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Auditor-General
of Victoria

SPECIAL REPORT No. 56

ACUTE HEALTH SERVICES UNDER CASEMIX

A case of mixed priorities

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AUDITOR-
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The President

The Speaker

Parliament House

Melbourne Vic. 3002

Sir

Under the provisions of section 16 of the *Audit Act* 1994, I transmit the Auditor-General's Special Report No. 56, *"Acute health services under casemix: A case of mixed priorities"*.

Yours faithfully

C.A. BARAGWANATH
Auditor-General

Contents

Foreword

In presenting a Report covering the management of acute health services funded under casemix, it needs to be acknowledged that health care is a complex and highly emotive field and, as such, there is considerable scope for a divergence of views to be expressed.

This Report is not designed to create public alarm or fuel community concerns. The opinions of the most senior clinicians on topics such as the effect of government reforms on quality of patient care, where in the negative, demonstrate a perceived need for change and improvement, rather than provoking a climate of fear among those electing to use the public hospital system in Victoria.

Although a multitude of views, based on the professional judgement of senior clinicians often with more than 10 years experience in the Victorian public hospital system, may be seen as dominating the Report and influencing the reader to form a negative view of the public hospital system, it needs to be acknowledged that no information was received indicating that any member of the public was placed in a life-threatening situation. In fact, the technical competence of those clinicians is not in question.

What the audit did find is that in pursuing an agenda of economic reform in a climate where demand for public hospital services is growing, pressure points inevitably occur in various forms such as the impact on waiting times and quality of care.

Whether these issues can be tolerated and managed in the best interests of the patient, given the constraints that face the acute health industry, pose a dilemma for health authorities and will continue to be a matter of debate and much conjecture among the many sectors of the acute health industry.

In response to the Report, the Department of Human Services, apart from some quibbling about the audit methodology, has reacted positively by electing to undertake special endeavours, in conjunction with the networks, hospitals and clinicians to address the major issues. Further, the Minister for Health has personally indicated to me that the Report provides value to the Department and the acute health industry.

One of the comments received from a senior clinician that could be seen as worthy of particular mention in future deliberations on the effect of government reforms on the delivery of acute health services is as follows:

> *"The basic problem is obviously having less money. It is the amount that casemix dispenses, not casemix itself, that is the problem".*

It was reassuring to find that subsequent to the audit, additional funding has been allocated through the 1998-99 State Budget to improve the delivery of acute health services. Particular initiatives include additional funding to:

- meet demand pressures arising from a growing and ageing population, and the continuing decline in the number of patients with private health insurance; and
- provide for new capital investments in relation to infrastructure development in metropolitan and non-metropolitan hospitals, and the upgrade of equipment.

It was also encouraging to find that the goals and strategies identified in this year's State Budget address, in a positive manner, many of the issues raised in this Report.

C.A. BARAGWANATH
Auditor-General

Part 1

Executive summary

Part 1.1

Overall audit conclusion

Value added features of Report

1.1.1 Audit findings contained in this Report are intended to provide value to the Department of Human Services and the acute health industry in terms of assisting in the achievement of high level goals relating to accessibility, responsiveness, performance and efficient management, and protecting and caring for those patients at risk. The Department's Acute Health Program manages outlays of almost $2.5 billion annually.

Constraints

1.1.2 In examining issues of potential risk on a Statewide basis, this Report provides the Department with an opportunity to complement the many continuous improvement initiatives already in place both at a central level and throughout the network and hospital systems. Audit acknowledges, however, that there are many extraneous factors, such as funding constraints, fewer people having private insurance cover and an ageing population, that impact in varying ways on the delivery of effective acute health services.

Broad audit objective

1.1.3 Given these circumstances, the audit was directed at providing the Parliament, the health care industry and the public with an independent assessment at a macro level of the way in which certain aspects of acute health services and the Government's associated major policy reforms (i.e. the introduction of substantial reductions to hospital budgets in 1992-93 and 1993-94, the requirement for productivity savings to be achieved and the implementation of casemix funding as from 1 July 1993) have been managed.

Rationale for industry-wide survey

1.1.4 I elected through necessity to seek the views of senior administrative managers, doctors, nurses and allied health professionals as:

- baseline data to measure subsequent changes in quality of care were not established;
- appropriate performance measures of acute health do not exist in many areas; and
- substantial doubt has been cast internationally on the reliability of patient satisfaction surveys.

1.1.5 Most of the clinicians surveyed have worked in the industry for over 10 years and have been charged with the responsibility of managing acute health services at the hospital ward level. These views were representative of a broad cross-section of the entire acute health industry.

Measures to assess and improve quality of care

1.1.6 The lack of universally acceptable performance measures to assess quality is a problem not unique to Victoria, but is an issue facing health care administrators throughout the world. In this regard, there has been an increased commitment by the Department in recent times to address the issue of performance measurement of quality of patient care at a system-wide level. This work culminated in the release by the Department of a discussion paper in October 1997 titled *Acute Health Performance Indicators: Strategy for Victoria* which, as a first step, outlines a proposed framework for the progressive development of indicators to promote quality improvement at a system-wide level. In addition, in early 1998 the Department created a senior position within its Acute Health Program to address issues relating to quality and access.

Role of the entire industry in quality measurement

1.1.7 To complement the Department's role in policy formulation, there is also a responsibility on network and hospital boards, and through them on Chief Executive Officers and all staff, to contribute to the implementation of appropriate measurement and feedback systems as should be expected of an industry of this size and importance.

SUMMARY OF MAJOR AUDIT CONCLUSIONS

Progressive improvement in management

Difficulties in disentangling effects

1.1.8 Given the constraints that have faced the acute health industry, audit concluded that the management of certain aspects of acute health services funded under casemix by the Department, health care networks and public hospitals had progressively improved. Based on the views of the acute health industry, the effect of casemix on the delivery of acute health services cannot be clearly separated in all cases from the significant funding cuts introduced as part of the Government's micro-economic reform of the hospital industry. What is clear, however, is that these measures in totality have had both positive and negative effects on acute health services.

Casemix superior to previous funding system

1.1.9 It is audit's view that casemix, which is a sophisticated output funding instrument, is clearly a superior mechanism to the previous historically-based budgeting process in that:

- it is a driver of improved efficiency as it pays networks and hospitals a set price for a defined group of clinical services;
- networks and hospitals can see at a macro level the basis of funding allocations;
- it provides the Department with a flexible instrument to manage the delivery of acute health services through, for example, the inclusion of financial incentives to networks and hospitals to achieve policy objectives;
- it provides a fairer means of funding networks and hospitals, especially in the context of an overall budget reduction; and
- it rewards networks and hospitals in accordance with the number of patients treated, rather than guaranteeing funding for an unknown volume of services.

Efficiency gains

1.1.10 One of the major objectives of government since mid-1992 has been to secure substantial efficiency gains in the hospital sector. This objective has been effectively met. Significant efficiencies have been achieved in terms of increased throughput (predominantly in Same Day admissions), productivity gains, cost savings in hospital services, improved access to elective and emergency services, shorter length of hospital stays and fewer situations where hospitals have needed to revert to ambulance bypass.

Deterioration in quality of care

1.1.11 In relation to the key objective of safeguarding quality, there is a *prima facie* case to suggest that the pace and breadth of change derived from the relatively narrow policy focus of achieving efficiency gains in the formative years of casemix funding have been factors which have adversely impacted on some aspects of quality of patient care. The extent to which quality of care has declined is difficult to substantiate conclusively. In this regard, the audit disclosed conflicting views between administrative managers and senior clinicians about the impact of casemix and micro-economic reforms on the quality of care in Victorian public hospitals. Network heads, who manage 75 per cent of all acute care in Victoria, have a more positive view than the senior management of smaller hospitals. However, the overwhelming majority of senior clinicians, who according to specialist advice obtained by audit are best placed to assess the quality of care, feel that quality has deteriorated since the massive reforms were introduced into the public hospital system in Victoria some 5 years ago. Despite the recent introduction of quality-related initiatives, certain vulnerable patient groups such as the chronically ill may be at risk due to practices adopted by networks and hospitals in response to casemix. In addition, quality may not be safeguarded as various undesirable elements of continuity of health care provision have also arisen from the fragmentation of funding.

Other objectives of casemix

1.1.12 The remaining objectives for the introduction of casemix, such as reducing waiting lists and developing a system that was free from centralised bureaucratic control, have been met to varying degrees.

1.1.13 Other key conclusions drawn from the audit are summarised below:

Fragmented nature of funding - impact on health service integration and substitution

- Although the funding formula is viewed by the Department as a flexible mechanism that responds to changing needs, casemix in its current form only applies to the funding of services relating to acute health. This reinforces the fragmented nature of funding in the health industry where some health services are funded by the Victorian Government, the Commonwealth Government or both. In addition, the ability of managers to move resources between different program areas is limited. As such, current funding arrangements do not readily promote service integration, especially with other types of non-acute health care, or the substitution of acute hospital care with other forms of more appropriate community-based care. These factors expose some vulnerable patient groups to elements of risk. It is acknowledged, however, that through various sub-programs, such as Hospital in the Home and post-acute care, as well as the piloting of Commonwealth-sponsored coordinated care trials in 2 networks, innovative models have been introduced by the Department.

Financial performance

- There has been a deterioration in the financial performance of certain networks and hospitals since 1992-93, with some now more heavily reliant on public donations and cash injections from the Department. The sustainability of this course of operation is questionable. The extent to which reductions to hospital budgets and the associated introduction of casemix funding have contributed to this situation, compared with other factors such as poor business management and inadequate infrastructure, is open to conjecture.

Lack of baseline data to assess trends in quality

- The time frame for the implementation of casemix funding did not permit the former Department of Health and Community Services to develop appropriate quality indicators nor establish baseline data against which assessments of quality of care could be made post-casemix. In addition, appropriate indicators of quality of care at the time of the introduction of casemix were not sufficiently developed either in Australia or overseas.

Health outcomes

- Procedures to monitor and assess health outcomes are in the developmental mode and, as is the case in other jurisdictions, have not been widely implemented at this stage. While audit is fully aware of the complexity of this task, the Department should consider assigning a higher priority to outcome measurement as a means of monitoring the quality of health care throughout Victoria.

Scope for greater transparency

- While criticism has been levelled at the Department in relation to a perceived lack of transparency in certain aspects of the formula, audit was advised by the Department that this was largely attributable to smaller rural hospitals experiencing difficulties in terms of the complexity of the formula. Audit is of the view that casemix funding is more transparent than historically-based funding and, although the Department has consulted and communicated extensively with networks and hospitals, especially in recent years, there is scope to provide a greater level of detail to the industry to explain the rationale for major funding and policy decisions. In this regard the Department has indicated its preparedness to work with bodies such as the Victorian Healthcare Association Limited to put in place further targeted education and information initiatives.

Potential for manipulation of data

- As is the case in any output pricing system, there is potential for manipulation of throughput and waiting list data to maximise returns or avoid penalties. The Department has an ongoing system in place to safeguard the accuracy of throughput data upon which funding is based and has recently introduced a new control system to provide additional management information on waiting lists. It is too early to assess the effectiveness of this new system.

Clinical costing systems

- Clinical costing systems designed to enhance management reporting and monitoring of costs associated with clinical services existed mainly in the larger public hospitals, as the administrative mechanisms needed to support such systems are considered too costly for smaller hospitals. Audit suggested alternative strategies for improving cost information for both clinical and general management purposes in small hospitals. The Department has advised of its willingness to work with bodies like the Victorian Healthcare Association Limited to examine alternative approaches for smaller hospitals.

Impact of government reforms on non-hospital sector and non-direct patient care activities

- Audit was not aware of any completed evaluative studies to assess the indirect impact of casemix funding and budget reductions, if any, on programs or service providers in the non-hospital sector and non-direct patient care activities of hospitals such as teaching and research. The qualitative research undertaken by audit would seem to indicate that the effects in some quarters are serious.

STRATEGIES FOR THE FUTURE

Environmental factors

1.1.14 Any strategies should be considered in the context that fiscal constraints are a reality of all governments and it is recognised that within various segments of an industry there will be some resistance to micro-economic reform. There are no simple solutions to the complex problems that are evident in the provision of acute health services, particularly in light of the increasing demand for services by a growing and ageing population; the increasing cost of new technologies and clinical treatments; and the need for better coordination and integration of care, often across the boundaries of funding programs and even levels of government.

Period of consolidation

1.1.15 Despite the efforts of those responsible for policy development and driving implementation, various policy directions do not appear to have been accepted by some elements of the hospital work force. One sentiment that has been suggested to audit from several quarters is that there is a need for a period of consolidation where the Department, administrators and clinicians can examine what is required to achieve long-term and sustainable gain.

Strategies to address risk

1.1.16 In the context of the above constraints, audit's findings highlight a potential risk to the provision of effective acute health services in this State. The following high level strategies are suggested as a means of redressing, over an appropriate time frame, many of the issues that have emerged from audit's inquiries:

Quality and patient care

- The introduction of enhanced mechanisms to measure and subsequently improve quality of patient care. These mechanisms need to be aimed at all levels from the individual clinicians, through to hospital management, network and hospital boards and the Department centrally. Audit agrees with the Department's view that such mechanisms should ideally be educative and supportive, but ultimately intolerant of poor quality. In this regard, audit's survey results could be used by the Department in establishing relevant baseline data for future examinations aimed at evaluating the effectiveness of recent initiatives;

Incentives for improved health outcomes

- The introduction of appropriate financial incentives to:
  - reward hospitals for the achievement of improved health outcomes arising from the application of specific clinical procedures; and
  - encourage hospitals to monitor the outcomes of their services and to include outcome monitoring as an inherent part of the care process;

Integration of services

- Improved continuity of care through the integration of services across the health care spectrum by basing funding on whole episodes of care. This necessitates the elimination of the fragmentation of Commonwealth/State programs, improved cohesion between State-funded programs, improved information technology that allows for clinical record transfer and the tracking of patients across all health care providers subject to adequate privacy considerations;

Service substitution

- The Department should allow for the substitution of activity targets between the different divisions of the Department by permitting substitution of services across program lines, such as from acute care to aged care. Substitution should be on the basis of business cases developed by networks and hospitals. As part of this process, networks and hospitals would be required to demonstrate that such substitution will improve service delivery and health outcomes for specified client groups, be measurable and also be required to meet other criteria such as those relating to elective and emergency services enhancement programs and budgetary requirements. While audit acknowledges that output-based funding tools for specific programs inherently limit the ability of managers to move resources between different program areas and to be innovative, this suggested strategy is aimed at building on initiatives contained in the Department's 1997-98 *Victoria - Public Hospitals Policy and Funding Guidelines*;

Vulnerable patient groups

- Greater focus on high-risk and vulnerable patient groups through improved monitoring of access to acute health services by the aged, those who are chronically ill and socio-economically disadvantaged groups;

Purchasing role of the Department

- Further development of the role of the Department in relation to the purchasing of services to:
  - better reflect community needs by setting network and hospital activity targets on a population rather than a historical basis; and
  - provide for the greater specification of the types of services, the quality standards that apply and the monitoring of health outcomes from services purchased;

Capital funding

- The development of an agreed strategy to address the:
  - level of capital funding provided to networks and hospitals (including equipment and technology funding);
  - resolution of ownership of hospital assets; and
  - funding for capital through the casemix formula as originally intended by Government.

Co-operation and information sharing

- Strengthening co-operation and information sharing within and between the Department, network and hospital management, and clinicians to promote a culture of continuous quality improvement. As part of this process, safeguarding quality of patient care and efficient service delivery should be essential features; and

Accountability frameworks

- Clearer accountability frameworks outlining who is responsible for the various aspects of service delivery and quality are required. One mechanism to promote this end would be for Hospital Boards to be required to produce an annually revised strategic plan, not just a business plan, addressing areas such as customer service and satisfaction, human resource management and morale, and quality improvement and health outcomes;

Subsequent audit or investigation

1.1.17 In order to enable the acute health industry to capitalise on recent gains and promote a better quality patient care system, there is a compelling case for further examination of certain issues raised in this Report in a subsequent audit or investigation at a more focused level. The matters in question are listed below:

- the basis for admitting some patients, i.e. whether financial considerations compared with clinical need are of a higher priority;
- the level of access of certain groups of patients under the casemix formula (e.g. the elderly, the chronically ill, those suffering multiple illnesses and cancer patients) and access of outpatients to services;
- the effect of patient access to critical care services, elective surgery and emergency services on quality of patient care;
- patient access to allied health services;
- pressures placed on the non-hospital sector through the earlier discharge of patients from public hospitals;
- administrative workload and work demands on doctors and nurses;
- cleanliness of hospital facilities (audit was advised by the Department that the findings from its specially commissioned audit of infection control practices in hospitals will be released shortly);
- the state of equipment and hospital infrastructure; and
- financial position of networks and hospitals.

Overall summary comment

1.1.18 In summary, there are achievements to be acknowledged and various weaknesses and deficiencies which can be addressed. Work in some areas identified by audit is underway. This Report should not be seen as apportioning blame, but raises issues that are aimed at improving acute health services for the community.

Part 1.2

Summary of major audit findings

QUALITY OF CARE **Page 65**

- Thirty-eight per cent of hospitals indicated that the government reforms have led to a deterioration in quality of care in their hospital.

  Paras 4.37 to 4.39

- Two-thirds of the senior doctors, charge nurses and senior allied health professionals maintained that the overall effect of the government reforms on the quality of clinical care and supportive care has been a deterioration in the quality of care.

  Paras 4.40 to 4.47

- In general terms, around two-thirds of the senior clinicians but in some cases more, considered that the following factors, influenced by government reforms, contributed to a deterioration in the quality of hospital care:
  - the administrative workload;
  - the cleanliness of hospital facilities and the number of cleaning staff;
  - the maintenance of equipment;
  - the maintenance of hospital buildings;
  - patient access to allied health services;
  - work demands on doctors; and
  - work demands on nurses.

  Paras 4.48 to 4.51

- One-third of the senior clinicians considered that patient access to critical care services and elective surgery have contributed to a deterioration in quality of care in their hospitals, while in terms of patient access to emergency services, one-quarter of clinicians claimed a deterioration in care.

  Para. 4.53

QUALITY OF CARE *- continued* **Page 65**

- At the time of audit, around one-quarter of the senior clinicians, and in some cases higher proportions, rated the standard of the quality of supportive care in their hospitals as low in the following categories:
  - counselling services for patients;
  - hospital cleanliness (between 40 and 50 per cent);
  - interpreter services (approximately 40 per cent);
  - physical environment;
  - privacy of patients; and
  - the standard of equipment.

  Paras 4.55 to 4.57

- Forty per cent of hospitals disagreed that the quality of care has been effectively safeguarded.

  Paras 4.58 to 4.61

- Nearly half of the senior doctors disagreed that current procedures in their hospitals effectively safeguarded the quality of *clinical* care. Slightly more than half of the senior doctors and 4 out of every 10 charge nurses and senior allied health professionals disagreed that current procedures in their hospitals effectively safeguarded the quality of *supportive* care (e.g. cleaning services and communication to patients).

  Paras 4.58 to 4.61

- In order to complement current quality initiatives, additional strategies could be adopted such as improved service planning, more targeted purchasing policies and the linking of financial incentives to achieving patient outcomes.

  Para. 4.72

- Fifty-eight per cent of hospitals claimed that the goal of efficiency has directly competed with the provision of quality of care.

  Paras 4.77 to 4.79

- Around 8 out of every 10 senior clinicians indicated that the goal of financial efficiency has directly competed with quality of clinical and supportive care.

  Paras 4.77 to 4.79

- Half the rural hospitals and around 8 out of every 10 senior clinicians disagreed that casemix had achieved its primary objectives of improving hospital productivity and equity of funding without any observable reduction in quality.

  Para. 4.80

- Around 4 out of every 10 senior clinicians stated that since the introduction of casemix the quality of inpatient services provided to the chronically ill, the aged and to socio-economically disadvantaged groups had worsened in the hospitals that they had worked.

  Para. 4.82

- Half of the senior doctors held the view that reduced lengths of stays since the introduction of casemix had a negative effect on health outcomes in terms of patient care.

  Para. 4.101

QUALITY OF CARE - *continued* — Page 65

- Fifty-seven per cent of senior doctors and nearly half the charge nurses and senior allied health professionals did not believe that risks associated with early discharge have been adequately safeguarded by initiatives to improve home nursing care.

  Paras 4.104 to 4.105

- One-third of the senior doctors and senior allied health professionals and one-quarter of the charge nurses felt that, given the changes that have occurred under casemix, the links between their hospitals and community support services have been weakened.

  Paras 4.104 to 4.105

- Forty-three per cent of senior doctors felt that a shortage of doctors for rural hospitals has impacted on the level of access to acute hospital services in rural Victoria.

  Paras 4.106 to 4.109

- In the vicinity of 6 out of every 10 senior clinicians held the view that changes in patient care have not been properly measured and monitored in terms of quality of clinical care and supportive care. However, this view is not supported by the majority of networks and hospitals.

  Paras 4.129 to 4.131

HEALTH OUTCOMES — Page 139

- Half of the networks and 35 per cent of hospitals maintained that government reforms have improved health outcomes.

  Para. 5.6

- Half of the networks and 37 per cent of hospitals disagreed with the statement that health outcomes have been adequately monitored.

  Para. 5.10

- Four out of 6 networks and around 4 out of every 10 hospitals regarded the current hospital-wide medical indicators as too broad to detect significant trends in health outcomes for particular patient groups.

  Para. 5.10

- Four out of 6 networks and over 80 per cent of hospitals and senior clinicians agreed there was a fragmented approach to measuring health outcomes.

  Para. 5.11

EQUITY OF ACCESS TO HOSPITAL SERVICES — Page 147

- The Department of Human Services should be commended for introducing financial incentives to reduce waiting times for elective surgery and emergency treatment or admission.

  Para. 6.18

- Access to emergency services has improved.

  Paras 6.24 to 6.25

- Since the introduction of casemix funding, the number of urgent and semi-urgent cases on the waiting list has declined, however, the overall number of non-urgent cases and the total patients on the waiting list has increased.

  Paras 6.26 to 6.35

- There has been a substantial increase in elective surgery throughput from July 1993 to July 1997.

  Para. 6.27

- The number of patients on published waiting lists is reduced as patients are transferred from waiting lists to booking lists for up to 6 weeks prior to surgery unless subsequently cancelled where re-booking provisions would apply.

  Para. 6.16 and paras 6.29 to 6.32

- A more relevant indicator of access to elective surgery than waiting list numbers is the waiting time per speciality.

  Para. 6.37

- The Department undertakes extensive monitoring of waiting list data to identify trends and anomalies in the data.

  Paras 6.44 to 6.47

- Views were divided among networks on whether the setting of quarterly elective surgery targets was conducive to the effective management of waiting lists. Some networks and hospitals favoured seasonalising targets or the payment of bonuses based on waiting times, rather than on waiting list numbers.

  Paras 6.47 to 6.51

- The capacity of networks and hospitals to provide adequate access in certain circumstances is questionable based on the following:
  - 4 out of 6 networks and 13 hospitals stated their systems would be overloaded by seasonal increases in patient admissions; and
  - half the networks and 4 hospitals rated their capacity to meet the demand for intensive care beds as overloaded.

  Paras 6.53 to 6.55

- Networks and hospitals were generally satisfied with their capacity to cater for emergency department admissions.

  Para. 6.55

EQUITY OF ACCESS TO HOSPITAL SERVICES - *continued* Page 147

- The average case complexity for Multi-Day patients increased in the first 2 years of casemix. This trend is likely to reflect the transfer of less complex procedures to Same Day procedures.

  Paras 6.67 to 6.73

- Half of the networks, two-thirds of metropolitan hospitals and one-third of rural hospitals believed they seldom or never received adequate compensation for higher cost patients. The major concern was that casemix funding was based on an average.

  Paras 6.74 to 6.77

- Around one-third of hospitals indicated they changed admission practices since 1 July 1993 to encourage an increase in throughput for a particular class of patients. Examples provided by some hospitals included privately insured patients and those more highly rewarded under casemix.

  Paras 6.92 to 6.95

EFFICIENCY GAINS Page 185

- Substantial efficiency gains have been achieved since casemix was introduced. In assessing the full extent of efficiency gains, it needs to be acknowledged that there have been changes in output definition (e.g. the re-classification of outpatients as inpatients) and more accurate recording of throughput by hospitals.

  Paras 7.1 to 7.4 and 7.10 to 7.14

- There was widespread agreement among networks and hospitals that, by paying a total unit price (benchmark price) for a defined set of services and more explicitly linking the provision of clinical care with the price paid for delivering that care, casemix funding required management to more closely consider efficiency of activities.

  Para. 7.18

- The greatest efficiency gains from the introduction of casemix were achieved in 1993-94 and 1994-95.

  Para. 7.13 and paras. 7.21 to 7.26

- There was substantial agreement among networks and hospitals that staff productivity has increased since the introduction of casemix funding and micro-economic reforms.

  Paras 7.27 to 7.28

- One-third of networks and around 60 per cent of hospitals treated extra patients not funded by the Department, which accentuated financial pressures on these organisations.

  Paras 7.29 to 7.31

- All networks and metropolitan hospitals and two-thirds of rural hospitals confirmed that productivity had improved through changes in clinical practice.

  Para. 7.34

EFFICIENCY GAINS *- continued* **Page 185**

- Although the average length of stay for a patient was on the decline prior to the introduction of casemix, the most rapid decreases occurred in 1993-94 and 1994-95. Since 1995-96, the average length stay has remained relatively constant.

  Paras 7.37 to 7.39

- Two-thirds of networks and nearly half the metropolitan hospitals believed that further efficiency savings are possible through greater service substitution.

  Paras 7.40 to 7.50

- The Department responded to contain the financial implications of excessive growth in Same Day medical services by setting targets and modifying payment rates.

  Paras 7.51 to 7.52

- The capping of Same Day medical targets at 1994-95 activity levels by the Department preserved any inequities between hospitals in terms of the varying levels of Same Day services provided at that time. This capping of services prevented further substitution of Multi-Day care for Same Day care in circumstances where this is the more appropriate form of care.

  Paras 7.53 to 7.54

- The overall rate of Multi-Day separations has remained constant at pre-casemix levels. However, Same Day medical services have increased by approximately 64 per cent.

  Para. 7.42 and paras. 7.58 to 7.60

- The Department provided $1 million in 1997-98 for service substitution. However, the casemix formula does not readily encourage hospitals to substitute profitable acute health services for potentially more effective non-hospital care.

  Paras 7.61 and 7.65

- The Department could encourage the substitution of health care services through the casemix formula by permitting networks or hospitals to convert relative proportions of their acute health funding into funding sources for other forms of care, subject to meeting other conditions including acute health policy objectives.

  Para. 7.66

- Half of the networks and two-thirds of hospitals indicated there were major barriers to improving service efficiency. Examples cited included community opposition and the time span involved in changing cultures and historic work practices.

  Paras 7.69 to 7.70

- In order to assist networks and hospitals under financial pressure, the Department provided a loan or grant to 2 health care networks (Western and North Eastern) and 3 hospitals (Ballarat Health Services, Wimmera Hospital and Latrobe Regional Hospital).

  Para. 7.82

- Net current assets of health care network hospitals declined by 94 per cent from $76 million to $4.4 million between 30 June 1993 and 30 June 1997.

  Paras 7.89 to 7.90

EFFICIENCY GAINS - *continued* — Page 185

- The operating surpluses of health care network hospitals (before capital, depreciation and abnormal items) declined by 88 per cent from $80.8 million to $9.4 million between 30 June 1993 and 30 June 1997. In addition to the Western Health Care Network, 19 hospitals recorded operating deficits for 1996-97.

  Paras 7.91 to 7.95

- Some networks are increasingly reliant on donations in certain circumstances to supplement government funding.

  Para. 7.93

CASEMIX FORMULA — Page 223

- Through continuous improvement by the Department, the casemix formula has become an increasingly sophisticated funding tool for the purchase of acute health services from the hospital sector.

  Paras 8.21 to 8.24

- Casemix is a more transparent funding system at a macro level than the previous historically-based funding system. Transparency could be further improved by providing additional details of how major decisions such as the price of services funded were reached.

  Paras 8.32 to 8.37

- There is a lack of documentation to account for decisions made early in the development of the casemix funding formula, such as the setting and distribution of base level throughput targets.

  Paras 8.41 to 8.42

- The purpose of the Fixed Overhead Grant is not well defined by the Department. Although the stated intention is to compensate hospitals for infrastructure costs, the calculation of the Grant is based on a notional rate rather than reflecting actual costs.

  Paras 8.43 to 8.46

- The Department should review base level throughput targets to ensure the demand for acute services is met equitably across the hospital system as envisaged by the Metropolitan Health Services Plan and departmental objectives.

  Paras 8.47 to 8.50

- There is a lack of accountability by hospitals for the use of funds for training and development.

  Paras 8.51 to 8.56

- Two-thirds of networks and hospitals experienced difficulty in managing acute care activities under casemix funding due to a variety of reasons such as ongoing changes to funding arrangements, lack of information technology to support casemix and the complexity of the formula.

  Paras 8.59 to 8.61

CASEMIX FORMULA *- continued* **Page 223**

- Five out of 6 networks rated the opportunity to provide feedback to the Department on the casemix formula as either satisfactory or extensive.

  Para. 8.70

- According to the majority of hospitals which were mainly rural, the Department did not equitably administer the tender process for additional WIES (weighted inlier equivalent separations). Similar concerns were raised in regard to the calculation of various components of the formula.

  Paras 8.75 to 8.80

- Funding inequities occurred between hospitals due to historical differences in levels of patient specialisation, the provision of Same Day services and capital output ratios. These funding inequities need to be addressed by the Department through the casemix formula.

  Paras 8.81 to 8.87

- The fairness of the Department's tender process needs to be improved through disclosure of priority acute health care services and tender assessment criteria.

  Paras 8.88 to 8.90

- According to most networks and hospitals, the variable component of the casemix formula linked to WIES should cover the costs of capital, quality of care, health promotion, patient education, counselling services and the development of medical technology.

  Paras 8.91 to 8.98

- There are a number of issues involving capital funding that require resolution such as the ownership of assets, the adequacy of capital funding and the inclusion of the cost of capital resources consumed as part of the casemix formula.

  Paras 8.107 to 8.117

- The casemix funding system is not conducive to providing a fully integrated system of health care delivery as:
  - casemix is confined to the acute phase of an episode of care only;
  - a common unique patient identification system has not been developed; and
  - expanded patient group classifications covering the whole episode of care are not in use.

  Paras 8.118 to 8.125

- Smaller hospitals are under-represented in the Department's cost-weight studies as they are not in a position to implement resource intensive patient costing systems. In order to obtain reliable patient cost data, smaller hospitals should be encouraged by the Department to implement less expensive patient cost modelling systems.

  Paras 8.154 to 8.157

- The 1996-97 cost-weight study showed that 12 per cent of patient group classifications lack some reliability as a result of poor identification of costs.

  Paras 8.158 to 8.160

CASEMIX FORMULA - *continued* — Page 223

- Audit's assessment of the annual change in the values of cost-weights for the 21 patient group classifications exhibiting the highest growth in throughput revealed marked fluctuations from one year to the next. The volatility of the cost-weights for these high volume classifications reduces the certainty with which networks and hospitals can plan and manage acute health services and raises doubt on the ability of the casemix formula to provide equitable funding to networks and hospitals.

  Paras 8.170 to 8.171

- Hospitals that generally treat patients with a higher severity of illness such as the Peter MacCallum Cancer Institute are not in a position to cross-subsidise acute services which are less profitable under the casemix formula.

  Paras 8.172 to 8.175

- Audit found no evidence that the Department manipulated cost-weights in developing the acute health budget. However, to improve transparency, explanations for major cost-weight adjustments should be incorporated by the Department in its policy and funding guidelines for hospitals.

  Paras 8.177 to 8.179

- The Department has instituted an audit methodology designed to ensure the integrity of data upon which casemix funding is based. This methodology has been reviewed and refined by the Department.

  Paras 8.183 to 8.192

SECONDARY IMPACTS — Page 287

- The majority of networks and hospitals considered that patient needs and better health outcomes can sometimes be more effectively met if particular health care interventions are made by community-based health care practitioners rather than in an acute hospital setting.

  Para. 9.8

- The availability of post-acute services under the Hospital in the Home initiative has improved since its introduction in 1995.

  Para. 9.9

- The majority of senior clinicians regarded community services for patients on discharge and places in nursing homes or special accommodation as inadequate. Hospitals held the opposite view.

  Para 9.11

- At the time of the initial implementation of casemix funding, the Department lacked policies in relation to the potential need for improved community health care services.

  Para. 9.13

- The majority of networks and hospitals as well as the Department believed that linkages between hospitals and community-based health care services have been strengthened since the introduction of casemix funding.

  Paras 9.19 to 9.20

SECONDARY IMPACTS - *continued* Page 287

- Casemix funding has required networks and hospitals to focus on discharge planning and improving links between acute services and community health care providers.

  Paras 9.22 to 9.24

- Most networks agreed that the drive for efficiency gains had contributed to hospitals, in some cases, shifting costs:
  - to community-based providers such as general practitioners; and
  - by transferring post-acute inpatients to lower category hospitals.

  Paras 9.25 to 9.36

- Most hospitals agreed that efficiency gains made in the hospital sector may have had a negative impact on the broader health care system such as the community health support sector.

  Paras 9.37 to 9.41

OBJECTIVES AND ROLES Page 313

- The Department needs to complement its focus on efficiency in health service delivery by purchasing services that meet community health needs.

  Para. 10.27

- Service planning for acute health, particularly for rural regions, was not well developed by the Department.

  Para. 10.28

- In the absence of well developed service planning, the Department places reliance on hospital morbidity data (i.e. the rate of illness and disease in the community) to assess demand for acute health services. However, this information is a reflection of acute health services supplied rather than those needed.

  Para. 10.31

- The Department should invite tenders to meet gaps in acute health services identified through service planning processes.

  Para. 10.32

- The Department should purchase acute health services that have proven value, based on evidence-based medicine.

  Para. 10.32

- In the absence of any policy direction from the Department on the relative importance of the various objectives for the introduction of casemix funding, there was a high level of agreement between networks and hospitals in prioritising casemix funding objectives. All rated the objective of safeguarding quality of care as one of the least important when casemix funding was initially introduced.

  Paras 10.44 to 10.48

OBJECTIVES AND ROLES- *continued* Page 313

- Audit considered that casemix, with some qualifications, had achieved its major objectives of improving the efficiency of hospitals and introducing a fairer basis for funding hospitals. The objective of safeguarding quality of care had been less successfully met.

  Paras 10.49 to 10.102

- The application of the Government's Competitive Neutrality Policy has the potential, in certain circumstances, to result in the Government paying more for the provision of services.

  Paras 10.85 to 10.90

- Further measures should be taken by the Department to ensure the introduction of private competition into the public hospital system is compatible with the concept of health services integration, as proposed under the Metropolitan Health Services Plan released in October 1996.

  Paras 10.91 to 10.96

- One-third of networks and two-thirds of hospitals indicated that casemix contains perverse incentives that could potentially undermine the delivery of particular acute health services.

  Paras 10.103 to 10.105

- The roles of the Department, regional offices, networks and hospitals are well defined. However, doubt was expressed by networks and hospitals on the effectiveness of the involvement of the Department's metropolitan regions in acute health.

  Paras 10.106 to 10.114

INITIATIVES AND STRATEGIES FOR IMPROVEMENT Page 345

- A wide variety of clinical and administrative management changes had been introduced by hospitals in response to casemix and government reforms such as:
  - the reduction in core service expenditure; and
  - improved discharge planning to reduce a patient's average length of stay.

  Paras 11.5 to 11.9

- Nearly half of all hospitals indicated they were involved, either to some extent or to a large extent, in cost shifting to Commonwealth-funded areas.

  Para. 11.8

- Networks have introduced strategies under the Government's acute health reforms such as the reorganisation and restructuring of activities, the adoption of a more decentralised management approach, service redistribution and resource reallocation.

  Para. 11.13

- Hospitals have devoted more resources to admission and discharge planning and bed management to cope with the tension in allocating beds between elective and emergency admissions.

  Paras 11.16 to 11.18

INITIATIVES AND STRATEGIES FOR IMPROVEMENT - *continued* **Page 345**

- Most hospitals have developed patient charters detailing service obligations and patient rights.

  Paras 11.21 to 11.22

- There is scope for disclosure of more comprehensive information to the public. Overseas experience from the United States of America indicated that more patient information such as risk and severity adjusted mortality rates is disclosed to the public than in Australia.

  Paras 11.23 to 11.31

- The majority of networks, hospitals and senior clinicians agreed that casemix funding needs to include the right incentives to reward hospitals for throughput, emergency and elective management and quality and accessibility criteria.

  Para. 11.32

- Five out of the 6 networks indicated there was a need to relate funds to the health needs of their catchment population. Networks and hospitals indicated a broad range of areas where casemix funding could be improved. These included:
  - more appropriate payment to account for complexity of illness and long stay patients;
  - the provision of capital funding through the casemix formula;
  - additional incentives for quality of care; and
  - increased transparency of the basis for funding.

  Paras 11.34 to 11.36

- A wide cross-section of strategies and comments to safeguard or improve quality of care was offered by some of the most senior clinicians in the Victorian public hospital system. Some of the themes centred on the need for a greater focus on quality of care rather than efficiency, and funding related issues.

  Para. 11.38

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

Opinion surveys

This Report is called A Case of Mixed Priorities, it would be better named "A Case of Mixed Opinions".

The size of this Report by audit suggests weight and substance. Audit has tried to unravel difficult and important questions but has limited its scope and argument essentially to an opinion-based questionnaire. This opinion survey was undertaken in late 1997 during a period of industrial dispute and following a number of years of major reform.

During that period, hospital Boards were abolished and hospital cultures were changing. The new networks, the emphasis on planning, the development of new hospital services and more objective benchmarks created a climate of uncertainty and some resistance to change. It is also not surprising, and indeed is to be expected, that staff report reduced morale and increased workload, especially during a period of industrial dispute. The Report does not address this issue in its discussion of staff responses, although brought to audit's attention by the Department.

Consolidation of achievements

The sector is now entering a period of consolidation and the past constraints have lessened as witnessed in this year's Budget. This is not to say that all problems will be readily solved, nor that all clinicians will approve of the directions taken. It is also not to say that the complaints and issues raised in this Report should be disregarded as history. There are important issues raised here, most of which are being addressed. Some, particularly in terms of quality of care, show how vital it will be for the clinicians themselves to address these issues by participating in quality assurance processes and to be vigilant in maintaining the high quality of Victoria's health system. The Department has studied this Report carefully and will undertake special endeavours in conjunction with the networks, clinicians and hospitals to address the major issues.

The Department is pleased that the successes of casemix funding are firmly endorsed by the audit. As the Executive Summary states:

> *"It is audit's view that casemix, which is a sophisticated output funding instrument, is clearly a superior mechanism to the previous historically-based budgeting process".*

The Report further states:

> *"The Department has demonstrated a substantial commitment towards developing and implementing the casemix formula since its inception in 1993. The continuous refinement of the formula, which is a substantial improvement over the previously historically-based funding system, has been designed to prevent manipulation of the system by networks and hospitals and to provide a more equitable basis for funding. In addition, the initial development of the casemix formula and its smooth introduction, despite the radical change in the method of hospital funding, remain a significant departmental achievement."*

Audit recognises that substantial efficiency gains have been made in hospitals over the last 6 years.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

However, on the issue of quality, the Department has a mixed response. The Department's current program of strategies and initiatives for quality improvement in the Acute Health Sector is substantially endorsed by the audit although some are buried in the Report. The Report states that:

> *"At a network and hospital level, the audit survey revealed that the development of quality assurance plans and quality improvement programs was widespread, with most senior clinicians involved in such programs. Quality initiatives that the highest proportion of senior clinicians felt had improved quality of care related to changes in clinical practices (e.g. clinical pathways) and quality activities (e.g. quality studies or peer reviews)."*

The Department, however, believes certain sources of valuable evidence were not fully considered and audit did not fully tackle the problems in the depth required. The clinicians' opinion survey is contradicted by the Statewide patient satisfaction survey. These issues are discussed in more detail below.

Lack of depth

Little attention is given to the complexities of health services and to the consideration of all available evidence. Too much reliance is given to the opinion survey. It is this lack of context that weakens the usefulness of this Report. It does record the stated views of many groups within the health industry including the Department. Unfortunately, in its effort to record every opinion it has lost sight of the more important task of synthesising and commenting in some depth on the real issues.

The inadequacy of the basic methodology of this audit, and the willingness of audit to assert and recommend without a careful examination of the ideas, principles, or impact of these assertions, renders many of the recommendations as contradictory or unworkable. The audit team has shown little recognition and no understanding of broader economic and environmental factors and makes no comment on them in the analysis of the situation and in the recommendations for reform.

Even the findings of the Executive Summary which the Department largely supports is weakened by the pages of quotes without context. While this format enlivens the reading of this Report, it downgrades the importance of its subject matter and does not assist informed debate on matters of serious consequence for Victorians.

Overambitious brief

Audit's brief was too ambitious; to consider a total complex and dynamic industry, to identify casual changes over time; and to make substantial recommendations for the future, is an impossible task. Unfortunately, the results of an opinion survey to complex questions is not the best way of developing policy and moving forward into the next century.

Other health service reports

This Report is another of many reports dealing with health issues.

- *Victorian Health System Review, 1992*
- *Report of the Victorian Commission of Audit, 1993*
- *Independent Assessment of Casemix Payment in Victoria, 1994*
- *Victoria's Health to 2050: Developing Melbourne's Hospital Network, 1995*
- *Metropolitan Hospitals Planning Board: Phase 1 Report, 1995*

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

- *Metropolitan Hospitals Planning Board: Phase 2 Report, 1995*
- *A Healthier Future: A Plan for Metropolitan Health Care Services, 1996*
- *An Evaluation of Casemix Funding in South Australia 1994-95, 1997*
- *Reforms in Government Service Provision, Case Study: Public Hospitals in Victoria, Steering Committee for the Review of Commonwealth/State Service Provision, (Industry Commission), 1997*

Lack of public input

There has been a notable lack of public response to the Auditor-General's call for public submissions. There were only 11 public submissions received. In comparison, the first discussion paper on casemix funding issued by the Department in 1993 drew over 100 submissions, while the Metropolitan Hospitals Planning Board received over 400 public submissions for its Phase 1 and Phase 2 Reports.

Networks and regions

Since August 1995, metropolitan hospital funding has been provided through networks. Networks provide acute, aged care and mental health services. Some also provide other State-funded services like alcohol and drug treatment services. Some also provide Commonwealth-funded services and all provide private services. The Acute program funds about 70 per cent of network services, of which about 70 per cent is inpatient casemix. In other words, casemix funding of inpatients comprises about half of the total funding going to networks.

Networks have delivered considerable benefit in improved efficiency, through productivity dividends and increased internal levels of productivity. They have variously contracted-out an increasing level of non-clinical services, rationalised existing infrastructure within the networks and have brought a commercial approach to the management of the networks. Networks are beginning to improve the integration of services, for example between aged care and acute.

The roles of the network and regions in financial management and local service planning are clearly not acknowledged or understood in the Report. The Department's macro-planning role in terms of implementing the Metropolitan Health Plan; the current contestable service delivery program; the population factors currently taken into account within the formula; the complex matrix of State, network and regional roles and responsibilities are largely ignored. Other major initiatives across the various health programs that impact on acute health care are generally not considered within the Report.

Rural doctors

It is hard to understand how responsibility for difficulties in retention and recruitment of doctors to rural Victoria can be viewed by the Report as relating to casemix. This shows the problem with failing to determine the evidence and examine the situation in other parts of the country. The Australian Medical Workforce Benchmarks Report for the Australian Medical Workforce Advisory Committee shows that these kinds of difficulties are common throughout Australia.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Sample deficiencies

The hospital survey is clearly biased towards smaller rural hospitals. ninety hospitals were sent a questionnaire, 30 hospitals did not respond. Of the remaining 60, 47 were small rural hospitals. There are 113 hospitals in Victoria, of which 38 are metropolitan, and 75 non-metropolitan.

The Quality of Care questionnaire was sent to 1 118 individuals and 725 responded. The selection of the sample is not detailed. There are approximately 47 000 individuals employed in Victoria's hospitals.

The Report does not clearly specify the proportion of senior doctors and charge nurses who had worked in the Victorian public health system for over 10 years. It does not provide any statistics of the age, specialty or hospital, usual details provided as part of any opinion survey.

It does not show that the 393 persons who did not respond were similar in terms of years of experience; age; specialty; time in Victorian health system; type of hospital. The representativeness of the sample should be fully reported.

The very low response rate by councils 16 (23 per cent) and community health centres 5 (6 per cent) also casts doubts on the assertions made regarding service substitution and changes between inpatients and home care. It is a pity that this area was not studied in greater detail.

Poor questionnaire design

The questionnaire for the opinion survey has been considered by independent consultants, Campbell Research and Consulting, and found to be poorly designed. Its preparation has been described by independent expert opinion as "sloppy". The length and type of questions with their frequent double negatives are likely to have encouraged adverse responses. The questions are often ambiguous or too general.

The independent consultant stated that "the issues pertaining to poor survey design include:

- *"The questionnaire is very lengthy."*
- *"The questions are presented in an unstructured format, presenting similar questions in slightly different contexts giving an appearance of repetition."*
- *"The layout is poor."*
- *"Complex skip patterns that are likely to result in missing data for some questions."*
- *"The scales used are inconsistent and often unbalanced."*
- *"Some questions require a dichotomous (agree/disagree/DK), where a scale would be more appropriate (Strongly agree/agree/neither agree nor disagree/disagree/strongly disagree/DK)."*
- *"Several instances of two questions embedded within the one question, and it is not clear how such questions could be answered."*
- *"The questions are wordy and complex."*

The consultant also pointed out a confusing pattern of frequent shifts of perspective between questions of fact, questions of the respondent's opinion, and questions of the respondent's perception of the network or hospital's opinion.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Lack of comparison with other States

Compounding the problems of the questionnaire audit has made little attempt to substantiate these opinions with facts. It has made no attempt to measure causality through use of a control group. It did not, for example, test whether such views would also be held by clinicians in New South Wales. It did not attempt to measure Victoria's performance against other States despite the wealth of information in this area and the fact that references were provided by the Department.

It is notable that in recent weeks all States have claimed deficiencies in health funding. These States have different histories, different governments, different health expenditures and different methods of funding.

Inadequate analysis of opinion survey

The Report makes rudimentary attempts to separate rural from metropolitan hospitals on the advice of the Department. Were there differences across clinical groups or across hospitals? It did not attempt to assess the knowledge level or the scope of the response. How much did the respondents know about casemix funding? Or their internal hospital funding?

Audit has not considered the results in terms of internal consistency. Unlike a study in South Australia it did not consider opinions against the knowledge level of the respondents. It is insufficient to claim, as audit does, that length of time in the health system provides an objective or wide-ranging view. Opinion surveys measure broad opinions at a point in time. Ticks on a questionnaire must be considered as one source of information not as "professional evidence."

The lack of consistency across questionnaire responses is a well-known phenomena. In this Report, for example, 8 rural hospitals stated that they participated in the Cost-Weight Study, whereas the table below this statement clearly shows that only one rural hospital participated.

Interestingly there is an entirely inappropriate dismissal of the value of consumer opinion, despite extensive international literature on its use. It appears that some opinion surveys have value while others do not. Opinion surveys whether of clinicians about quality or patients about hospital care both suffer from similar analytical weaknesses.

Another example of lack of verification

The Report in paragraph 5.6 states: "there are 14 hospitals, most of which are located in rural regions, where in the opinion of the hospital CEO health outcomes have deteriorated". No further information is given. Audit should have taken the further step and verified the basis of this extreme statement. What measurement was used? Did those CEOs, indeed, have any knowledge of the measurement of health outcomes?

This is illustrative of many parts of the Report where the audit team does not verify extreme statements.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Views on vulnerable groups and high cost patients

The Executive Summary states that certain vulnerable groups such as the chronically ill may be at risk. Again, opinions are mixed, almost 50/50. For every clinician who believed access for the chronically ill had worsened, there was another one who believed there had been no change, or the situation had improved or the clinician did not give an opinion.

The Report claims throughout that there is inadequate compensation for high cost patients. The Report fails to fully acknowledge the facts provided by the Department and cited in the Report relating to outlier payments for long stay patients, the introduction of AN-DRG Version 3 with greater complexity and age splits, specified grants to cover high cost services and offset additional costs for interpreter services and Koori liaison officers.

Additional funding has been provided by the Department for a range of innovative programs, such as Hospital in the Home and post-acute care programs. In 1997-98, a fund of $10 million was established to facilitate the introduction of new treatments or clinical techniques that have been proven effective in public hospitals.

Independent specialists/Anti-casemix?

Audit cites the views of "independent specialists". Two of these specialists, Brian McCaughan and Deborah Picone, expressed the views in the Medical Journal of Australia (Vol. 167, 18 August 1997) that "aspects of the casemix payment system are inadequate" and "perhaps even counter productive to patient care". These do not seem to be the views of independent, unbiased specialists.

Inconsistencies and lack of clarity

The Report is frequently contradictory, without clear conclusions and with numerous inconsistencies. There is an extensive use of anecdotal material, often internally inconsistent. It frequently draws conclusions in the absence of any valid data, despite the audit's own statement that conclusions could not be drawn.

There is an almost total failure to question the knowledge and skills of hospital management, in favour of simplistic criticism of the Department.

Deterioration or not? Mixed and inconsistent hospital views

The summary of major findings leads with the statement that 38 per cent of hospitals indicated that government reforms have led to a deterioration in quality of care at their hospital. Yet this statement comes from the table listed in the Report which shows:

18 hospitals (30 per cent) said care had improved

19 hospitals (32 per cent) said no effect, no response or no change

23 hospitals (38 per cent) said care had deteriorated.

A further 30 hospitals did not respond to the questionnaire. As noted above, 47 were smaller rural hospitals.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

The Report in paragraph 7.27 also states that all networks and the majority of hospitals (92 per cent) claimed that staff productivity has improved and all networks claimed that clinical practices had changed to improve productivity within their network. These measures are documented by the Report in paragraphs 7.17, 7.34 and 7.35 including increased day surgery; improved rostering of staff; introduction of new catering systems; capping of medical officer fees by agreement etc.

In the question regarding further efficiencies, 41 hospitals saw barriers but 19 hospitals saw no barriers. Are these 19 hospitals the same 18 who said care has improved? Or are they within the group that says care has deteriorated? Is there a "super group" or are there major inconsistencies within the responses?

To add to the confusion of opinions, 52 hospitals (paragraph 4.58) claimed new procedures had been introduced to improve or maintain the quality of patient care.

The Report does not attempt to link questionnaire responses and study underlying groups or clusters. There are conflicting views between managers and clinicians about the impact of casemix and budget cuts on the quality of care in Victorian hospitals. Network CEOs, who manage 75 per cent of all acute care in Victoria, are of a more positive view than CEOs of smaller hospitals.

Clinicians - Mixed views

The statement that quality is not safeguarded is repeated many times throughout the Report yet the major complaints of clinicians in terms of deterioration of quality are the administrative workload; the cleanliness of hospital facilities; maintenance of equipment and buildings; access to allied health services and work demands on doctors and nurses. Without denying the legitimacy of these complaints, these are perennial sources of dissatisfaction in the hospital sector.

Against the claims made regarding deterioration, the Report does cite that significant progress in terms of quality activities has been made. Some are listed in paragraph 4.97.

The Report states that the overwhelming majority of clinicians were involved in a quality improvement program and the majority claimed these initiatives had improved or greatly improved the quality of care.

The opinion survey (paragraph 4.56) shows that for every clinician that claims standards of hospital cleanliness are low, there is one that says standards are average or high.

For every clinician who states that equipment standards are low there is one that states standards are high.

Factual errors

The Department has co-operated fully with the audit and provided almost all the data, tables and factual evidence found in the Report. Its views on most issues are also provided within the body of the Report. While the Department has attempted to correct major factual errors, there are numerous minor errors (e.g. there are 23 not 30 hospitals who report waiting lists and waiting time data centrally; Emergency Services Enhancement Program operates in 18 hospitals (19 campuses) not the 26 noted in the Report). Due to the constraints of time, minor errors have not been corrected.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Cause or effect?

The Report has not seriously tried to evaluate or audit the impact of casemix funding or link the changes in funding practice to levels to services provided.

It has made only limited attempts to quantify changes over the period; to separate different policies and environmental factors; and has circulated its methodologically flawed questionnaire during a period of industrial disputation.

Contrary to the assertion of the Report that a control group is not important, surveying a control group from a different setting or time series would be essential if valid conclusions about causality are to be drawn. This is particularly important where those opinions are to be used in evaluating policies in an environment of competing priorities and interests.

Impetus for change

During the 1980s and 1990s, trends towards reduced lengths of hospital stay were emerging internationally, brought upon by advances in diagnosis, drug therapies, medical and surgical treatments. There were, however, few incentives to minimise the times patients waited in emergency departments, waited in their hospital beds for investigation and treatment, waited for their elective surgery, and waited for discharge. This has been the concern of many State and National Governments.

One of the impetus for change in Victoria, was the Victorian Commission of Audit as recognised in the Report: "In April 1993, the Victorian Commission of Audit estimated that annual savings totalling $373 million could be achieved by raising the performance of all Victorian hospitals to the level of the most efficient in their respective peer groups through the new casemix funding system ($113 million) and benchmarking Victorian hospital performance to New South Wales levels ($260 million)".

Objectives of the health system

The objectives of reform in the health sector during 1993 and 1994 were clear and often repeated. These were:

- *to put patients or clients first rather than institutions;*
- *to ensure a fairer distribution of limited resources;*
- *to obtain value for taxpayers' funds; and*
- *to provide a better health status for all Victorians.*

The objectives were outlined as principles to guide service delivery in all health and community services and were repeated in the discussion papers, policy documents and departmental Annual Reports.

Audit is mischievous to suggest a lack of policy direction from the Department in the Executive Summary, while the body of the Report recognises such objectives in 4 separate places. These policy objectives were often stated, and the hospital sector itself does not seem to have had any problem understanding the Government's or Department's objectives.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Improving access for Victorians

The Department agrees with the audit view that "the Department's Emergency Service Performance Scheme and Elective Surgery Enhancement Program have been effective in achieving policy objectives in relation to access to emergency departments, the admission of patients from emergency departments to hospitals and the reduction in waiting list numbers for urgent and semi-urgent cases".

The Department appreciates the commendation for developing the following performance measures:

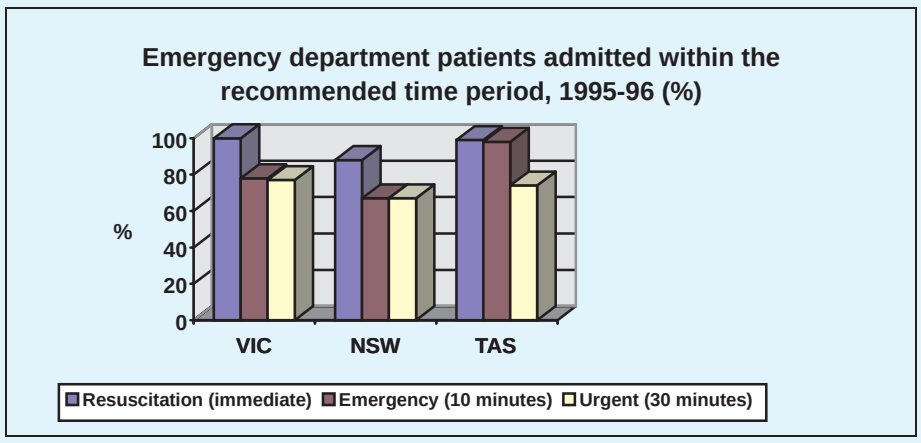
- *"waiting time benchmarks for urgent and semi-urgent categories of patients awaiting elective surgery;*
- *"limits for emergency departments in term of the length of time patients are located in the emergency departments awaiting treatment or admission to the hospital; and*
- *"the number of occasions of hospitals having to revert to ambulance bypass."*

Emergency services

The Report does give credit to the improvement of emergency services and notes that:

- *Since the introduction of the Emergency Services Enhancement Program (ESEP), all urgent patients (triage category 1) have received immediate treatment;*
- *There has also been an improvement and stabilisation in the proportions of patients in triage categories 2 & 3 who are treated within the target times of 10 and 30 minutes, respectively; and*
- *From ESEP's introduction in 1995 until June 1997 there was a significant and largely continued reduction in the number of patients waiting in excess of 12 hours from the time they presented to an emergency department to the time of their admission.*

Interstate comparisons on emergency department patients admitted within the recommended time period were presented in the 1998 Report on Government Services of the Steering Committee for the Review of Commonwealth/State Service Provision (Industry Commission) and are shown below.



❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

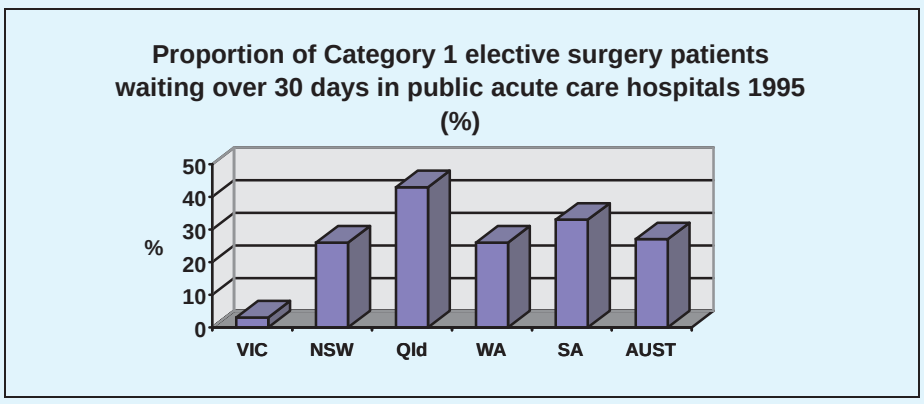
Waiting list changes

The Executive Summary passes over quickly the fact that long urgent and semi-urgent waiting lists have been reduced. The Report does report that:

- *"a reduction in urgent patients waiting longer than 30 days from 1 356 in July 1993 to 179 in July 1997;*
- *"a reduction in the numbers of semi-urgent patients waiting longer than 90 days from 11 650 in July 1993 to 7 927 in July 1997."*

It also notes that: "In October 1996, the Minister for Health commissioned a review into certain matters relating to booking lists and the recategorisation of patients on waiting lists. The findings from the review into allegations of inappropriate shifting of patients from the waiting list to the booking list found that from the 1995-96 available data, there was no evidence that hospitals were systematically and artificially transferring patients from the waiting list to the booking list in order to qualify for bonus funding".

Interstate comparisons on the proportion of category one elective surgery patients waiting over 30 days are presented in the most recent Report on Government Services of the Steering Committee for the Review of Commonwealth/State Service Provision (Industry Commission). These figures confirm that Victoria has the lowest level of urgent waiting lists of all States by a significant margin.



The Elective Surgery Information System was implemented in January 1998 and provides detailed information on patient characteristics and actual waiting times. It enables increased emphasis on quality of access, including a reduction of hospital initiated admission postponements.

The Office of the Coordinator of Emergency and Critical Care Services gathers data on the numbers of public intensive and coronary care beds available and open. Public intensive care bed numbers have fluctuated over time. In 1988-89, 72 public ICU beds were normally open in Melbourne. The average number open in April 1997 was 88.

The availability of coronary care bed numbers is regularly monitored. The Department has been actioning the recommendations of the Review of Coronary Care Services (1996).

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

The Acute Inter-hospital Transfer (AIHT) Working Party has recently been established to assist the Department with the development of the AIHT Performance Program. The main objective of this Program is to improve the care of critically ill patients through reducing the occurrence of inappropriate transfers to an agreed benchmark level. This group has been examining data related to both intensive and coronary care transfers.

Patient Satisfaction Survey

The Report downgrades the experience of patients who have received services and the results of the Patient Satisfaction Surveys. The most recent results of the Patient Satisfaction Survey, based on 9 918 patients from 92 hospitals, showed:

- *A majority of patients (90 per cent) said their waiting period for admission was acceptable, ranging from 87 per cent in the major urban hospitals to 98 per cent in smaller rural hospitals;*
- *Ninety per cent of patients reported that a doctor was almost always or usually available when needed and 95 per cent of patients said nurses were almost always or usually available when needed. In a small minority of hospitals, availability of nursing staff was perceived as a problem by 10 per cent of patients;*
- *Eighty-four per cent of patients rated compassionate, reassuring attitude of all staff either excellent or very good;*
- *Generally, comfort aspects were rated highly with 94 per cent of patients rating comfort during stay as excellent, very good or good, with the remaining 6 per cent rating it fair or poor;*
- *Most hospitals achieved high cleanliness ratings, with 82 per cent of patients rating cleanliness excellent or very good. However, some of the larger hospitals ratings in this area suggest there is room for improvement;*
- *The majority (82 per cent) of patients regarded duration of stay as about right; length of stay was perceived as too short by 11 per cent of patients and as too long by 7 per cent of patients;*
- *Ninety-two per cent of patients said they were given adequate notice of discharge but it is clear that information at discharge is a key area for improvement - 36 per cent of patients to whom this question was applicable say they were not told about possible side-effects of medicine, 21 per cent say they were not told of things that could be done to help recovery at home and 13 per cent believe they were not given sufficient information on how to cope with their condition at home or asked if they had help at home after discharge;*
- *Overall, 93 per cent of patients said they were satisfied with the amount of information received about surgery but further questions on specific issues again reveals significant scope for improvement in this area. It was reported that the surgeon did not speak to the patient prior to the operation in 15 per cent of non-emergency surgery cases, 10 per cent of non-emergency surgery cases did not receive an explanation of procedures to be undertaken or benefits associated with surgery and 22 per cent of non-emergency surgery patients were not provided with an explanation of possible pain associated with surgery.*

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

International uncertainty

Appendix A reveals that most of the audit criteria relating to quality have been met to either a moderate or large extent. Where criteria have not been met, the body of the Report acknowledges that this cannot be solely attributed to inadequacies on the part of the Department. For example, it was judged that the Department did not establish baseline performance measures for quality before the introduction of casemix. The Report notes, however, that currently throughout the world there is difficulty in establishing good quality indicators for health care. The extent to which it is reasonable to have expected the Department to achieve results in this area 5 years ago is questionable.

Quality definition

Quality of health care encompasses a number of different dimensions and is the end result of complex interactions within processes and systems of care. The term "quality care" can be used variously to refer to safety of care, level of clinical or technical competence, the dignity and humanity with which care is delivered, the environment within which care is delivered, the extent to which known effective forms of care are used, and the co-ordination of processes of care. Responsibility for delivering, measuring and improving each of these aspects of care resides at different levels within the system.

In terms of providing an independent assessment which is of value to the Department with respect to quality of care in the Victorian acute health sector, the Report therefore is disappointing in several respects:

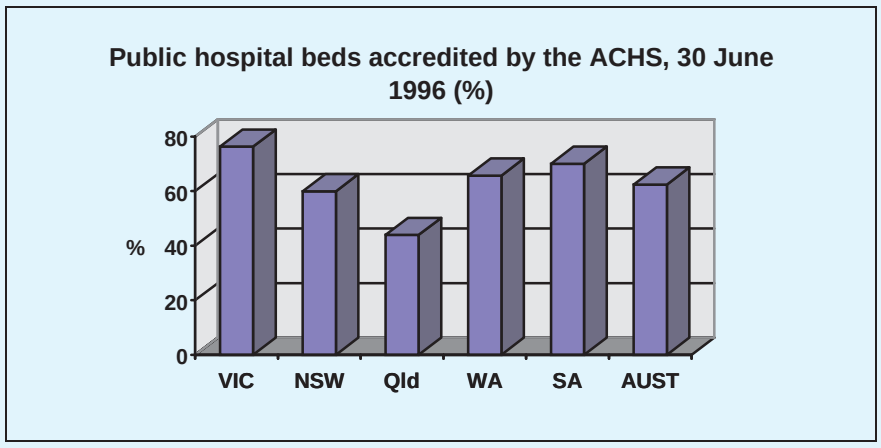
- *It presents anecdotal information on a variety of quality problems: blame for these is universally attributed to government funding levels and payment systems, or to the Department;*
- *Most of the suggestions for future strategies recommend activities which have already been undertaken by the Department or are currently being actively pursued, although this would not be apparent to the general reader. The Department appreciates the support for these strategies, particularly in areas which have met with considerable resistance and criticism from hospital managers and/or clinicians such as the need to gather and publicly report robust measures of clinical performance. The Report does not, however, give any advice on how the Department could better focus its efforts, which of the current investments in quality monitoring and promotion would give the best return, or on the relative value of the varying departmental quality initiatives;*
- *The methods used to investigate the links between casemix and quality are inadequate. The Report lacks a coherent framework for the consideration of quality. The subject is approached in a diffuse way with a lack of focus and there is no attempt to define the varying components of quality care, the factors which are important in determining provision of quality care, or the primary responsibility for the various aspects of quality and quality monitoring. There does not appear to have been any systematic review of previous work examining possible effects on quality of using a funding system based on casemix; and*
- *The Report makes little attempt to compare Victoria with other States.*

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Accreditation

The value of hospital accreditation is called into question in paragraph 4.63 of the Report ("Half of the networks and two-thirds of hospital chief executive officers were reluctant to claim that accreditation standards of the Australian Council on Health Care Standards or their equivalent adequately safeguard quality of patient care. In electing to describe accreditation as only somewhat safeguarding quality, this sentiment calls into question the value of one of the Department's major quality initiatives, i.e. for all hospitals to be accredited by the year 2000."). Only a few pages later in paragraph 4.99 hospital accreditation is listed as an example of the progress that has been achieved by networks and hospitals in relation to quality.

Accreditation of hospitals is used worldwide as one means of ensuring that hospitals monitor care processes and clinical care indicators. Victoria was the first State to introduce economic incentives to assist hospitals to achieve accreditation. Interstate comparisons on the proportion of public hospital beds accredited by the Australian Council of Health Care Standards (ACHS) in June 1996 were presented in the 1998 Report on Government Services of the Steering Committee for the Review of Commonwealth/State Service Provision (Industry Commission) and are shown below. Victoria is also the first State to announce that (as recommended by the Taskforce on Quality in Australian Health Care) participation in an accreditation process will be mandatory for all hospitals.



Colleges are involved in the development and implementation of ACHS clinical indicators as monitoring tools within relevant disciplines. ACHS Measurement of Care in Australian Hospitals provides aggregate indicator data according to State (all hospitals), for example:

Clean wound infection, Vic. 1.3%., Aust. State range 1.3 - 2.0% (1996 data)
Contaminated wound infection, Vic. 2.3%, Aust. State range 2.3 - 5.4% (1996 data)
Hospital acquired bacteraemia, Vic. 0.5%, Aust. State range 0-0.5% (1995 data).

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Other quality initiatives

Many other recommendations of the Taskforce on Quality in Australian Health Care have either been undertaken in Victoria for several years or have been recently initiated. These activities are acknowledged in the Report but little discussed:

- *Funding for Clinical Risk Management pilot projects which are trialling the use of a generic occurrence classification of adverse patient events;*
- *Funds to assist in the development of clinical specialty databases in intensive care and cardiothoracic surgery which will routinely gather information on the processes and outcomes of care;*
- *Since 1984 a Perinatal Data Collection Unit has gathered information on the processes and outcomes of care for every birth in Victoria. This information is the subject of an Annual Report to Parliament. In addition, every hospital receives an individualised hospital profile which provides comparisons in key areas for that hospital with the performance of other similar hospitals, both public and private. All maternal and neonatal deaths are reviewed by a panel of clinical experts to try to identify potentially preventable contributing factors. In 1995, the perinatal mortality rate in Victoria (perinatal mortality/1 000 births of babies 500gm or more or 22 weeks where weight unknown) was 7.7 - lower than in any other State;*
- *Similarly, anaesthetic mortality and morbidity are closely examined by a panel of clinical experts with an Annual Report to Parliament. Monitoring and investigation of surgical morbidity and mortality is about to be instituted;*
- *Improvement of the State coronial database;*
- *Substantial work undertaken by the Epidemiology Unit over the past 4 years to ascertain the extent to which routinely collected information can be used to monitor adverse events and indicators of quality of care on a Statewide basis. This work is readily available and has been published and presented in a variety of settings both nationally and internationally;*
- *An independent Health Services Commissioner was established in Victoria in 1988 to receive, investigate and resolve complaints from health service consumers, to support health care services in providing quality health care and assist them in resolving complaints;*
- *Funding for a variety of initiatives aimed at improving information availability to consumers;*
- *Support for the work of the Australasian Cochrane Centre and for systematic reviews of the effects of health care interventions;*
- *Funding for clinical epidemiology initiatives; and*
- *Incentive funds for a variety of projects aimed at improving patient safety and ensuring better co-ordination of care.*

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

The unfortunate effect of the way the Report has chosen to investigate and present this subject is that clear advice which would result in achievable gains is not provided. The Department is on the one hand criticised for its lack of quantitative analysis of care quality, on the other hand virtually all the objective information presented in the Report is work undertaken by the Department - e.g. analysis of adverse events, studies of unplanned readmission data, information relating to access to care. In some instances when measures aimed at assuring quality are supported or promoted by the Department they are criticised, yet support for the same initiative from hospital managers or clinicians is praised.

Quality and casemix

There is no general agreement about whether payment on a case basis has detrimental or positive effects on various aspects of quality. There is a substantial literature on health care quality which explores alternative hypotheses about this relationship. Most clinical and media attention is focused on possible detrimental effects - reduction in necessary tests and treatments, selective admission policies, premature discharge and incentives to shift costs. There are also, however, hypothesised positive effects - elimination of unnecessary and potentially harmful tests and treatments, greater attention to reducing unplanned variations in care, more attention to planning of care to ensure that resources are used to maximum effect.

It is clear from the internal inconsistencies and contradictions within the Report that parts of the system have responded in very different ways to the same stimulus. Hence, identical issues (such as quality of discharge planning) are quoted in the survey responses as examples both by those who believe that quality has improved and those who believe it has deteriorated since the introduction of casemix funding.

Efficiency gains

Audit's view is that while efficiency gains have been substantial, they are less than those quoted by the Department and quotes factors such as changes in measurement practices and the use of capital reserves from hospitals. The Department acknowledges that the definitions of admitted patients have improved and been standardised between hospitals and States over the period. However, the estimated improvement in productivity is a realistic estimate.

There are a range of other factors which are not included in the productivity measure, which if included, would increase the level of productivity achieved. These include additional wage and other costs, e.g. for equipment sterilisation, drugs, which were required to be incurred by hospitals but were not fully funded by Government.

Nine hospitals (15 per cent) asserted that no efficiency gains had been achieved (paragraph 7.15). The Report details no investigation of data, such as, expenditure data, staff numbers, financial position to follow-up such assertions, nor were any follow-up interviews held.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Efficiency through good management practice

In general, the productivity gains have been acknowledged. The Report cites networks' and hospitals' views that productivities have been achieved by normal good management practice. A majority of networks also contend that normal good management would reap further productivities into the future. This "normal good management practice" is detailed in Part 7 and includes:

- *All networks and 94 per cent of rural hospitals agreed that staff productivity had improved over the past 5 years (paragraph 7.27);*
- *Clinical practice change had led to improved productivity (paragraph 7.34);*
- *Four of 6 networks felt further efficiencies could be gained through service substitution (paragraph 7.46);*
- *One half of the networks and one-third of hospitals could not identify any barriers to achieving further service efficiencies (paragraph 7.69); and*
- *Where barriers to improved service efficiency were identified, they were mainly industrial factors, historic work practices, changing cultures, insufficient capital and community opposition (paragraph 7.70).*

Efficiency and quality

The view provided by the industry in Part 7 in terms of the potential for further efficiencies are inconsistent with the erosion of quality loudly asserted in other parts of the Report. This inconsistency is left to pass without comment by audit.

The presumption made in the Report that the efficiencies have affected quality is not discussed. Indeed, the conclusion is incompatible with the sector's responses that:

- *Savings were due to staff productivity and other normal good management methods;*
- *Half of the networks and one-third of the hospitals identified no barrier to further efficiencies; and*
- *The major barriers identified by other networks and hospitals were work practices and industrial factors.*

Donations

It is misleading to state that hospitals and networks, with the Inner and Eastern Network in particular being identified, are increasingly reliant on private donations to fund equipment and research. The level of donations to hospitals has been maintained over the past 3 years, but government funding still remains the overwhelming source of hospital funding. A hospital's major costs are medical, nursing, technical and ancillary staff, medical supplies maintenance and other costs. A hospital's financial position is primarily determined by its management of these large expense items in relation to its revenue, not from the level of donations which, account for only 2 per cent of networks' overall revenue.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Contradiction within Audit Office

Audit certifications that hospitals are regarded as "going concerns" and free of any material financial difficulties have been given by the statutory arm of the Auditor-General after investigation of hospital accounts and supporting documentation. The Report does not explain the reasons for the apparent inconsistency between the audit certificates issued for the 1996-97 accounts, some comments made in this Report and the Report's use of the phrase "in the past". If audit has changed its view since the signing of audit certificates for the 1996-97 accounts in September last year, when the funding and policy guidelines for 1997-98 had been released, these changes in view should be explained in detail. In addition, paragraph 7.80 of the Report recognises there has been an easing in budgetary pressure facing hospitals in 1997-98.

Change

Seeking respite from change is a common response from staff or management in any industry in the midst of change. It should be recognised that all industries face change, based on changes in technology, competition, expectations and attitudes of consumers, and the impacts of national and international economic events. Such an environment cannot be wished away, but must be responded to with institutions that are flexible and adaptable. It is commonly accepted that to ignore such an environment, and to turn one's back on micro-economic reforms will lead to lower standards of living and unsustainable financial pressures, both at the State and national level.

Further improvements

Many of the reforms listed in the Report have already been introduced by the Department. The Department is very aware and concerned to continue its program of reform started in the 1990s.

As stated in the major casemix policy document released in June 1993, the aim of reforms was to enhance and expand the excellent hospital system in Victoria. The Report provides strong support for the reforms of the past while pointing to certain areas that have been of long-standing concern to the sector. It shows that efficiencies and access to hospital services have improved. It shows in the various reports and variety of quality initiatives and mechanisms that quality has been safeguarded.

The overall support for the health system, while asserting more funding is required, is a claim that the Department must accept as a matter of opinion.

The Department supports audit's recommendations for the introduction of enhanced mechanisms to measure and subsequently improve quality of patient care. These mechanisms need to be aimed at all levels from the individual clinicians, through to hospital management, network and hospital boards and the Department centrally.

The Department accepts that aspects of the formula may be too complex for some hospital managers and will establish improved educational tools and processes. It also supports audit's comments regarding the improvement of clinical cost information for clinical and general management purposes, especially in small hospitals.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Improvements in capital planning and service planning will continue and have been strengthened. Service planning in rural areas is being undertaken within a strategic framework undertaken by the Department's Rural Health Unit. Processes have been established to link service planning into the capital development cycles, with service plans required for any significant capital works.

Casemix classification and funding has opened the debate; enabled comparisons to be made; raised questions about clinical practice and hospital administration that could not be made before. When it was a closed system, everyone could believe that the service was efficient, effective and of high quality. Comparisons can be made; problems can be seen. Attention to aspects of quality is important; shroud waving is not.

Part 2

Background

ACUTE HEALTH SERVICES DEFINED

2.1 Acute health services can be described as the treatment of a medical condition in a hospital, or more recently, in the home. Such services can be provided to inpatients of a hospital who require a Multi-Day or Same-Day length of stay or to outpatients. These services include clinical and nursing care ranging from complex and expensive cases such as liver transplants to relatively minor procedures such as the removal of varicose veins.

PUBLIC HOSPITAL FUNDING - A HISTORICAL PERSPECTIVE

2.2 Prior to the 1980s, public hospitals in Victoria were funded on a historical basis and subject to detailed input controls. In the mid-1980s, the introduction of Health Service Agreements provided hospitals with a greater degree of autonomy. The regime of detailed input controls was replaced with a system that required the expectations of hospitals to be broadly specified and funding to be provided by way of single global budgets. The Health Service Agreement process enabled hospitals to negotiate with the Government as to the services to be provided for a given budget. Hospital budgets were perceived as owned by the hospitals and any budget reductions meant that services would be reduced.

2.3 Although the output focus of Health Service Agreements was regarded as a key method to improve hospital efficiency, a review of the efficiency and effectiveness of Health Service Agreements by the former Economic and Budget Review Committee in 1992 found that *"... while Health Service Agreements may have contributed to overall efficiency gains there is little tangible evidence to indicate that they have tackled the problems of discrepancies in hospital performance ... Health Service Agreements have not achieved a significant move from historical patterns of funding"*. The Committee also found that, as Health Service Agreements did not provide an explicit link between output and funding nor reward for improving efficiency, incentives needed to be incorporated into Agreements through the phased introduction of casemix funding for inpatient services.

MAJOR GOVERNMENT REFORMS

2.4 The current Government, which came to office in 1992, was committed to a major reduction in government expenditure. It was also concerned with the large waiting lists for hospital treatments (about 5 per cent of the 30 000 patients on waiting lists were in urgent need of care). With this in mind, the objectives of the hospital reforms were to:

- introduce a fair basis for funding hospitals in the context of an overall budget reduction;
- improve the efficiency of public hospitals; and
- provide for an expansion in the number of patients treated and allow a reduction in waiting lists.

2.5 In April 1993, the Victorian Commission of Audit estimated that annual savings totalling $373 million could be achieved by raising the performance of all Victorian hospitals to the level of the most efficient in their respective peer groups through the new casemix funding system ($113 million) and benchmarking Victorian hospital performance to New South Wales levels ($260 million). The issues identified for investigation were:

- the efficiency of Victoria's public hospitals;
- their performance in comparison with interstate benchmarks; and
- opportunities for maintenance of high quality service delivery while substantially reducing budgetary costs.

2.6 The introduction of casemix funding for Victorian public hospitals from 1 July 1993 was the output funding instrument designed to restructure hospital funding in order to meet the abovementioned reform objectives for acute health services.

2.7 In August 1995, seven health care networks, which consisted of aggregations of existing metropolitan hospitals, were established. Subsequently, through amalgamations, the number of networks were reduced to 6 and recently to 5 in late 1997. The establishment of networks followed the recommendations of the Metropolitan Hospitals Planning Board. These recommendations included the need for the systematic upgrade, refurbishment and redevelopment of metropolitan public health care facilities. The role of networks is to ensure that health services are delivered in a most efficient manner, more closely aligned to community needs, through the development and relocation of services to meet increasing demand and all health services are integrated within network boundaries.

WHAT IS CASEMIX FUNDING?

2.8 The overall aim of casemix funding was to enhance and expand the hospital system in Victoria through a process that was free from centralised bureaucratic control, engendered competition and economic incentives for hospitals, and rewarded efficiency and growth in services while at the same time safeguarded quality.

2.9 In simple terms, acute hospital funding under casemix is based on the number and type of patients treated within an overall capped budget. The Victorian casemix payment system consists of a Diagnosis Related Group variable component to meet costs associated with medical and nursing, theatre and pharmaceuticals, and an overhead component which represents a notional rate that enables the Department of Human Services to set a standard unit rate for the purchase of acute health services. A Diagnosis Related Group can be defined as a group of patients with similar diagnoses who also have comparable treatment costs. In Australia, there are approximately 670 separate Diagnosis Related Groups. Various specified components of the casemix payment system also comprise teaching and research, outpatient funding, and performance and quality incentives.

2.10 Under casemix a statistical analysis is independently conducted to identify the average cost of treatment across a sample of public hospitals for each Diagnosis Related Group. Cost weights are then calculated which when applied against a standard unit payment produce the reimbursements payable per patient group. For the purpose of illustration, if the average cost of a simple appendix operation was $1 500, the average cost of a heart transplant was $30 000 and the average cost of all cases was $2 000, then appendectomies would have an cost weight of 0.75, while heart transplants would have an cost weight of 15.00. This simple principle is then extended to encompass all hospital inpatient conditions. Thus a hospital which concentrates on high technology specialties and expensive cases (such as cardiac surgery and neuro-surgery) can still be compared with a typical community hospital which undertakes a wide range of general surgery and less demanding medical cases.

2.11 Cost weights do not reflect the actual cost of delivering a service. In effect, cost weights enable decisions to be made at the metropolitan network or rural hospital level as to the mix of services to be delivered. Efficient networks or rural hospitals that can treat patients at less than the set price retain any difference between the cost of treatment and the reimbursement received. Casemix was partly intended to encourage micro-economic reform by requiring hospitals to carefully consider the range of services offered, concentrate on what they were good at and review those services which could not be offered at a competitive cost.

2.12 Under casemix, patient throughput is counted in units of output through the concept of a Weighted Inlier Equivalent Separation, known as WIES. The Inlier Equivalent Separation (IES) is a measure of activity which adjusts for those patients within a Diagnosis Related Group who are above and below the average length of stay back to the average length of stay equivalent value. WIES is calculated by multiplying the IES by the relevant Diagnosis Related Group cost weight. Patients exceeding the average length of stay threshold for a Diagnosis Related Group result in the hospital receiving a daily payment which is set at a marginal daily cost for the Diagnosis Related Group.

2.13 Hospitals are paid a set amount for each patient treated up to an agreed volume of WIES. Additional funds are also made available for extra patients treated above agreed base targets at a discounted or marginal rate of payment.

REVIEWS OF CASEMIX IN VICTORIA

2.14 Two of the key reviews undertaken in Victoria are summarised below.

Independent Assessment of Casemix Payment in Victoria by Health Solutions Pty Ltd - December 1994

2.15 The assessment, which was commissioned by the Commonwealth Government, found that the casemix funding system was extremely well devised, given the relatively short time frame available for its introduction and the public concerns actually centred around the amount of funding rather than the type of funding system.

2.16 In terms of policy implementation, the assessment established that 80 per cent of all hospital groups reported that information systems could have been better at the start and only 33 per cent of teaching hospitals and less than 10 per cent of other hospitals thought that their medical staff were appropriately trained in casemix.

2.17 The benefits of casemix that emerged from the assessment are summarised below:

- gains in hospitals' productivity;
- reductions in waiting lists and waiting times;
- strengthened focus on patient management processes including improved discharge planning; and
- better management practices such as the development of improved organisational structures.

2.18 Issues raised that were seen as requiring further discussion and policy consideration related to the following matters:

- any unintended consequences associated with increased pressure on extended care facilities or community services, reduced time available for teaching and less resources devoted to research;
- the inadequate level of support services in the non-acute hospital sector;
- coding and recording practices such as the need to define at a national level what constitutes a legitimate inpatient;
- quality of care issues in the context of customer service from a non-clinical in-hospital viewpoint;
- the future role of the country hospitals and avenues to enable these hospitals to adapt more easily to casemix;
- patients sent home when there was no available carer and the patient had not yet returned to normal mobility and health; and
- whether market forces and the commercial imperatives associated with casemix relate to the provision of services to meet community need.

2.19 One of the conclusions drawn from the assessment by Health Solutions Pty Ltd. of particular relevance was that *"Casemix funding has provided increased impetus to focus on quality, but there is a long way to go. Quality data remains weak and it is clear that the public and consumers can be more adequately informed about what is happening in the hospital, and the broader health system"*.

2.20 Separate departmental initiatives which could be seen to have met some of the above concerns expressed to the Commonwealth Government include:

- The payment of higher rates to rural hospitals for patient throughput. In relation to 1997-98, the separate payment rates for various categories of rural hospitals has been expanded to 4. These rates are all higher than the rate paid to major metropolitan teaching hospitals. Additional rural grants such as the Rural Hospital Core Specialist Grant, which is designed to assist rural hospitals in attracting specialists to country areas, were also introduced;

- The piloting of the Post-Acute Care Program in 1996-97 as a means of assisting hospitals to develop service delivery models in this area, thereby reducing pressure on extended care facilities and community services. This Program is currently under evaluation by the Department of Human Services; and
- The clarification of what constitutes an inpatient from a Victorian perspective.

2.21 A number of key issues in the report have not been fully addressed by the Department. These are:

- the need for funding linkages between acute health and other forms of non-acute care as a strategy to alleviate pressures arising from the effects of casemix in the non-acute care area;
- the impact of casemix and the level of acute health funding on teaching and research has not been assessed nor has the effectiveness of the Training and Development Grants provided to networks and hospitals;
- the lack of availability of carers for patients after discharge continues to remain an issue, particularly for rural areas; and
- greater attention to be given to improving the quality of non-clinical care areas in the context of customer service.

2.22 A number of suggestions to address some of the above unresolved issues are contained later in this Report.

Reforms in Government Service Provision - Case studies: Public hospitals in Victoria

2.23 In February 1997 a steering committee, established for the review of Commonwealth/ State service provision, presented a series of case studies, one of which covered output-based funding of public acute hospital care in Victoria. The findings arising from the review, which was commissioned by the Council of Australian Governments, were produced to assist jurisdictions to learn from each other.

2.24 The review concluded that, while casemix funding strengthens incentives for hospitals to be efficient by increasing pressures to constrain costs, it also creates incentives to reduce the quantity or quality of those outputs which are not well specified. The review suggested that *"... there may be greater incentives to:*

- *focus on less costly patients or more financially rewarding cases (thus reducing access);*
- *discharge patients earlier (thus shifting costs to other parts of the medical system and to individuals and their families); or*
- *reduce the effort devoted to less well specified hospital activities (such as research or outpatients)".*

2.25 A major implementation issue is how to prevent or minimise these unintended side-effects of the funding mechanism.

2.26 Other issues canvassed related to:

- extending the definition of the output in terms of hospital-based care to an episode of care which would include other health care services in the casemix funding mechanism;
- moving towards a greater emphasis on outcome-based funding; and
- including capital costs in the casemix funding formula.

WHAT IS THE FRAMEWORK FOR THE PROVISION OF ACUTE AND POST-ACUTE SERVICES?

2.27 At the time of the audit, the framework for the provision of acute and post-acute services is shown in Chart 2A.

CHART 2A
PROVISION OF ACUTE AND POST-ACUTE HEALTH SERVICES

Purchaser	*Providers of acute health services*	*Providers of post-acute services*
Department of Human Services - Acute Health Division 14 departmental regions (metropolitan and country)	6 metropolitan health care networks 72 non-metropolitan hospitals 4 multi-purpose service centres Some services are outsourced to the private sector by the above public sector providers	78 municipalities (home care) District nursing services Hospital in the Home Program General practitioners 79 community health centres Aged care providers Post-Acute Care Program

2.28 The Department of Human Services' role has historically been one of the funder of services. More recently it has adopted the role of "purchaser" of services through the Health Service Agreement process. As can be seen from the above chart, the present Government has adopted a policy which separates the purchaser of government services from the provider of these services as a means of clarifying the nature of services to be delivered, introduces greater contestability between providers and promotes greater private sector involvement in service delivery.

2.29 Under the purchaser/provider model, the purchaser is required to specify policy parameters, outputs, price and quality standards, and to monitor the performance of providers. The providers on the other hand focus on the delivery of outputs within parameters set by the purchaser.

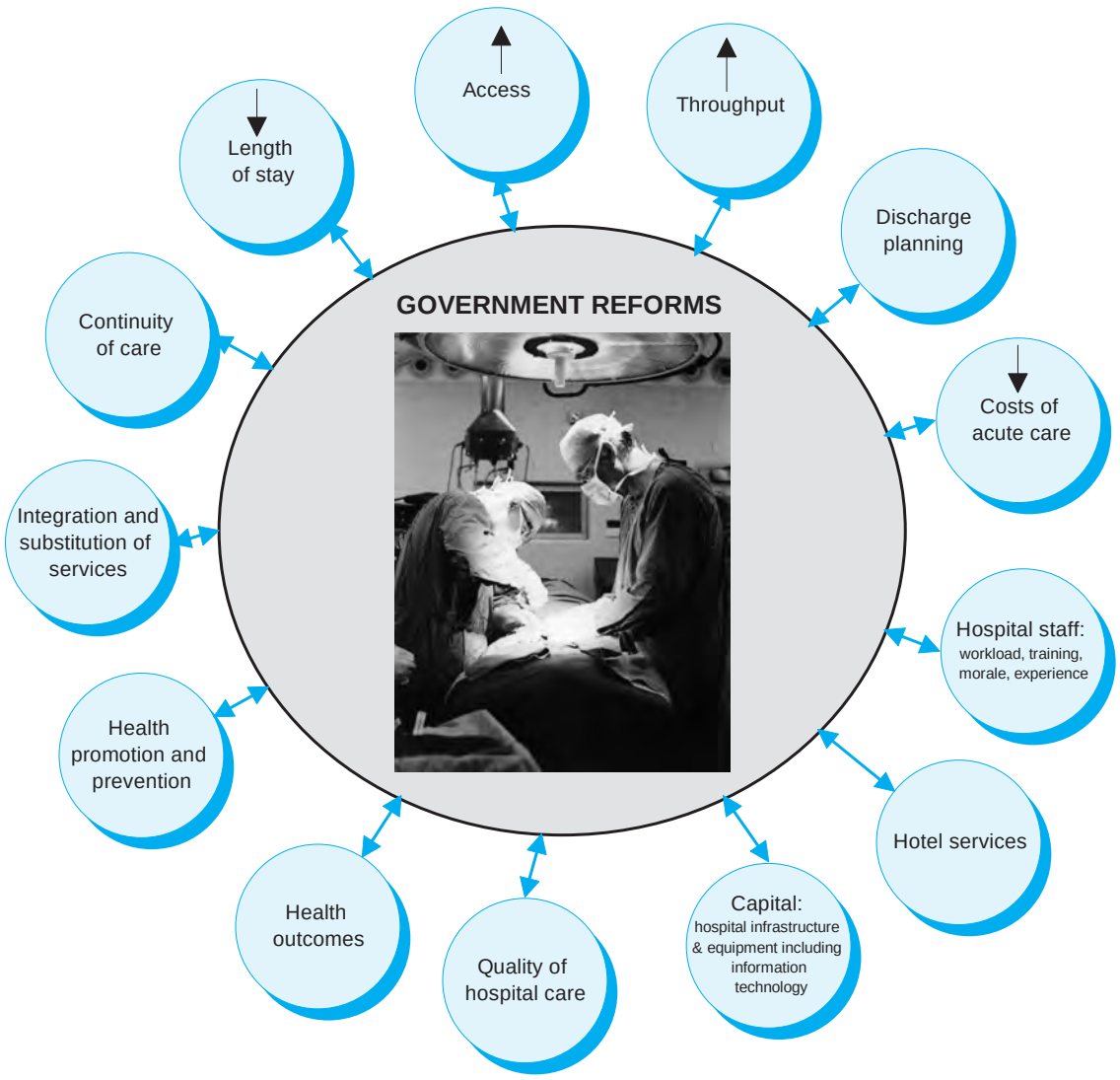
2.30 In applying this model to the provision of acute health services, the Department through its Acute Health Division is the Statewide purchaser of acute health services. The departmental regions provide some input into acute health purchasing decisions from a local perspective. The major providers of acute health services are hospitals. Networks fulfil the role of not only managing a group of providers but undertaking a more detailed purchasing role within their network boundaries. As such, the Department does not directly manage acute hospitals. Networks and hospitals are independent statutory corporations with boards of management appointed by Governor-in-Council on the advice of the Minister for Health. Network and hospital boards are the employers of all staff and are responsible for all aspects of the provision of care, and management of their staff and services.

2.31 Networks and hospitals are also the predominant providers of Mental Health and Aged Care services. These are separately funded by the Aged, Community and Mental Health Program of the Department. Neither mental health nor aged care funding is based on casemix.

2.32 In the above framework, the Acute Health Program of the Department manages outlays of around $2.5 billion per annum of which approximately 70 per cent goes to inpatient casemix and the remaining 30 per cent to other funding streams. In all, networks and hospitals receive around 70 per cent of their funding from the Acute Program and 30 per cent from the Aged, Community and Mental Health Program. Networks and hospitals may also receive direct Commonwealth funding and have a variety of arrangements in place relating to medical private practice clinics. Some also have co-located private hospitals.

2.33 A diagrammatic presentation of various factors connected with the impact of government reform in the delivery of acute health services is shown in Chart 2B.

CHART 2B
FACTORS ASSOCIATED WITH GOVERNMENT REFORMS IN ACUTE HEALTH



(Photo in chart reproduced with the permission of the Mildura Base Hospital).

COMMONWEALTH / STATE FUNDING ARRANGEMENTS FOR ACUTE HEALTH

2.34 The responsibility for the funding of public hospital services is shared between the Commonwealth and State governments. The Commonwealth provides funding to State governments in the form of specific-purpose grants for the provision of public hospital services (currently via the Medicare Agreement which is a bilateral agreement between Commonwealth and individual States). These specific purpose payments together with State funds are used by State governments to fund public hospitals for the provision of admitted and non-admitted patient services including acute services. The Commonwealth also operates universal benefits schemes for private medical services (also often referred to as the Medical Benefits Scheme) and for pharmaceuticals (Pharmaceutical Benefits Scheme).

2.35 The bilateral Medicare Agreements (soon to be replaced by Healthcare Agreements) provide for all eligible persons to obtain admitted and non-admitted patient care including medical care at public hospitals without charge. Patients who elect to be treated as private patients in a public or private hospital, pay for their medical costs but receive a rebate under the Medical Benefits Scheme. Funding of public hospitals is capped and decisions on the allocation of funds in made by State governments. Funding of private medical and pharmaceutical services operates on a fee for service basis without any limit, and decisions on how much is spent on private medical and pharmaceutical services are made by medical practitioners with regard to patient needs.

Part 3

Conduct of the audit

AUDIT OBJECTIVES

3.1 The overall objective of the audit was to assess whether certain aspects of acute health services funded under casemix have been managed by the Department of Human Services, health care networks and public hospitals in an effective manner. In particular, the audit was aimed at examining whether:

- the Government's anticipated casemix objectives have been achieved under the casemix model and whether casemix funding has contributed to any positive or undesirable consequences;
- the Department established a baseline of acute health service performance criteria (quality, accessibility, cost) against which post-casemix assessment could be made;
- the casemix formula is sufficiently flexible to respond to changing priorities and, in accordance with the policies of the Government, provides fair and equitable access to acute hospital services;
- the impact of casemix funding on the overall financial viability of hospitals is consistent with government policy regarding location and accessibility of acute health services;
- adequate mechanisms are in place within the Department to guard against any risk of hospitals manipulating throughput and waiting list data in order to attract bonuses or avoid penalties under casemix;
- appropriate controls are applied by the senior management of hospitals to protect the integrity of data on which funding is based;
- clinical costing systems have been established to enhance management reporting and monitoring of costs associated with clinical services;
- the quality of acute care provided to various groups of patients has been safeguarded;
- suitable procedures have been developed to assess and monitor health outcomes;
- any evaluative studies have been undertaken to assess the indirect impact of casemix funding and budget cuts, if any, on programs or service providers in the non-hospital sector and non-direct patient care activities of hospitals; and
- further initiatives can be introduced within the context of the casemix funding system to improve the implementation of casemix throughout the relevant public hospitals in Victoria.

AUDIT SCOPE

3.2 While the audit predominantly examined casemix related issues, it was not possible to examine casemix in isolation given the complexity of issues in the health field and the interrelationships between issues. In this regard, it was necessary to consider other factors separate from casemix that impacted on the audit findings such as reductions in hospital budgets.

3.3 The broad areas covered included:

- quality of care;
- health outcomes;
- equity of access to hospital services;
- efficiency gains;
- the casemix formula; and
- secondary impacts of casemix funding on non-hospital services and on non-direct patient care activities.

3.4 Where considered appropriate, the audit covered an analysis of trends in broad statistical, utilisation and quality data relating to hospital performance pre- and post-casemix on a Statewide basis.

AUDIT QUESTIONNAIRES

3.5 Given the above audit scope, in order to arrive at a Statewide perspective of the management of acute health services, a survey approach of senior managers was adopted as it would have been impractical to physically observe practices and conditions in all hospitals across the State in view of the limited resources available to my Office.

3.6 A detailed questionnaire was issued to the Chief Executive Officer of all health care networks and public hospitals as well as the Department of Human Services. A structured interview approach was also used at the Department, 15 public hospitals (14 hospitals located in country locations and one major metropolitan hospital) and the 6 health care networks to supplement the information received from the questionnaires (while at the time of the audit 6 health care networks were in operation, the Western and the North-Eastern networks have since amalgamated except for the Austin and Repatriation Medical Centre). Additional follow-up examination of outstanding issues that arose from interviews or audit analysis occurred where considered warranted.

3.7 A Statewide market survey of senior doctors, nurses and allied health professionals was separately commissioned by audit to examine perceptions relating to quality of care. The sample selected consisted of 28 large metropolitan and non-metropolitan hospitals as well as 2 small country-based hospitals which covered approximately 85 per cent of the State's throughput. Audit obtained prior approval from the Chief Executive Officer of each hospital for hospital employees to participate in the audit survey. Some of the questions were also included in the survey of network and hospital Chief Executive Officers, as well as the questionnaire issued to the Department.

3.8 A summary of responses to the above mentioned surveys is outlined in Table 3A.

TABLE 3A
QUESTIONNAIRE RESPONSE RATE

	Chief Executive Officers			*Quality of care*			
	Networks	*Public hospitals*	*Total*	*Senior doctors*	*Charge nurses*	*Allied health professionals*	*Total*
Responded	6	*(a)* 60	66	266	305	154	725
Non-response		30	30	142	158	93	393
Total sent	6	90	96	408	463	247	1 118
Response rate (%)	100	67		65	66	62	65

(*a*) 47 responses related to the smaller hospitals located in rural regions.

3.9 A profile of the respondents to the quality of care survey is outlined in Table 3B.

TABLE 3B
PROFILE OF RESPONDENTS, QUALITY OF CARE IN HOSPITALS

Senior doctors - heads of 33 different types of clinical departments which ranged from highly specialised departments such as Plastic Surgery, Gynaecology and Cardiology to more generalised departments such as General Medicine and General Surgery.
Charge nurses in various fields and Directors of Nursing, Assistant Directors of Nursing and Managers of Nursing.
Allied health professionals - heads of 19 different types of units such as Rehabilitation, Physiotherapy and Social Work.

3.10 Around 8 out of every 10 respondents were from metropolitan hospitals. A similar proportion of senior doctors and charge nurses had worked in the Victorian public hospital system for over 10 years (6 out of every 10 allied health professionals were in this category).

3.11 Non-respondents comprised:

- health care professionals recently employed by the public hospital sector who felt they had insufficient experience to comment; and
- health care professionals who, for whatever reason, elected not to respond to the questionnaire.

3.12 In analysing the results of the audit surveys, it needs to be recognised that:

- while the network and hospital-related survey was focused at the Chief Executive Officer level, there are numerous hospital managers who have not been included in the survey process; and
- even though Chief Executive Officers are in the minority when compared with the number of clinicians surveyed, their views, especially those from networks, are particularly relevant given their wide ranging management role in acute health which should not be undervalued.

3.13 The surveys were conducted in conjunction with Quadrant Research Services (Vic) Pty Ltd (in relation to Chief Executive Officers of health care networks and public hospitals) and AC Nielsen (in relation to senior doctors, nurses and allied health professionals with respect to quality of care). These specialist market research firms were engaged by audit to provide technical advice in relation to:

- sample size and selection;
- questionnaire implementation;
- analysis and interpretation of responses;
- ensuring that the questionnaires were free from bias; and
- enabling the surveys to be conducted in a professional manner and produce results which can be regarded as representative of all hospital Chief Executive Officers and senior doctors, nurses and allied health professionals.

3.14 The market research firms also conducted a follow-up process to ensure the response rate achieved was sufficient to sustain valid conclusions and to measure the impact of any non-response bias. The findings presented throughout this Report, which are based on the survey results, are therefore expressed on a public hospital sector-wide basis.

Response bias and confidence levels

Public hospitals and networks

3.15 In relation to public hospitals, in order to evaluate non-response bias the market research firm used the last 15 questionnaires received, 12 of which had been prompted by follow-up calls. The results from these late responses were compared with those from the remainder of the sample and very few significant differences were found. To be precise, however, the market research firm advised that there could be unknown non-response bias outstanding.

3.16 In taking these matters into account, the market research firm advised that for perspective, in relation to a yes/no question, results based on a random sample of 60 Chief Executive Officers can be expected with 95 per cent confidence to yield results to within $\pm$ 7 per cent of the figure based on the total of 90 Chief Executive Officers.

3.17 With regard to networks, as the survey covered all networks, the market research firm advised that network Chief Executive Officers' views are comprehensively reflected.

Senior doctors, charge nurses and allied health professionals

3.18 Specialist comments provided to audit in relation to the survey parameters are set out below:

3.19 A total of 1 118 questionnaires were sent to a sample of senior doctors (408), charge nurses (463) and allied health professionals (247).

3.20 The resultant response rates were 65 per cent overall (725 responses), 65 per cent for senior doctors (266 responses), 66 per cent for charge nurses (305 responses) and 62 per cent for allied health professionals (154 responses).

3.21 Since only a proportion (a sample) of each population was surveyed, and not the entire population, sampling error is calculated to show the extent to which achieved results might differ from the true value, i.e. if a response was to be achieved from every member of the target population.

3.22 The measurement of sampling error is known as the standard error, which is used to determine the range of values interval likely to contain the true value that corresponds to the survey estimate (confidence interval).

3.23 For the overall achieved sample of 725 responses, the maximum margin of error is 2.2 per cent. This means that, for example, if a response of 50 per cent is returned for any particular question in the survey, then the confidence interval is between 48 per cent to 52 per cent. Consequently, we can be 95 per cent confident that the true value lies between 48 per cent and 52 per cent.

3.24 For the achieved sample of 266 responses from senior doctors, the maximum margin of error is 4 per cent; for the achieved sample of 305 responses from charge nurses, the maximum margin of error is 3.3 per cent; and for the achieved sample of 154 responses from allied health professionals, the maximum margin of error is 4 per cent.

3.25 Audit was assured from the market research firm that based on the response rate, any impact of non-response bias is allowed for in the maximum margin of error of 2.2 per cent.

Verbatim responses

3.26 As part of the survey process, respondents were requested to provide overall comments they felt necessary in relation to strategies to safeguard and/or improve quality of acute care in public hospitals, or further initiatives to improve casemix or the delivery of acute health services. Where considered appropriate, some of the more common themes and particular views expressed are contained in Parts 4 and 11 of this Report.

3.27 Audit was advised by its market research specialists that it is important to point out to readers of the Report that the presentation of verbatim responses in the form of selective quotes has no statistical validity to support any conclusions reached by audit. A selection of verbatim responses is only provided for the purpose of illumination or, in other words, to give the reader an indication of some issues that were presented by respondents to explain their overall opinion or perception expressed by way of a summarised response such as "yes" or "no" or "improved" or "deteriorated".

3.28 The wide scope of the audit and time constraints meant that it was not practical for audit to conduct sufficient inquiries to be satisfied that the anecdotes could be elevated from perceptions to fact. As such, audit neither agrees nor disagrees with the content of the quotes identified throughout the Report.

3.29 Where considered necessary, audit attempted to corroborate the emerging issues identified from the qualitative research through the examination of relevant quantitative indicators of performance. In those cases where valid quantitative data was not available, the audit findings are based on opinions and attitudes of respondents to the surveys.

3.30 In addition, audit sought to identify any initiatives or examples of best practice introduced by the Department, health care networks and individual hospitals, and any enhancements that could be introduced to further improve the casemix funding system.

Use of control groups

3.31 In the context of undertaking surveys in Victoria it is recognised that, where circumstances permit, the use of surveying a control group in another jurisdiction that possesses identical characteristics except for the key experimental variables can be built into the survey process.

3.32 The purpose of a control group is to provide added assurance to the survey findings from the prime research in a particular population designated for investigation. If the findings from the control group are different from the main targeted group, then greater confidence can be placed on findings that have emerged in the targeted population. Conversely, if the findings are similar, there is a risk that the prime findings may not be valid as other factors, such as those in the control group, may also need to be considered.

3.33 In applying this process to the audit, some may consider that a control group from another State should have been used, for example, to assist in assessing the impact of various factors and the consequent effect on quality of patient care in Victoria's public hospitals.

3.34 The use of a control group was not applied to the survey process undertaken as part of the audit process as:

- the Auditor-General's powers of access do not extend to other States; and
- it would have been exceedingly difficult to identify a true control group that did not experience the same variables to Victoria in terms of micro-economic reform such as reductions in hospital budgets.

LIST OF SPECIALISTS USED

3.35 In conducting the audit, specialist advice was sought by engaging the services of a wide range of technical experts who are disclosed in Chart 3C:

CHART 3C
SPECIALIST ADVICE SOUGHT BY AUDIT

Specialist	*Audit planning*	*Audit surveys*	*Audit fieldwork*	*Parliamentary reporting*
Professor Brian McCaughan - *former member of the Australian Casemix Clinical Committee*	*(a)*			
Associate Professor Debbie Picone - *Executive Director, The New South Wales College of Nursing and former member of the Australian Casemix Clinical Committee*	*(a)*			
Mr John Pilla - *Associate Director, National Health Care Services, KPMG Management Consulting Pty Ltd*	*(b)*	*(b)*	*(b)*	*(b)*
Mr Brian Collopy, *Clinical Director - Australian Council on Health Care Standards Care Evaluation Program*		*(c)*		
Associate Professor David Dunt - *Director, Program Evaluation Unit, Centre for Health Program Evaluation*		*(d)*		*(d)*
Dr Phillip McCloud - *Director of Statistical Consulting, Department of Mathematics, Monash University*		*(e)*		
Mr Frank Maas - *Director of AC Nielsen*		*(f)*		
Mr Roger Crowther - *Partner, Quadrant Research Services*		*(g)*		
Mr William Kricker - *former Chief Executive of the Alfred Group of Hospitals*				*(h)*

(*a*) Audit planning.

(*b*) Ongoing advice extending over all phases of the audit.

(*c*) Content of quality of care survey - senior doctors.

(*d*) Analysis of quality of care questionnaire design and specialist advice on selected aspects of the Report.

(*e*) Questionnaire design - quality of care surveys and network and hospital Chief Executive Officers surveys ensuring that questionnaires were free from bias.

(*f*) Implementation of quality of care surveys.

(*g*) Implementation of survey of network and hospital Chief Executive Officers

(*h*) Advice regarding the content of the Parliamentary Report.

3.36 Attempts to obtain additional independent specialist advice on the content of the draft parliamentary Report were unsuccessful as the experts approached declined the offer on the basis that their association with the Report could jeopardise further work-related opportunities with the Victorian Government.

3.37 Apart from the extensive deliberations that took place with the senior management of the Department of Human Services, health care networks (all Chief Executive Officers interviewed) and hospitals (15 Chief Executive Officers interviewed), discussions were also held with the following individuals or groups:

- Professor Stephen Duckett, Professor of Health Policy, Dean of Faculty of Health Sciences, La Trobe University and the architect of Victoria's casemix reforms;
- Professor Peter Phelan, Professor of Paediatrics, University of Melbourne and a member of the Australian Casemix Clinical Committee;
- Ms Mary Draper, Convenor, Health Issues Centre;
- Mr Onno van der Wel, Manager, Casemix and Clinical Costing Unit, South Australian Health Commission;
- Ms Susan Garner, Assistant Director, Case Payment Section, Classification and Payments Branch, Commonwealth Department of Health and Family Services;
- Ms Vivienne McCutcheon, Acting Health Services Commissioner for Victoria, Office of the Health Services Commissioner;
- Ms Joanne Booth, former Program Manager, Australian Council on Healthcare Standards Care Evaluation Program; and
- Dr Robyn Mason, Executive Director, Australian Medical Association, (Victorian Branch).

Advertisement seeking public comments

3.38 An advertisement was also placed in the press inviting comments from the public concerning 7 broad topics connected with the audit. Eleven formal submissions were received through this process. The inclusion of various submissions in the Report does not necessarily imply audit's endorsement to all of the matters contained therein, but are included to demonstrate the variety of views received which could further debate. Audit has placed the most emphasis on those issues that have demonstrated a recurring theme or where views accord with audit's analysis.

Views sought from the non-hospital sector

3.39 In addition, all councils and community health centres or services and the Royal District Nursing Service were formally given the opportunity to provide comment in relation to any impact that the Government's acute health reforms have had on service delivery. Responses received from 18 (23 per cent) councils and 5 (6 per cent) community health centres or services have been used as a basis for material contained in paragraphs 9.39 to 9.41 of this Report.

Interpretation of information reported by way of audit surveys

3.40 Due to the extensive number of options given to respondents for completing the audit questionnaires, space constraints in the Report meant that, for presentation purposes, answers such as "no effect," "no response" or in some cases "not applicable" have not been included separately in the summaries of responses contained in the Report. This information has been aggregated and included in a column titled "Other".

3.41 To assist in interpreting the information reported from the audit surveys, the term "government reforms" refers to casemix funding and micro-economic reforms. The term "micro-economic reform" signifies reforms such as the requirement for improved efficiencies to be achieved through subsequent productivity savings and the substantial reductions in hospital budgets that took place in 1992-93 and 1993-94.

3.42 In developing the audit objectives and scope, the technical difficulties in separating the individual effects of casemix implementation and general micro-economic reform on health care delivery were acknowledged. **I wish to acknowledge the contributions made by those individuals or groups that provided input to the issues connected with the audit.**

COMPLIANCE WITH AUDITING STANDARDS

3.43 The audit was performed in accordance with Australian Auditing Standards applicable to performance audits and accordingly included such tests and other procedures considered necessary in the circumstances.

3.44 In accordance with the Standards for performance auditing, general high level criteria were established by audit in order to assess the performance of the industry. The audit criteria were provided to the Department of Human Services in February 1997. The results of the assessment against the general high level criteria are contained in Appendix A to this Report.

Part 4

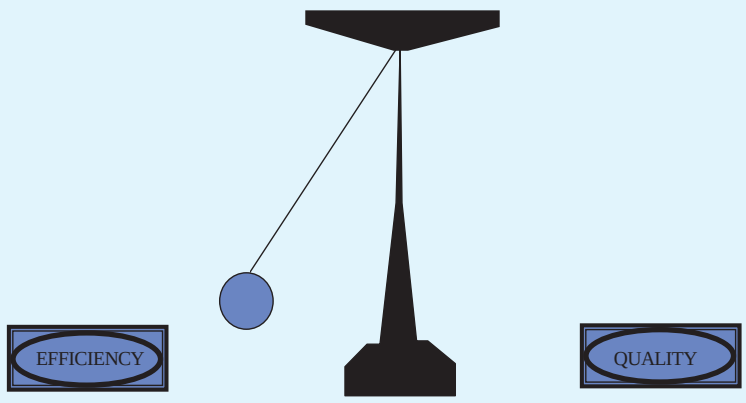
Quality of care

OVERVIEW

4.1 The overall conclusion reached by audit is that, while there have been improvements to some aspects of quality of care such as discharge planning, the body of professional evidence based on responses from senior clinicians and, to a lesser extent, hospital administrators, indicated that there has been an overall decline in quality of care. However, the extent of the deterioration and the degree to which this was influenced by casemix or micro-economic reforms, such as acute health budget reductions, is unclear and cannot be substantiated.

4.2 In the past, comments have been made in various quarters on the importance of my Office identifying major risks before they occur. Based on the weight of opinion sought from authoritative sources primarily through the surveys, there is prima facie evidence to suggest that the Government's funding reforms in the acute health sector have contributed to a situation whereby the overall quality of certain aspects of care provided to patients by the public hospital system is at risk.

4.3 It is audit's view that, due to the heavy emphasis on efficiency gains to be derived from the Government's casemix and budgetary reforms, the Government is now faced with the issue, based on the opinions of the acute health industry, of having to improve the quality of care provided through its public hospital system within a finite health budget. The Government needs to strike a balance between efficiency and quality.



4.4 Despite a range of quality strategies developed by the Department of Human Services as the funder of acute health services, the quality benefits realised or potentially available from these measures have not been universally accepted at this point in time by those involved in service provision.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

It is notable that where quality data exists to enable cross State comparisons of processes and outcomes of care, there is no evidence to support assertions that quality of care in Victorian hospitals is worse than that provided in other States.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Improving safety and quality of care is a central concern of the Department. It is actively seeking to ensure that there are tangible incentives to ensure that health services are focused on consumers and that provision of safe, high quality care is a priority for all who work in the system. However all who work in the system have a responsibility for the standard of their own practice and share the responsibility for ensuring that there are appropriate quality assurance, monitoring and accountability systems. The Department acknowledges that there is room for improvement in quality assurance and monitoring-this is true of all health systems. The Audit Report currently shows no appreciation of the differing responsibilities of all who work in the system.

WHAT IS "QUALITY OF CARE"?

4.5 Quality of care relates to the quality of services provided by the service provider which is usually the public hospital in the case of acute health care. As such, quality of care is separate from the issue of health outcomes (refer to Part 5 of this Report). Health outcomes relate to the health status of the individual rather than the quality of the care delivered. It is therefore possible to provide a patient with a high standard of care that results in poor health outcomes and vice versa.

4.6 Quality of care has been defined by the Department to embrace not only excellence of care but access to care. In audit's development of the questionnaire to network and hospital Chief Executive Officers, senior doctors, charge nurses and senior allied health professionals, a distinction was drawn between the quality of clinical care (i.e. the process of patient care and/or outcome of care) and the quality of supportive care, such as cleaning and catering services, based on advice provided to audit by an expert in the development of health care standards.

QUALITY OF CARE SURVEY

Audit methodology

4.7 Audit was advised by the Department that, while many of the questions in the audit questionnaire may be appropriate to hospitals and clinicians, the Department is not in a position to comment on much of the detail due to its unique role as funder and purchaser of acute health services. As such, departmental responses were not provided to many aspects of the questionnaire. As one of the original objectives of casemix was to safeguard quality of care and, in view of the Department's stance in not prioritising any of the objectives, audit assumed that an equal weighting was envisaged for all objectives. On the basis that the Department has a major role in implementing casemix funding, audit rejects the Department's contention that, because of its unique role as funder and purchaser of acute health services, it is not in a position to comment on issues of quality of care in relation to the acute health services it purchases from networks and hospitals.

4.8 In the opinion of the Department, the length and superficial nature of the questionnaire limited its ability to provide useful and considered responses to many of the questions, a number of which it saw as vague and ambiguous. In addition, as many of the qualitative questions were in the Department's view clearly open to interpretation, such as the definition of "restful atmosphere", "service substitution", "work demands on doctors" and "work demands on nurses", it did not consider that it was appropriate to respond to questions of this nature. A number of other questions were considered by the Department to be based on incorrect assumptions or as technically incorrect. The Department also brought to audit's notice the existence of a large body of literature on potential survey biases, particularly from workers and managers in industries in the midst of micro-economic reform, and that there are methods to minimise such biases. Copies of the audit questionnaires used in the survey process may be obtained from the Corporate Communications Section of the Victorian Auditor-General's Office. Contact details are listed at the end of this Report.

4.9 Despite the reservations expressed by the Department, audit relied on specialist input in relation to both the design and content of the questionnaires. This advice came from a range of sources such as leading market research firms, experts within the health care industry and, on the suggestion of the Department, an expert in questionnaire design from the Mathematics Department of one of the major universities.

4.10 One of the audit objectives was to examine whether the Department established a baseline of acute health service performance criteria (e.g. in terms of quality) against which a post-casemix assessment could be made. Such information was regarded by audit as a prerequisite to examining whether quality of care has been effectively safeguarded, particularly since any impact of casemix would more than likely be compounded by the simultaneous reductions that were made by the Government to hospital budgets. In other words, it would be essential to be aware of the standard of quality immediately preceding the reforms in mid-1993 and then measure any subsequent changes. Whether any deterioration in quality of care has resulted in quality of an unacceptable standard, would be the ultimate indicator as to whether quality has been effectively safeguarded.

4.11 Audit concurs with the following view expressed by a senior doctor:

> *"The absence of adequate and consistent Statewide data prior to the introduction of casemix precludes, to any meaningful extent, the rational analysis of the effect on quality of care".*

4.12 The lack of baseline data as at 30 June 1993 and the absence of universally accepted benchmarks to assess quality at any given point of time meant that it was not possible for audit to substantiate, by use of objective performance data, whether or not quality of care had changed. Even if these benchmarks were in place, it would be exceedingly difficult to associate the findings in absolute terms to the government reforms due to the multitude of other factors that impinge on quality of care and patient outcomes.

4.13 Audit's attempts to examine objective performance data were also hampered by the absence of reliable indicators of quality of care since the introduction of casemix. For example, the use of infection rates as a measure of quality has become less relevant as an indicator due to the declining length of stay of patients in hospital, resulting in the potential for any infections acquired during the hospital stay to be disclosed only after the patient's discharge from the hospital. In these circumstances, the infection rate would not be known to the hospital unless the condition required readmission to the same hospital. In relation to the Department's other major quality of care indicator, i.e. hospital unplanned readmission rates, comments later in this Part of the Report cast considerable doubt on the reliability of this measure.

4.14 Since it is now more than 5 years since the Government introduced major reforms into the acute health sector, audit chose to place considerable reliance on confidential comments provided by the Chief Executive Officers of the individual organisations (networks and hospitals) as well as the qualitative opinions and perceptions of the most senior doctors (heads of clinical departments), nurses (charge nurses) and allied health professionals (heads of units) employed in the public hospital system. Most of the senior doctors and charge nurses had worked in the Victorian public hospital system for over 10 years. It was pleasing to find that a high proportion of Chief Executive Officers indicated that changes in patient care have been properly monitored in their organisations. These individuals represent the collective body who have been assigned the responsibility to implement the reforms and manage the day-to-day delivery of acute health services at the hospital level.

4.15 In audit opinion, these are the very people who represent the core institutional memories of the public hospital industry and as such it was deemed important, in the pursuit of public good, that they be given the opportunity to contribute their views on issues relating to quality of care. This approach was confirmed by one of the specialists engaged by audit.

4.16 In view of the above circumstances, the audit elected to concentrate on eliciting opinions and perceptions relating to the many factors that may have been influenced by government reforms and the impact of such factors on quality of care. Other broad opinions were sought by audit regarding the standard of care provided and the overall impact of reform on quality.

4.17 Eliciting opinions and perceptions of patients through the Department's methodology involving the extensive use of patient satisfaction surveys needs to be complemented with a wide range of other measures to reach informed conclusions regarding quality of care and related issues. Further, to obtain greater value in the use of patient satisfaction surveys, the Department should consider extending such surveys to encompass patients awaiting care on a pilot basis.

4.18 In an environment where it is clear that an equilibrium has to be found between efficiency and quality, audit was overwhelmed by the interest shown by an obviously dedicated group of hospital executives and health practitioners. A major component of this Part of the Report has accordingly been devoted to conveying some of the more important messages outlined by way of verbatim responses to the audit questionnaire. Due to the large volume of responses provided to audit, it was not possible to include many of the responses in the Report.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

It is extremely disappointing and surprising that the Audit Report expresses a lack of interest in, and disregard for, the judgments of patients on the quality of care they receive. The view that clinicians and managers are the most competent people to judge health care quality is widely entrenched in the health care system but is no longer a view generally shared by the community, researchers or experts in quality.

What did the result of the audit survey reveal?

4.19 In the context of interpreting the results of the audit survey, audit considers the safeguarding of quality of care to be of paramount of importance. In audit opinion, it cannot be disputed that standards should be maintained as high as practically possible when they relate to issues surrounding patient care in hospitals. In analysing the survey results it also needs to be recognised that, in terms of the professional judgements provided by senior doctors, nurses and allied health professionals, these individuals have been drawn from hospitals which cover 85 per cent of the State's patient throughput.

4.20 The opinions expressed by Chief Executive Officers covered their hospital only, and senior clinicians their unique clinical department. The views of senior clinicians relate to their specific circumstances rather than representing a generalised view either on their hospital or across all hospitals.

4.21 Because the overwhelming views of the respondents disclosed a number of disturbing results, audit concentrated on these aspects as they provided the best opportunity to focus on areas that posed the greatest risk to patient care even though, in some cases, positive or neutral responses outweighed negative responses. Audit considers that many of these views will require closer scrutiny by the Department.

4.22 For the purpose of analysing the significance or otherwise of the results of the survey, audit chose to equate the concept of an alleged deterioration in quality of care with the assumption that there would then be a risk that quality had not been safeguarded.

4.23 The findings of a disturbing nature are listed below:

- 38 per cent of hospital Chief Executive Officers consider that the overall effect of the government reforms on the quality of care in their hospital has been a deterioration in quality of care;

- two-thirds of senior doctors, charge nurses and senior allied health professionals maintain that the overall effect of the government reforms on the quality of clinical care and supportive care provided by their professions has been a deterioration in the quality of care;
- in general terms, around two-thirds of senior doctors, charge nurses and senior allied health professionals, considered that the following factors, influenced by government reforms, contributed to a deterioration in the quality of hospital care:
  - work demands on nurses;
  - work demands on doctors;
  - cleanliness of hospital facilities and the number of cleaning staff;
  - administrative workload;
  - maintenance of equipment;
  - maintenance of hospital buildings; and
  - patient access to allied health services;
- one-third of senior clinicians consider that patient access to critical care services and elective surgery have contributed to a deterioration in quality of care in their hospitals, while in terms of patient access to emergency services, one-quarter of clinicians claimed a deterioration in care;
- generally speaking, around one-quarter of senior doctors, charge nurses and senior allied health professionals, and in some cases higher proportions, rated the standard of the following categories of services, in the context of the quality of supportive care in their hospitals, as low:
  - counselling services for patients;
  - hospital cleanliness (between 40 and 50 per cent);
  - interpreter services (approximately 40 per cent);
  - physical environment;
  - privacy of patients; and
  - standard of equipment;
- 40 per cent of hospital Chief Executive Officers disagree that the quality of care has been effectively safeguarded in their hospitals;
- 37 per cent of hospital Chief Executive Officers feel that the quality of patient care has fallen to some extent in their hospitals since 1 July 1993;
- nearly half of senior doctors and 3 out of every 10 charge nurses and senior allied health professionals disagreed that current procedures in their hospitals effectively safeguarded the quality of clinical care;
- slightly more than half of senior doctors and 4 out of every 10 charge nurses and senior allied health professionals disagreed that current procedures in their hospitals effectively safeguard the quality of supportive care;
- 58 per cent of hospital Chief Executive Officers claim that the goal of efficiency has directly competed with the provision of quality of care;

- around 8 out of every 10 senior doctors, charge nurses and senior allied health professionals indicated that the goal of financial efficiency has directly competed with quality of clinical and supportive care;
- around 4 out of every 10 senior doctors, charge nurses and senior allied health professionals stated that since 1 July 1993 the quality of inpatient services provided to the chronically ill, the aged and to socio-economically disadvantaged groups had worsened in the hospitals in which they had worked;
- around one-quarter of senior doctors and charge nurses and 17 per cent of senior allied health professionals claimed that, allowing for the increased level of throughput since 1 July 1993, the extent of adverse events had increased;
- half of senior doctors hold the view that reduced lengths of stays since 1 July 1993 have had a negative effect on health outcomes in terms of quality of patient care;
- in the opinion of one-third of senior doctors, shorter post-operative recovery periods since 1 July 1993 have had a negative effect on health outcomes in terms of the quality of patient care;
- 57 per cent of senior doctors and nearly half the charge nurses and senior allied health professionals do not believe that any risks associated with early discharge have been adequately safeguarded by initiatives to improve home nursing care;
- one-third of senior doctors and senior allied health professionals and one-quarter of charge nurses feel that, given the changes that have occurred under casemix, the links between their hospitals and community support services have been weakened since 1 July 1993;
- 43 per cent of senior doctors feel that a shortage of doctors for rural hospitals has impacted on the level of access to acute hospital services in rural Victoria;
- around 8 out of every 10 senior doctors, charge nurses and senior allied health professionals feel that:
  - staff resource levels since 1 July 1993 have impacted on the quality of patient care; and
  - the government reforms have, overall, resulted in an increased workload for those who work in their profession in their respective hospitals;
- the main factors leading to around three-quarters of senior doctors, charge nurses and senior allied health professionals feeling that there has been a deterioration in the quality of care since 1 July 1993 due to various work place issues posed by audit relate to:
  - an increase in the level of work place stress; and
  - a decline in staff morale;
- in the vicinity of 6 out of every 10 senior doctors, charge nurses and senior allied health professionals held the view that changes in patient care have not been properly measured and monitored in terms of quality of clinical care and supportive care (this view is not supported by the majority of network and hospital Chief Executive Officers);

- 5 network Chief Executive Officers and approximately 8 out of every 10 senior doctors, charge nurses and senior allied health professionals acknowledged that some hospitals cut corners on non-clinical aspects of quality; and
- nearly half the hospital Chief Executive Officers and around 8 out of every 10 senior doctors, charge nurses and senior allied health professionals disagreed that casemix had achieved its primary objectives of improving hospital productivity and equity of funding without any observable reduction in quality.

4.24 In relation to the above matters, it was not possible in the majority of cases for the most senior personnel from within the Victorian public hospital system to attribute the change in quality of care to a particular government reform. In general terms, of those who considered that an undesirable trend had occurred, between 30 and 50 per cent were able to clearly nominate the introduction of casemix and/or micro-economic reform as influencing factors.

4.25 Due to the particular significance and complexity of issues relating to quality of patient care, audit engaged the services of a specialist to examine this Part of the Report in detail. Comments provided by the specialist are set out below.

Expert commentary on audit methodology and survey findings

4.26 The expert advised that "audit is correct in arguing, in the absence of objective data, that clinical and administrative managers are in the best position to comment authoritatively on the effects of the introduction of casemix. Their views are particularly persuasive in those situations where the professional judgement of administrative and clinical managers are in broad agreement. However, this cannot always be assumed to occur. This Part of the Report highlights that the views of administrative managers are much less unfavourable than those of clinical managers.

"The breadth and depth of negative perceptions (compared with positive perceptions) by the clinical managers about the impacts of casemix and associated micro-economic reforms on the quality of public hospital care are compelling. The administrative managers (i.e. networks and hospital Chief Executive Officers) support the core perceptions of the clinical managers albeit to a lesser extent. While audit has included a summary of key findings of a disturbing nature, it could also have included the following factors where the level of negative perceptions by clinical managers was much higher than the level of positive perceptions:

- availability of linen services;
- cancellation of elective surgery;
- emergency waiting times;
- inter-hospital transfers;
- infection control;
- time on trolleys;
- access to interpreters and health promotion;
- patient severity;
- patient safety;

- privacy;
- service substitutions; and
- unplanned readmissions.

"In the near absence of objective data, the breadth and depth of these negative perceptions would seem to establish a prima facie case for concluding that casemix and the associated micro-economic reform has had a negative impact on quality. This requires urgent consideration by the Government as well as the introduction of better data systems in order that future impacts can be detected more expeditiously and with less controversy.

"In drawing the above conclusions, the following qualifications must be stated at the outset:

- various documents have not been sighted, such as those relating to other parts of the audit and print-outs of data analysis dealing with managers' quality of care survey returns;
- a number of conceptual and methodological considerations that relate to a lack of objective data and the absence of a control group, for example:
  - lack of such data both at baseline and at the time of audit that would normally form the basis of a comprehensive assessment of the full range of casemix changes;
  - no baseline measure for quality of care, as perceived by the administrative and clinical managers in the audit survey;
- the extent to which any difference in impacts can be attributed to casemix, or the micro-economic reforms with which it was associated in its introduction in Victoria or to other contemporaneous events (this point is noted in the Report in regard to the objective measures of the impact of casemix);
- in terms of context, it could be said that there is a "culture of complaint" in large publicly-funded organisations such as public hospitals, particularly as these organisations and their staffs experience the effects of micro-economic reform and downsizing;
- it is common place for clinical staff and their managers not to share the organisational goals of network and hospital managers, and clinical staff are likely to distrust these managers and hold their level of administrative skills in low regard; and
- quality assurance in the acute health care sector is not well advanced in Australia and lags well behind the United States of America, as it has only been in recent times that there has been an enthusiastic response from hospitals for their conduct (it is probable that quality assurance programs were seen as either another form of external and unwelcome governmental interference and/or a threat to professional autonomy and independence).

"The Department of Human Services' move to monitor unplanned readmissions, patient satisfaction and access through waiting list data, as well as its more recent initiatives, described in the Report can be seen in 2 different ways. First, that it falls well short of a comprehensive monitoring of quality in hospitals. Second, that it represents good progress toward an eventual end. In my opinion, the survey of managers' views are certainly more useful to audit than the patients' views. Results of patient satisfaction surveys internationally have proved disappointing. Patients for reasons upon which one can only speculate, seem reluctant to share their experiences and perceptions of hospital care in mail or interviewer-administered questionnaires (*Locker & Dunt, Theoretical and methodological issues in sociological studies of consumer satisfaction with medical care*, Social Science Medicine, 12: 283-92, 1978). Results indicating very high levels of patient satisfaction are the near universal outcome of patient satisfaction surveys. As such, they do not distinguish well between good and bad hospital care.

"It is interesting that clinical managers report adverse effects of casemix on unplanned readmissions rate while the Department's data on readmissions record low rates during the casemix period. The reasons for this are various, but do alert to differences in results from the objective and subjective data, and the conclusions that might be reached using one rather than the other".

APPROACH TO SAFEGUARDING QUALITY OF CARE

Department of Human Services

4.27 The Department's major priority, certainly in the first 3 years after the introduction of casemix, was heavily focused on increasing throughput at more efficient prices. Performance-related incentives designed to improve quality through greater access to services concentrated on financial incentives for additional throughput, such as the Emergency Service Performance Scheme and the Elective Surgery Enhancement Program rather than rewarding hospitals for excellence of care.

4.28 The Department's initial strategy, as a purchaser of health services, was to rely heavily upon the professionalism and training of clinical and nursing staff to maintain appropriate standards of care, supplemented in part by funding in the casemix formula for Australian Council on Healthcare Standards accreditation by hospitals.

4.29 While additional separate initiatives were introduced, such as the establishment of the Acute Health Quality Committee, the Infection Control Task Force in 1996-97 and a program to develop and evaluate clinical risk management in hospitals, it is audit's view, supported by specialist advice, that the Department's capacity to monitor the clinical quality of the services it was purchasing was limited as:

- key indicators of clinical quality such as readmission rates were either unreliable, misleading or inaccurate; and
- in addition to doubts as to the methodological approach of the Patient Satisfaction Survey (discussed later in this Part of the Report), a patient survey can only address supportive care issues rather than standards of clinical care.

4.30 There has been considerable priority given in 1997-98 by the Department to the development of a key set of quality of care indicators. In this regard, the Department established a new position titled *Manager, Acute Hospital Quality.* One of the major priorities of this position is to establish appropriate quality of care indicators. The fact that this appointment occurred some 4 years after casemix commenced reflects, in audit's opinion, the lack of attention given to this area until recently.

4.31 A discussion paper titled *Acute Health Performance Indicators: Strategy for Victoria* was released in October 1997 by the Department following a commitment by the Acute Health Quality Committee to develop a suite of performance indicators for implementation and use within the Victorian acute health care sector. The paper reviews the current status of, and proposes a framework for, indicator development.

4.32 In this regard the Department stated that "reliable indicators of clinical care quality can be gathered. In some specialties, systems for obtaining and reporting clinical indicators and outcomes of care have been in operation for many years, predating casemix and well before the recent involvement of clinical colleges [there are many colleges that operate in Victoria such as The Royal Australasian College of Surgeons] in the development and implementation of Australian Council on Healthcare Standards' clinical indicators. However clinicians have not been willing to allow external examination of this data or release of the information outside of their specialty, particularly if release would enable identification of specific facilities or individual doctors."

Hospitals

4.33 The 1990s saw Australian industries in general devote considerable attention to the quality of operations and in this regard public hospitals also increased their focus in this area. The drive towards quality improvement was facilitated by the accreditation activities under the auspices of the Australian Council on Healthcare Standards where there has been a steady and substantial increase in the number of accredited hospitals over the past 5 years.

4.34 As outlined in both audit interviews and questionnaires, the major metropolitan teaching hospitals in particular have devoted additional resources to establish a quality infrastructure, such as the creation of quality co-ordinators and manager positions, and quality improvement committees which are designed to improve and safeguard quality of care. There is evidence of considerable attention given to the development of clinical pathways and protocols and the reporting and follow-up of clinical indicators.

4.35 Audit interviews with a large number of Chief Executive Officers of rural hospitals revealed the level of resources devoted to quality-related procedures, particularly in the smaller hospitals, were not needed to the same extent as in metropolitan hospitals, due to the lower volume and complexity of clinical cases.

4.36 In addition to the industry's response outlined above to safeguarding quality, a substantial element of the audit involved a comprehensive survey of the views of the Department, network and hospital management, and senior clinicians relating to quality of care issues. The detailed responses to the audit surveys, together with audit analysis and submissions received from interested parties, are presented in the following pages under the headings listed below:

- Overall effect of reforms on quality of patient care
- Overall effect of reforms on quality of clinical care
- Overall effect of reforms on quality of supportive care
- Impact of factors influenced by reforms on quality of care
- Standard of supportive care
- Do hospital procedures effectively safeguard quality of care?
- Do accreditation standards safeguard quality of patient care?
- Extent of accreditation of hospitals
- Has the goal of efficiency competed directly quality?
- Achievement of productivity gains, equity of funding and quality
- Cutting corners on non-clinical aspects of quality
- Quality of services provided to certain vulnerable groups
- Adverse events and incidents
- Quality improvement/assurance activities
- Changes in clinical processes and effect on health outcomes
- Capacity of professional bodies to influence quality of care
- Continuity of care
- Supply of doctors in rural hospitals
- Resourcing and workload issues
- Monitoring and evaluation
- Factors which have had an impact on quality of care

OVERALL EFFECT OF REFORMS ON QUALITY OF PATIENT CARE

Overall audit comment

4.37 In eliciting the views of the senior management of the acute health industry on the impact of specific factors, influenced by government reform, on quality of care, results were far more positive from network and hospital Chief Executive Officers to those of senior clinicians. The Department should examine the overall unsatisfactory trends in quality of care portrayed by the vast majority of the most senior clinicians in its public hospital system.

4.38 The Department did not provide a response on the effect of reform on quality of care, while unlike senior clinicians, the majority of hospital Chief Executive Officers (in many cases between 40 per cent and 80 per cent) did not consider that the factors earmarked by audit had any affect on the quality of care in their hospital.

4.39 Without attempting to differentiate between clinical and supportive care, hospital Chief Executive Officers were not as unified as network Chief Executive Officers on the overall effect of the government reforms on the quality of patient care in their respective organisations. In fact, more hospital Chief Executive Officers (23) felt there had been a deterioration than those who claimed an improvement in quality of patient care (18). Of the 23 hospital Chief Executive Officers who claimed a deterioration in quality of patient care:

- 10 held the view that casemix was an influencing factor; and
- one was in charge of a large metropolitan teaching hospital, 3 related to large metropolitan hospitals, one was connected with a large suburban hospital and 5 were located in large rural hospitals.

Views of networks and hospitals

What has been the overall effect of the government reforms on the quality of patient care in your organisation?

	Total respondents			*Improved/Deteriorated*							
				Influenced by both casemix and micro-economic reforms		*Influenced by casemix funding only*		*Influenced by micro-economic reform only*		*Cannot separate effects*	
	Improved	*Deteriorated*	*Other (a)*	*Imp*	*Det*	*Imp*	*Det*	*Imp*	*Det*	*Imp*	*Det*
Networks (since 1 August 1995)	4 (67%)		2 (33%)							4	
Hospitals (since 1 July 1993)	18 (30%)	23 (38%)	19 (32%)	4	8	1	2	2	1	11	12

(a) "Other" comprises either "No effect", "No response" or "Don't know".

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

OVERALL EFFECT OF REFORMS ON QUALITY OF CLINICAL CARE

Overall audit comment

4.40 Around two-thirds of senior clinicians are of the view that the government reforms have contributed to a deterioration in the quality of clinical care in their respective hospitals, i.e. the technical processes involved in delivering clinical care or the outcomes of care (within the hospital). These clinicians felt that this deterioration was mainly due to increased economic pressures caused by the drive for shorter lengths of patient stay in hospitals and increased throughput, a higher proportion of beds occupied by seriously ill patients and staff reductions. While the majority of respondents could not separate the effects of casemix and micro-economic reform, in broad terms slightly more than one-quarter claimed that the deterioration was influenced by both reforms.

4.41 Particular factors seen by clinicians to have contributed to a deterioration in the quality of clinical care are listed below:

- the inappropriate early discharge relative, in some cases, to the patient's condition (e.g. the elderly suffering from multiple illnesses) does not enable a sufficient length of hospital stay;
- the preference to targeting admissions towards cases with greater cost weightings reduces access to those patients suffering from illnesses which attract a lower casemix payment for the hospital;
- the placement of surgical patients in obstetric wards increases the risk of patients not receiving the most appropriate care from nurses who have specialised in midwifery;
- the non-segregation on some occasions of male and female patients, and the old and the young, leads to a loss of dignity and privacy;
- pre and post-operative management is compromised by the lack of time available to discuss issues with patients;
- a patient's condition may not be fully evaluated due to the pressure for rapid patient turnover and the use of inexperienced staff;
- patient care is affected by the inadequate standard of equipment; and
- an increase in clinical incidents or adverse events (i.e. complications or unintended injuries caused by health care management).

4.42 In aggregate terms, 10 per cent of clinicians responding to the audit survey expressed the view that quality of clinical care had improved as a consequence of the reforms introduced by the Government. Comments provided to audit included the following:

- clinical care systems had been streamlined and standardised; and
- shorter hospital stays for patients have improved pre-admission assessment and discharge planning which have led to a focus on outcomes and better co-ordination between hospital and after-care services.

Views of clinicians

What has been the overall effect of the government reforms on the quality of clinical care (i.e. the process of patient care and/or outcome of care)?

	Total respondents			*Improved/Deteriorated*							
				Influenced by both casemix and micro-economic reforms		*Influenced by casemix funding only*		*Influenced by micro-economic reform only*		*Cannot separate effects*	
	Improved	*Deteriorated*	*Other (a)*	*Imp*	*Det*	*Imp*	*Det*	*Imp*	*Det*	*Imp*	*Det*
Senior doctors	15 (6%)	185 (70%)	66 (24%)	3	59	5	5	1	18	6	103
Charge nurses	45 (15%)	205 (67%)	55 (18%)	16	54	3	5	2	15	24	131
Allied health professionals	12 (8%)	97 (63%)	45 (29%)	2	31	2	4		8	8	54

(a) "Other" comprises either "No effect", "No response" or "Don't know".

4.43 Some of the comments provided to audit by senior doctors, charge nurses and allied health professionals to explain their opinion are listed below:

Improvements

Senior doctors

- Quality of care has improved but this is determined by the standards of medical practice and not casemix funding. Casemix funding has created some difficulties in maintaining standards of care, but care provided is determined by the quality of the medical and nursing staff rather than funding.
- Casemix has improved the variation in practice that used to occur. Doctors are generally more aware what is accepted practice than they used to be.
- The need to shorten hospital stays has led to major efforts to improve pre-admission assessment and investigation. This has resulted in fewer multi day stays in hospitals prior to surgery, and has resulted in a major reduction in cancellations of surgery for medical reasons. The quality of pre-operative care has improved.

Charge nurses

- The standard of nursing care has been monitored with some improvement due to process analysis and the revision of nursing standards and practice. Considerable effort was required to maintain the quality and quantity of the nursing staff. Nursing teams have now made the staffing more stable.
- Nurses have had to assess their work (which never happened in the past). There has been a need to audit every facet to look for ways to improve the processes. Nurses have had to respond to the patients' and families' needs, not necessarily theirs, i.e. provide a customer service or one which is excellent.
- Casemix has brought clinical pathways into use. These make you focus on outcomes - therefore measuring outcomes ensures taking action to provide quality care. We have developed a pathway that is used by the hospital and the Royal District Nursing Service. This ensures continuity of care and achievement of outcomes.
- Quality of clinical care has improved due to introduction of managed care plans which were implemented to increase efficiencies and reduce length of stay.
- I believe that a constrained funding model has helped focus and improved some patient care provisions which would have otherwise remained unchanged (and unchallenged) in other circumstances.
- There have been improvements in discharge planning. The increased development of quality assurance programs has led to an improvement in the quality of clinical care provided by nurses.
- Better understanding of the need to have a co-ordinated approach.
- Casemix promoted new models of care and specific services development and improvements such as hospital in the home.
- Improved admission and discharge processes and the engagement of a multi-disciplinary team to manage discharge planning have improved quality of care.

- The introduction of continuity of care models has seen benefits to patient care to back-up the patient throughout their health needs which enable improved health outcomes.

Allied health professionals

- More incentive to move forward with streamlining and improved communication strategies such as care plans (specific and general) from medical and nursing which assists allied health management.
- More selective in regard to accepting patients for therapy. Greater emphasis on evaluating benefits of therapy, i.e ongoing therapy. Introduction of objective outcome measures.

Deterioration

Senior doctors

- Disadvantages include inappropriate early discharges and admission pressures to admit patients with clinical conditions that attract a higher payment under casemix which leads to patient disadvantage.
- When hospitals are paid according to the amount and category of work done, monetary issues may take priority in decision-making over clinical issues, e.g. timing of discharge.
- I have witnessed patients being falsely (quasi) categorised to ensure that the best financial outcome is achieved. In addition, at some executive meetings, prioritisation was directed towards the most financially beneficial clinical services. These measures have the capacity to corrupt the best community clinical outcome.
- Throughput and keeping within budget are the goals. Outcomes and quality do not rate a mention unless they are so bad as to generate complaint.
- Male and female, old and young patients are inappropriately mixed up in wards, leading to loss of dignity and privacy.
- Funding cuts especially affect access for our elderly patients with multiple co-morbidity who have longer lengths of stay.
- As a generalisation, it is no longer possible to individualise a patient's care.
- The emphasis is on cost, not care. I spend much more time on administration than on operating.
- Rapid patient turnover leads to complex problems not being fully evaluated and investigated, especially problems with older patients with multi-system disorders. Cost cutting pressures in my department have led to shortcuts and reduced staffing, leaving overworked and demoralised staff prone to errors and accidents.
- The process of earlier discharge in our speciality means patients are now discharged with a higher risk of bleeding or infection. While there is an attempt to monitor such patients on a day patient basis, the window of observation is very narrow.
- There is pressure to allow junior (trainee) staff to work with less supervision in order to increase numbers.

- Our unplanned readmission rate has increased. Patients' complaints, particularly in outpatients, have increased. Patients' anxiety about being forced out early and how they will cope have increased.
- Teaching, research, patient comfort, rehabilitation and integration into the community are not adequately encompassed. Victoria is the only place in the world that funds cancer on a casemix basis.
- Diagnoses are more superficial and diagnostic assistance has been less.
- Same day admission of patients for major surgery prevents appropriate clinical assessment which is unsafe.
- Far greater emphasis on same day and short stay surgery means the resident staff know nothing about the patient as a person and very little about the pathology. Responsibility is shifted to the general practitioner, pre-admission assessment and nurse substitution for assistance in theatre and hospital in the home programs.

Charge nurses

- Cutbacks have led to a decrease in nurse/client ratios which often border on unsafe situations. Yes, health services needed cutbacks but the pendulum has swung too far.
- Some obstetric beds are used for surgical patients. As midwives generally do not have up to date skills to care for surgical patients, this situation is risky and unfair to those patients. As a consequence, midwives spend less time with their obstetric patients.
- As there are more patients with serious illness in the general wards, these patients require more intensive nursing. High turnover and shorter stays of patients have led to a deterioration of care given during a patient's stay in hospital. When both of these factors are in one ward, staff have very high stress and workload which must influence patient outcomes.
- Casemix funding operates within a time frame. Whether the patient is fully better or not does not determine whether he or she can be left in hospital. It is essential to have proper diagnosis at the time of admission to plan for discharge.
- No allowance has been made for the increased complexity of patient illnesses. In fact, nursing numbers have been reduced (micro-economic reforms) so sicker patients are now being cared for by fewer and less experienced nurses.
- Nursing staff consequently are continually working in top gear with acute patients who now are no longer allowed to convalesce in hospitals.
- Little scope is provided for the care of clients who do not respond as expected to treatments or interventions indicated for their particular conditions. This has meant a reduction in the provision of services not central to the treatment of a condition, but which previously contributed to a patient's care as part of a range of minor but important adjuncts.
- In the effort to reduce length of stay, medical decisions are made to discharge patients at short or no notice. There is a lack of planning, discussion and consultation with the nursing and allied health team and, more importantly, the patient. Once patients are considered medically well, they are discharged without regard to their ability to cope in the community.

- It has become more like a business than a hospital with a caring attitude. Patients do not come as a diagnosis but rather a dollar sign. There is no such thing as patients staying that extra day if not feeling well as it is drummed into us that it will cost too much.
- Casemix funding, increased throughput and constantly evaluating figures have caused nurses to change direction and look at financial outcomes, not clinical outcomes.
- I believe there has been an increase in incidents, i.e. drug errors and other clinical incidents as increased throughput has increased workloads and nursing staff are trying to achieve more in less time.
- Different agency nurses are not able to provide continuous care.
- There are too many anomalies in how children and adolescents respond to illness and hospitalisation, which takes time and different approaches to help families adopt to the health problems, that are not provided for in the patient classification system.
- Micro-economic reforms have caused shedding of senior experienced staff (i.e. more costly staff) leaving reduced numbers of less experienced (cheaper) staff in charge of full wards of sicker patients. Overall staffing numbers have been reduced.
- Senior ward nurses have left and new graduates make up the ward workforce. This is a dangerous situation especially since supports such as nurse educators have also been removed.
- Widespread multi-skilling of staff has led to a decrease in number of specialised nursing staff.
- Privatisation of support services has led to a deterioration in level of service.
- Some obstetric beds are used for surgical patients. As midwives do not have recent surgical skills, this situation is risky and unfair to surgical patients. In addition, midwives spend less time with obstetric patients.

Allied health professionals

- Where allied health services were formerly provided during the inpatient episode and followed-up by the same clinician on an outpatient basis, casemix funding has led to more of a focus on the medical or surgical care of the patient rather than a holistic approach.
- Reduced lengths of stay have meant that our clinical role has been largely confined to assessment and discharge planning.
- Decreased patient stay necessitates much quicker referral to allied health professionals during admission and this does not always happen. Secondly, there are less days available for patient assessment and education so sessions have to be combined with a reduction in quality of services.
- Reduction in allied health staffing levels together with increased patient throughput initially resulted in increased efficiency. But as the need for services has continued to increase, many patients do not receive a comprehensive (or even adequate in some cases) service.

- Increased throughput and decreased length of stays have meant that it is often difficult to provide meaningful therapy and ensure support in place for discharge.
- Due to a decreased length of stay, many patients may be discharged before all allied health intervention have occurred.
- Staff cuts reduced our ability to respond quickly and appropriately.
- Allied health, particularly social work outcomes, have been poorly articulated by casemix and, therefore, not well funded.
- With increased throughput and no increase in staff, workloads have increased with less time spent with each patient. The overall effect on quality of work has deteriorated.
- Micro-economic reforms have substantially reduced patient access to allied health services.
- Patients can often be discharged before completion of allied intervention.
- There has been a significant increase in the re-use of single-use items.

OVERALL EFFECT OF REFORMS ON QUALITY OF SUPPORTIVE CARE

Overall audit comment

4.44 As in the case with clinical care, around two-thirds of senior clinicians consider that the government reforms have contributed to a deterioration of supportive care in their respective hospitals (e.g. communication and information provided to patients and hospital cleanliness). A summary of the more common issues put forward to support a deterioration in supportive care is outlined below:

- an unsatisfactory level of cleaning in non-patient areas and to a lesser extent in wards;
- there has been a deterioration in the quality of patient food;
- the hospital has become less personalised with less quality time spent with patients and relatives;
- rapid patient turn-over has led to poor discharge planning and poor community follow-ups;
- the reduction in staff has reduced the time available to communicate with patients;
- the pressure on throughput has meant that hospitals have generally given less consideration to patients' social and emotional needs; and
- there is insufficient staff to co-ordinate patient care or provide for continuity of care.

4.45 Overall, 11 per cent of clinicians indicated that quality of supportive care had improved as a consequence of government reform. Comments provided to audit are summarised below:

- there has been a significant improvement in discharge planning and with the introduction of managed care plans, patient information and communication has improved; and

- the review of processes has resulted in the redevelopment of more suitable processes such as pre-admission clinics, post-acute care co-ordination and pre-operative units for elective patients.

4.46 In identifying the impact that casemix and/or micro-economic reforms have had on the change in supportive care, approximately half the respondents could not separate the effects. In terms of deterioration in supportive care, around a third viewed both reforms as influencing factors.

Views of clinicians

Since 1 July 1993, what has been the overall effect of the government reforms on the quality of supportive care (e.g. communication to patients, information provided to patients, cleanliness of hospitals):

	Total respondents			Improved/Deteriorated							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Improved	Deteriorated	Other (a)	Imp	Det	Imp	Det	Imp	Det	Imp	Det
Senior doctors	22 (8%)	194 (73%)	50 (19%)	3	70	5	6		17	14	101
Charge nurses	47 (15%)	204 (67%)	54 (18%)	15	61	5	4	2	11	25	128
Allied health professionals	13 (8%)	104 (68%)	37 (24%)	3	31	2	3	3	13	5	57

(a) "Other" comprises either "No effect", "No response", "Don't know" or "Not applicable".

4.47 Some of the comments provided to audit by senior doctors, charge nurses and allied health professionals to explain their opinion are listed below:

Improvements

Senior doctors

- There has been a significant improvement in discharge planning with improved patient information and communication.
- The basic problem is obviously having less money. It is the amount that casemix dispenses, not casemix itself that is a problem.

Charge nurses

- By reviewing the process we can identify deficiencies in information and communication and improve in these areas. There has been a change in focus to make the patients and families the customers. Thus, giving feedback to these customers is vital to meet their needs.
- Casemix funding has meant many hospitals have introduced managed care plans which ensure improved communications and information to patients.

- Due to casemix impact, hospitals have been productive in reviewing and redeveloping more suitable processes, e.g. pre-admission clinics, post-acute care coordination and pre-operative units for elective patients. Elective patients are now admitted via pre-admission clinics where a full and uninterrupted explanation is provided. On the day of surgery the patient returns to the pre-operative unit and is further supported prior to surgery.
- Competition with other hospitals has meant that we have to communicate better with patients and provide them with more information. Patients are more assertive generally and question more. Casemix has altered the way public hospitals view themselves. They now operate more as a business.
- There has been marked improvement in information provided to patients. A business philosophy has been adopted emphasising that we are in a competitive market and need to sell our services to survive. In doing this communication has improved.

Allied health professionals

- There is a greater emphasis on patient involvement in their management and understanding of problems. There has also been an emphasis on pre-admission data given to patients.
- With the introduction of casemix funding the development of care plans, processes and communication to patients and families is now done in a more co-ordinated manner.
- These initiatives require patient/team/unit partnership to achieve desired outcomes.

Deterioration

Senior doctors

- Some of the areas of the hospital are cleaned on an irregular basis, e.g. corridors, lifts and offices. Information to patients is now much more rushed. We try to avoid getting in a situation where the patient asks questions.
- The main problem is in the cleanliness of wards. There is also a problem of deteriorating surgical equipment and no funding for replacement results in increased risks.
- Hospitals are cleaned most effectively prior to audit, but otherwise they are left in a dangerous state in terms of hygiene.
- The hospital is dusty while the floors show evidence of dried spilt liquids. There has been a significant deterioration in quality of patient food.
- Our hospital is repeatedly filthy including corridors, stairs and walls. There is a lack of polishing and vacuuming. The removal of cleaning apparatus and sterilisation staff resulted in a major infection outbreak.
- Many contract employees do not go the extra mile and only do the minimum.
- Time spent with patients individually is diminished. More time is spent finding the most profitable service under casemix.

- Casemix funding encourages cutting corners, taking greater risks and reducing time-based activities such as education and explanation. It is an insidious side effect of the work place pressure.
- Same day admissions do not allow communication with patients by the doctor undertaking procedures.
- Patients are rushed through without continuity of management. The hospital has become less personal, more mechanical and less patient-focused.
- Casemix funding does not recognise any differences in patient socio-economic status (e.g. need for interpreter services and special needs).

Charge nurses

- Because the inpatients have high physical demands, the available nursing is struggling to meet all of these physical demands, let alone find time to meet their emotional, psychological and educational needs.
- The standard of cleaning has deteriorated. Only basic duties are performed, e.g. cleaning of floors and damp dusting weekly. Cleaning duties are unable to achieve the best results due to increased workload and decreased staffing numbers.
- Hospital toilets are cleaned every other day. Floors are not mopped daily.
- My department has not been cleaned for 5 days.
- Soiled carpets and dusting are not up to past standard.
- Often contractors not aware of safety issues, e.g. open tins of paint left in public areas and floors are unclean.
- Pre-admission service has resulted in improvement to communication and information provided to patients.
- Stairways, lifts and some waiting areas are not cleaned at weekends as they used to be, due to staff cutbacks.
- Areas away from direct patient care are always untidy and dirty especially lifts. Minimal time to educate patients pre-operation as patients come in 2-3 hours prior to surgery, often before the other patient has gone home, i.e. admitted in a waiting area or spare bed. This increases the number of patients for the nurse to care for.
- Responses for repairs of equipment and access to services such as occupational therapy and physiotherapy are markedly reduced.
- Clinic appointments have a waiting time of more than 6 weeks.
- We have not been very good at explaining to patients the expected length of stay for an admission or giving patients education on these illnesses as the length of stay has decreased. This is particularly evident with surgical patients who are admitted on the day of surgery.
- Hospital does not have enough funding to provide adequate written information pamphlets. I have had to raise money to buy pamphlets through raffles etc.
- Patients are more often admitted the morning of surgery. They are in bed sometimes 10 minutes before theatre. No pre-operative teaching. No opportunity for effective communication.
- Information is often given before the patient is well enough to take it in.

- There is less discharge planning. Patients and relatives do not get 24 hours' notice of discharge (mostly a couple of hours). This often means that transportation and medications cannot be organised early so patients are sent to a transfer lounge or sit in the day-room while another patient is admitted to the bed. Less time for nurses to educate patients.
- Wards are noisy and busy due to the push for early discharge.

Allied health professionals

- Pressure for throughput has meant hospitals have generally given less consideration to patients' social and emotional needs.
- Clinical areas are visibly less clean and physically less frequently cleaned.
- Many patients do not appear to know who their doctor is, let alone have meaningful communication with him/her. There is a pervading assumption that information sessions, pamphlets and pre-admission questionnaires can replace much face-to-face interaction.
- Blood spills in public areas (e.g. hallways) not cleaned over 2 days.
- Patients often feel lost as they are rushed into their hospital bed and no one explains what is happening and why.
- Many patients are confused at the time of discharge in terms of where they are going, why and will they be able to cope. Support services need to be explained.
- Insufficient staff to co-ordinate patient care or provide for continuity of care.
- From an allied health perspective, staff reductions and the resultant increase in workload have meant that we are not able to devote as much time to supportive care as we did previously because our priority is discharge planning.
- Extra interpreters not made available despite recognised demand.
- The number of food choices available to patients has decreased and ability to meet individual food needs has decreased.

IMPACT OF FACTORS, INFLUENCED BY REFORM, ON QUALITY OF CARE

Overall audit comment

4.48 In order to assess whether quality of care has been safeguarded, audit sought the views, based on the professional judgement of Chief Executive Officers and senior clinicians, in relation to the impact of specific factors on quality in their hospitals. A detailed listing of these views is contained in Appendix B of this Report.

4.49 The survey revealed that at least 50 per cent of one category of senior clinicians were of the view that the following factors listed in Table 4A, which have been directly effected as a result of government reforms, have led to a deterioration in the quality of hospital care since 1 July 1993. These views were not shared to the same extent by Chief Executive Officers, particularly network Chief Executive Officers.

TABLE 4A
FACTORS WHICH HAD LED TO A DETERIORATION
IN THE QUALITY OF HOSPITAL CARE
(per cent)

Factors	*Proportion of senior clinicians*			
	Total	*Senior doctors*	*Charge nurses*	*Allied health professionals*
Work demands on nurses	83	85	90	68
Number of cleaning staff	78	74	81	78
Work demands on doctors	78	88	79	59
Administrative workload	76	83	74	69
Cleanliness of hospital facilities	74	71	76	76
Maintenance of hospital buildings	62	68	67	41
Restful atmosphere	59	62	57	58
Extent of ward closures	59	68	54	53
Maintenance of equipment	59	69	63	34
Waiting time for attendance by nurses	57	50	69	45
Patient access to allied health services	55	65	49	51
Level of ancillary non-medical patient services, e.g. health promotion and interpreter services	48	58	41	46
Unplanned re-admissions	48	50	48	42
Waiting time for attendance by doctors	47	41	58	36
Patient dependency/severity of illness	37	28	50	27

4.50 The majority of network and hospital Chief Executive Officers who expressed a view indicated that the following factors have contributed to a deterioration in the quality of care:

- cleanliness of hospital facilities;
- level of ancillary non-medical patient services, e.g. interpreter services;
- maintenance of equipment and hospital buildings; and
- work demands on doctors and nurses.

4.51 One major network which services a substantial number of patients indicated all of the above factors have compromised the quality of care in hospitals in its network. The network indicated that the following additional factors also had an adverse impact on the quality of care:

- number of cleaning staff (have reduced substantially);
- patient access to critical care services; and
- waiting time for attendance by nurses.

4.52 In terms of improving quality of care, at least 50 per cent of senior clinicians indicated that the following factors shown in Table 4B have had a favourable impact.

TABLE 4B
FACTORS WHICH HAD LED TO AN IMPROVEMENT IN THE QUALITY OF HOSPITAL CARE
(per cent)

	Proportion of senior clinicians			
Factors	*Total*	*Senior doctors*	*Charge nurses*	*Allied health professionals*
Discharge planning practices	55	58	62	36
Pre-admission practices	59	53	69	53
Patient admission practices	43	37	53	32

4.53 Although it cannot be denied that in terms of aggregate numbers, access by elective patients categorised as urgent and semi-urgent have increased, the results shown on Table 4C indicate that for certain patient groups in particular hospitals, patient access may have contributed to a deterioration in quality of hospital care. This matter needs further investigation.

TABLE 4C
FACTORS RELATING TO PATIENT ACCESS WHICH MAY HAVE CONTRIBUTED TO A DETERIORATION IN THE QUALITY OF HOSPITAL CARE
(per cent)

	Proportion of senior clinicians	
Factors	*Improvement*	*Deterioration*
Patient access to critical care services	8	32
Patient access to elective surgery	19	32
Patient access to emergency services	10	26

4.54 Due to the size of networks, it is important to disclose that one particular network, although not able to separate the effects of casemix from micro-economic reforms, claimed that these reforms influenced the following factors which have compromised the quality of care in the hospitals in their network:

- cleanliness of hospital facilities;
- level of ancillary non-medical patient services, e.g. health promotion and interpreter services;
- maintenance of equipment;
- maintenance of hospital buildings;
- work demands on nurses.

STANDARD OF SUPPORTIVE CARE

Overall audit comment

4.55 Although agreed benchmarks were not in place, audit nevertheless considered that there was value in requesting senior clinicians to rate the standard of various elements of supportive care in their hospitals, due to their direct involvement in patient care.

4.56 Generally speaking, most factors were rated in the average category. Some of the more encouraging findings related to communication and respect for family members while the most serious deficiencies related to hospital cleanliness and interpreter services.

Views of clinicians

In the context of the quality of supportive care, please rate the standard of the following categories of services in your hospital according to the scale provided:

	Low	*Average*	*High*	*Other (a)*
Communication between nurses and relatives -				
Charge nurses	13 (4%)	118 (39%)	160 (52%)	14 (5%)
Communication between nurses and patients -				
Charge nurses	9 (3%)	89 (29%)	196 (64%)	11 (4%)
Counselling services for patients -				
Senior doctors	71 (27%)	109 (41%)	55 (21%)	31 (11%)
Charge nurses	75 (25%)	138 (45%)	69 (23%)	23 (7%)
Allied health professionals	38 (25%)	61 (40%)	29 (19%)	26 (16%)
Hospital cleanliness -				
Senior doctors	111 (42%)	108 (41%)	35 (13%)	12 (4%)
Charge nurses	151 (50%)	110 (36%)	33 (11%)	11 (3%)
Allied health professionals	64 (42%)	65 (42%)	22 (14%)	3 (2%)
Interpreter services -				
Senior doctors	110 (41%)	87 (33%)	35 (13%)	34 (13%)
Charge nurses	112 (37%)	114 (37%)	46 (15%)	33 (11%)
Allied health professionals	65 (42%)	46 (30%)	21 (14%)	22 (14%)
Linen services -				
Senior doctors	41 (15%)	117 (44%)	30 (11%)	78 (30%)
Charge nurses	65 (21%)	161 (53%)	57 (19%)	22 (7%)
Allied health professionals	12 (8%)	61 (40%)	17 (11%)	64 (41%)
Physical environment -				
Senior doctors	89 (33%)	101 (38%)	64 (24%)	12 (5%)
Charge nurses	101 (33%)	119 (39%)	73 (24%)	12 (4%)
Allied health professionals	42 (27%)	68 (44%)	39 (26%)	5 (3%)

In the context of the quality of supportive care, please rate the standard of the following categories of services in your hospital according to the scale provided: - continued

	Low	*Average*	*High*	*Other (a)*
Privacy of patients -				
Senior doctors	104 (39%)	109 (41%)	33 (12%)	20 (8%)
Charge nurses	90 (30%)	132 (43%)	70 (23%)	13 (4%)
Allied health professionals	38 (25%)	90 (58%)	12 (8%)	14 (9%)
Respect for family members-				
Senior doctors	19 (7%)	102 (39%)	123 (46%)	22 (8%)
Charge nurses	16 (5%)	79 (26%)	198 (65%)	12 (4%)
Allied health professionals	15 (10%)	76 (49%)	52 (34%)	11 (7%)
Safety of patients -				
Senior doctors	21 (8%)	131 (49%)	92 (35%)	22 (8%)
Charge nurses	31 (10%)	123 (40%)	142 (47%)	9 (3%)
Allied health professionals	12 (8%)	64 (42%)	60 (39%)	18 (11%)
Standard of equipment -				
Senior doctors	75 (28%)	110 (41%)	68 (26%)	13 (5%)
Charge nurses	62 (20%)	148 (49%)	85 (28%)	10 (3%)
Allied health professionals	22 (14%)	76 (49%)	31 (20%)	25 (17%)

(a) "Other" comprises either "No response", "Don't know" or "Not applicable".

Industry submission

4.57 An extract of a submission to audit from an industry group indicated that *"... there is a chronic shortage of linen, dressings, equipment and maintenance of equipment. All these are the simple tools required to provide basic, quality and safe care."*

DO HOSPITAL PROCEDURES EFFECTIVELY SAFEGUARD QUALITY OF CARE?

Overall audit comment

4.58 The survey results show that networks are united in their positive views on this particular topic. In relation to hospital Chief Executive Officers, opinion was, however, variable in that one-third claimed that quality of patient care had fallen to some extent in their hospitals and a slightly higher proportion considered that quality of care had not been effectively safeguarded. However, in terms of the future, 87 per cent of hospital Chief Executive Officers agreed that new procedures have been introduced to improve or maintain the quality of patient care.

4.59 In addition, audit gave considerable weight to views of senior doctors as they have a paramount role in safeguarding clinical care. In this regard, 48 per cent indicated that current procedures did not effectively safeguard the quality of clinical care. A much lower proportion of charge nurses and allied health professionals shared this view.

4.60 Opinions in relation to supportive care were mixed between the groups with the majority of senior doctors convinced that current procedures do not effectively safeguard quality. This view was not supported by 53 per cent of charge nurses.

Views of the industry

Do you agree or disagree with the following statements:

	Agree	*Disagree*	*Other (a)*
"The quality of patient care has fallen to some extent" -			
Networks (since 1 August 1995)		6 (100%)	
Metropolitan hospitals (since 1 July 1993)	4 (31%)	6 (46%)	3 (23%)
Rural hospitals (since 1 July 1993)	18 (38%)	25 (53%)	4 (9%)
"The quality of care has been effectively safeguarded" -			
Networks (since 1 August 1995)	5 (83%)		1 (17%)
Metropolitan hospitals (since 1 July 1993)	5 (38%)	6 (46%)	2 (16%)
Rural hospitals (since 1 July 1993)	23 (49%)	18 (38%)	6 (13%)
"New procedures have been introduced to improve or maintain the quality of patient care" -			
Networks (since 1 August 1995)	6 (100%)		
Metropolitan hospitals (since 1 July 1993)	11 (84%)	1 (8%)	1 (8%)
Rural hospitals (since 1 July 1993)	41 (87%)	6 (10%)	1 (3%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Do you agree or disagree with the following statement:
"Current procedures in the hospital effectively safeguard the:"

	Agree	*Disagree*	*Other (a)*
Quality of clinical care -			
Senior doctors	122 (46%)	128 (48%)	16 (6%)
Charge nurses	207 (68%)	87 (28%)	11 (4%)
Allied health professionals	88 (57%)	48 (31%)	18 (12%)
Quality of supportive care -			
Senior doctors	81 (30%)	144 (54%)	41 (16%)
Charge nurses	161 (53%)	124 (41%)	20 (6%)
Allied health professionals	66 (43%)	66 (43%)	22 (14%)

(a) "Other" comprises either "No response" or "Don't know".

Industry submission

4.61 An extract of a submission received by audit from an industry group indicated that *"... although technical quality of care is generally high there are anecdotal indications that care quality is perhaps not as high as it should be. The patient satisfaction survey auspiced by the Department of Human Services, which seeks to access consumer views on quality of care, is being rolled out to all public acute hospitals in 1997. The 1996 pilot survey demonstrated clearly that, although the opinion of the quality of treatment appears overwhelmingly positive, according to patients surveyed, there were some shortcomings in relation to personal attention, communication, information and involvement which constitute the care aspects of quality."*

DO ACCREDITATION STANDARDS SAFEGUARD QUALITY OF PATIENT CARE?

Overall audit comment

4.62 Apart from networks, there is an element of uncertainty throughout the acute health industry as to whether the achievement of accreditation from the Australian Council on Healthcare Standards signifies an adequate safeguard to the quality of patient care. In aggregate terms, senior doctors and charge nurses have differing attitudes to this particular issue with nurses far more positive than doctors.

4.63 Half of the network and two-thirds of the hospital Chief Executive Officers were reluctant to claim that accreditation standards of the Australian Council on Healthcare Standards or their equivalent adequately safeguard quality of patient care. In electing to describe accreditation as only somewhat safeguarding quality, this sentiment calls into question the value of one of the Department's major quality initiatives, i.e. for all hospitals to be accredited by the year 2000.

Views of the industry

Do you agree or disagree with the following statement: Accreditation standards of the Australian Council on Healthcare Standards adequately safeguard the quality of patient care.

	Agree	*Disagree*	*Other (a)*
Networks	5 (83%)	1 (17%)	
Metropolitan hospitals	7 (54%)	4 (31%)	2 (15%)
Rural hospitals	27 (58%)	17 (36%)	3 (6%)

(a) "Other" comprises either "No response" or "Don't know".

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Do you agree or disagree with the following statement: Accreditation standards of the Australian Council on Healthcare Standards sufficiently safeguard the:

	Agree	*Disagree*	*Other (a)*
Quality of clinical care -			
Senior doctors	92 (35%)	142 (53%)	32 (12%)
Charge nurses	200 (66%)	83 (27%)	22 (7%)
Allied health professionals	75 (49%)	68 (44%)	11 (7%)
Quality of supportive care -			
Senior doctors	75 (28%)	136 (51%)	55 (21%)
Charge nurses	175 (57%)	99 (33%)	31 (10%)
Allied health professionals	69 (45%)	69 (45%)	16 (10%)

(a) "Other" comprises either "No response" or "Don't know".

To what extent do accreditation standards of the Australian Council on Healthcare Standards or other equivalent bodies safeguard the quality of patient care?

	Adequately safeguards	*Somewhat safeguards*	*Does not safeguard at all*	*DK*
Networks	3 (50%)	3 (50%)		
Metropolitan hospitals	4 (31%)	9 (69%)		
Rural hospitals	16 (34%)	29 (62%)	1 (2%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Departmental initiatives relating to quality

4.64 Two of the initiatives pursued by the Department since the implementation of casemix funding have been the accreditation of hospitals and the introduction of patient satisfaction surveys. Table 4D shows the progressive development of certain quality initiatives by the Department.

TABLE 4D
QUALITY INITIATIVES UNDER CASEMIX FUNDING, 1993-94 TO 1996-97

1993-94	*1994-95*	*1995-96*	*1996-97*
• $15 000 per participating hospital provided by the Department for Australian Council on Healthcare Standards accreditation. • Patient Satisfaction Survey piloted (2 hospitals). • Unplanned readmission rates monitored as an interim quality indicator. • Patients' Charter developed and distributed during the year.	• $30 000 per hospital (group A & B) for Australian Council on Healthcare Standards accreditation. • Patient satisfaction survey extended (15 - 20 hospitals).	• Existing strategies continued. • Stage 2 of patient satisfaction survey involved 30 hospitals. • Issues paper released for consultation prior to start of year.	• An additional $300 000 allocated to increase accreditation grants. • Evaluation and Quality Improvement Program, ISO 9000 encouraged. • $3 million allocated towards clinical risk management pilots. • All hospitals included in patient satisfaction survey. • Data on preferred language collected for Victorian Inpatient Minimum Dataset. • Infection Control Taskforce established. • $0.75 million allocated to foster "best practice".

Source: Extract from VHA Submission, 1997.

Hospital accreditation

4.65 The accreditation system for hospitals operated by the Australian Council on Healthcare Standards is totally voluntary.

4.66 The Council is changing its primary focus on processes of care towards the monitoring of outcome indicators which are developed by the Council in association with various medical colleges. While data on the outcomes of care are gathered in some specialties, it is too early to assess the validity of the new outcome indicators and the accuracy of the associated information.

4.67 The following concerns have been expressed by the Taskforce on Quality in Australian Healthcare regarding the current accreditation system:

- accreditation surveys are scheduled events which permit hospitals to carefully prepare conditions and processes which are not routinely in force;
- the system for ensuring that hospitals respond appropriately and promptly to key concerns of the Council's accreditation team is not sufficiently effective;
- accreditation and indicator information collected by the Council is confidential and should be a more open and public process; and
- accreditation would be greatly improved by focusing on outcomes of care.

4.68 Audit was informed that revised Council's accreditation procedures are to address these concerns with continuous self-assessment by providers, more frequent examinations and the follow-up of identified problem areas by the Council's assessors.

4.69 The Department proposes to make participation in the Council's accreditation process mandatory for all public hospitals from the year 2000.

4.70 The Department should ensure that, in conjunction with the mandatory requirement for the Council's accreditation, networks and hospitals be required to release uniform accreditation information publicly. The information released should provide benefit for the public but not compromise the accreditation process.

4.71 In addition to providing funds for the encouragement of accreditation, the Department employs a range of strategies to promote quality initiatives in hospitals. These include the provision of funds for best practice initiatives, infection control audits and the implementation of 5 risk management programs. The Department is also giving a major priority to the development of clinical indicators using both the Victorian Inpatient Minimum Dataset and the Council's Evaluation and Quality Improvement Program indicators.

4.72 In order to complement the Department's existing quality strategies, audit suggests that the following measures should also be considered:

- The Department place greater emphasis on clinical pathways by providing funds for their development through evidence-based medicine. As many large metropolitan hospitals have developed clinical pathways for high volume procedures, the Department should require hospitals to:
  - report the proportion of patients who are managed through clinical pathways;

- provide information on outcomes following the application of clinical pathways, e.g. functionality results or the extent of children suffering with asthma who return to school;
- disclose details of clinical pathways in use; and
- as a condition of funding, share information on clinical pathways and stipulate that data, supplied as the basis of funding, may be audited.

- The greater use of targeted purchasing strategies to pay for acute services that are identified through evidence-based medicine as adding value in terms of patient outcomes; and
- The greater use of service planning to inform the purchasing process of the acute services that the Department should be targeting as part of its tender specification or through other funding incentives.

EXTENT OF ACCREDITATION OF HOSPITALS

Overall audit comment

4.73 Accreditation is more prevalent in the metropolitan area with 92 per cent of metropolitan hospitals having obtained accreditation as opposed to 68 per cent of rural hospitals. In addition, only 31 per cent of local hospitals are accredited.

Views of networks and hospitals

How does the network assure itself that accreditation funds provided under casemix are appropriately expended by its hospitals on accreditation activities?

4.74 Networks advised that measures taken to assure themselves that accreditation funds provided under casemix are appropriately expended by its hospitals on accreditation activities consist of:

- introducing a decentralised management structure; and
- allocating the responsibility to a Quality Assurance Co-ordinator.

4.75 Further, 4 out of the 6 networks offered the comment that their network's expenditure on accreditation activities and on quality improvement significantly exceeds the small accreditation funding provided under casemix.

Please answer Yes or No to the following questions on accreditation:

	Yes	No	na
Is your hospital accredited with the Australian Council on Healthcare Standards?			
Metropolitan hospitals	11 (85%)	2 (15%)	
Rural hospitals	31 (66%)	16 (34%)	
Is your hospital certified under ISO 9000 or any other complementary accreditation?			
Metropolitan hospitals	1 (8%)	12 (92%)	
Rural hospitals	1 (2%)	44 (94%)	2 (4%)
Has your hospital been granted statutory immunity under section 139 of the Health Services Act from any subsequent legal action resulting from the reporting on quality performance?			
Metropolitan hospitals	9 (69%)	3 (23%)	1 (8%)
Rural hospitals	39 (83%)	6 (13%)	2 (4%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

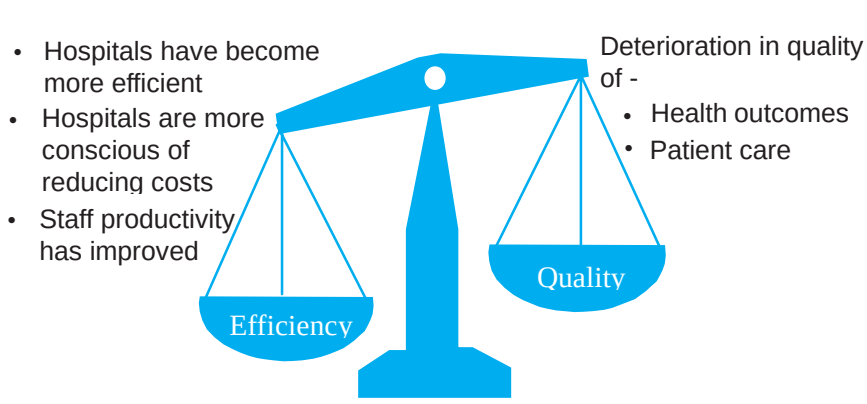
Industry submission

4.76 An extract of a submission from an industry group received by audit in relation to the extent of accreditation of hospitals follows:

- Since 1993-94 the Department has provided incentive funding to hospitals for accreditation by the Australian Council on Healthcare Standards.

  As of 30 June 1995, 83 per cent of Victorian public hospital beds were accredited, the highest of any mainland State and the figure is understood to have increased since, as a result of financial encouragement from the Department of Human Services, which is keen for all public hospitals to be accredited. It should be noted that hospitals in the United States of America which are not accredited do not receive funding from some insurers and government agencies, effectively compelling them to be accredited. Funding was increased in 1996-97 with provision of the Australian Council on Healthcare Standards Survey Report being made a condition of receiving the accreditation grant.

HAS THE GOAL OF EFFICIENCY COMPETED DIRECTLY WITH QUALITY?



Overall audit comment

4.77 The purpose of this line of inquiry was to assess whether there has been an over-emphasis on efficiency to the detriment of quality of patient care. No attempt was made to identify time periods over which priorities may have changed.

4.78 The results show that, in aggregate terms, hospital Chief Executive Officers do not share the overriding view of networks that the goal of efficiency has not competed with the provision of quality care. This may be a recent trend whereas hospital Chief Executive Officers may be influenced by events prior to the operation of networks in August 1995.

4.79 Around 8 out of every 10 senior clinicians consider that the goal of financial efficiency has directly competed with the quality of clinical and supportive care.

Views of the industry

Do you agree or disagree with the following statements generally applicable to public hospitals:

	Agree	*Disagree*	*Other (a)*
The goal of efficiency has directly competed with the provision of quality care -			
Networks	1 (17%)	5 (83%)	
Metropolitan hospitals	6 (46%)	6 (46%)	1 (8%)
Rural hospitals	29 (62%)	16 (34%)	2 (4%)
The quality of patient care is a priority above those of efficiency targets -			
Networks	3 (50%)	3 (50%)	
Metropolitan hospitals	7 (54%)	5 (38%)	1 (8%)
Rural hospitals	26 (55%)	19 (41%)	2 (4%)
The quality of patient care is a priority equal to those of efficiency targets -			
Networks	3 (50%)	3 (50%)	
Metropolitan hospitals	6 (46%)	5 (38%)	2 (16%)
Rural hospitals	13 (28%)	30 (64%)	4 (8%)
The quality of patient care is a priority less than those of efficiency targets -			
Networks		6 (100%)	
Metropolitan hospitals		11 (85%)	2 (15%)
Rural hospitals	10 (21%)	35 (75%)	2 (4%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Do you agree or disagree with the following statements:			
	Agree	*Disagree*	*Other (a)*
The goal of financial efficiency has directly competed with the quality of clinical care -			
Senior doctors	216 (81%)	39 (15%)	11 (4%)
Charge nurses	250 (82%)	39 (13%)	16 (5%)
Allied health professionals	112 (73%)	29 (19%)	13 (8%)
The goal of financial efficiency has directly competed with the quality of supportive care			
Senior doctors	218 (82%)	28 (11%)	20 (7%)
Charge nurses	258 (85%)	26 (9%)	21 (6%)
Allied health professionals	122 (79%)	23 (15%)	9 (6%)

(a) "Other" comprises either "No response" or "Don't know".

ACHIEVEMENT OF PRODUCTIVITY GAINS, EQUITY OF FUNDING AND QUALITY

Overall audit comment

4.80 While the majority of networks and, to a lesser extent, hospitals (opinions were divided) felt that casemix funding had achieved its primary objectives of improving hospital productivity and equity of funding without any observable reduction in quality, around three-quarters of senior clinicians do not share this view.

Views of the industry

Do you agree or disagree with the following statement:			
	Agree	*Disagree*	*DK/No response*
"... the researchers concluded that casemix funding [in Victoria] had achieved its primary objectives of improving hospital productivity and equity of funding without any observable reduction in quality ..." *(John Pilla, Manager - Information & Performance Evaluation, and Dr Neil Powers, Project Officer, Acute Health Services Division, Victorian Department of Health and Community Services [now Department of Human Services], "Evaluating casemix funding", in* Australian Casemix Bulletin*, November 1995, p. 23)*			
Networks	4 (67%)	1 (17%)	1 (16%)
Metropolitan hospitals	7 (54%)	3 (23%)	3 (23%)
Rural hospitals	20 (43%)	24 (51%)	3 (6%)
Senior doctors	57 (22%)	195 (73%)	14 (5%)
Charge nurses	42 (14%)	255 (84%)	8 (2%)
Allied health professionals	18 (12%)	122 (79%)	14 (9%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

CUTTING CORNERS ON NON-CLINICAL ASPECTS OF QUALITY

Overall audit comment

4.81 The vast majority of the acute health industry confirmed that some hospitals have cut corners on non-clinical aspects of quality that were not specified in the casemix formula.

Views of the industry

Do you agree or disagree with the following statement:

	Agree	*Disagree*	*DK/No response*
"The hospitals [in Victoria] certainly did what we paid them to do, but some cut corners on non-clinical aspects of quality (like clean toilets and waiting time in casualty) that were not specified in the casemix formula." (*Dr John Paterson, Secretary, Department of Human Services,* National Healthcare Reform: The Last Picture Show, *Department of Human Services, Government of Victoria, April 1996, p. 26)*			
Networks	5 (83%)		1 (17%)
Metropolitan hospitals	7 (54%)	4 (30%)	2 (16%)
Rural hospitals	28 (60%)	12 (25%)	7 (15%)
Senior doctors	192 (72%)	57 (22%)	17 (6%)
Charge nurses	245 (80%)	46 (15%)	14 (5%)
Allied health professionals	123 (80%)	20 (13%)	11 (7%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

QUALITY OF SERVICES PROVIDED TO CERTAIN VULNERABLE GROUPS

Overall audit comment

4.82 Large numbers of senior clinicians, generally around 40 per cent, expressed the view that the quality of inpatient services provided to certain vulnerable groups such as the chronically ill, the aged and socio-economically disadvantaged groups had worsened since 1 July 1993. The very high percentage of responses in the "Other" category relates to mental health patients as most are not treated in acute health facilities.

Views of clinicians

Please indicate whether, compared to previous years (i.e. since 1 July 1993), the quality of inpatient services in the hospital(s) you worked, overall has improved, worsened or has not changed for the following groups:

	Improved	*No change*	*Worsened*	*Other (a)*
Chronically ill -				
Senior doctors	20 (8%)	82 (31%)	117 (44%)	47 (17%)
Charge nurses	50 (16%)	72 (24%)	124 (41%)	59 (19%)
Allied health professionals	13 (8%)	41 (27%)	62 (40%)	38 (25%)
Aged -				
Senior doctors	21 (8%)	74 (28%)	100 (38%)	71 (26%)
Charge nurses	33 (11%)	61 (20%)	122 (40%)	89 (29%)
Allied health professionals	16 (10%)	32 (21%)	63 (41%)	43 (28%)
Mental health patients -				
Senior doctors	24 (9%)	53 (20%)	61 (23%)	128 (48%)
Charge nurses	49 (16%)	33 (11%)	93 (30%)	130 (43%)
Allied health professionals	21 (14%)	19 (12%)	29 (19%)	85 (55%)
Socio-economically disadvantaged groups -				
Senior doctors	15 (6%)	104 (39%)	107 (40%)	40 (15%)
Charge nurses	33 (11%)	111 (36%)	114 (37%)	47 (16%)
Allied health professionals	8 (5%)	45 (29%)	53 (35%)	48 (31%)

(a) "Other" comprises either "No response" or "Don't know".

ADVERSE EVENTS

Overall audit comment

4.83 Adverse events include all incidents and accidents during medical interventions which exacerbate the acute illness of patients, e.g. misdiagnoses, administering the wrong medication, acquiring infections while in hospital and accidental injuries. In the worst case scenario, adverse events could lead to an increase in hospital mortality rates.

4.84 It is encouraging that 8 out of every 10 hospital Chief Executive Officers reported that their hospital was adequately equipped to control and monitor hospital-acquired infection rates and the vast majority claimed that the extent of incident reports in their hospital using 1992-93 as a baseline had remained relatively constant. Although around one-quarter of senior doctors and charge nurses claimed an increase in adverse events, a larger proportion indicated that there was no change.

4.85 Audit suggested that various measures need to be implemented by the Department to enhance the accuracy and quality of recording adverse events. The Department should also monitor trends in adverse events data.

Views of the industry

Do you agree or disagree with the following statement:

	Agree	Disagree	Other (a)
The hospital(s) is adequately equipped to control and monitor hospital acquired infection rates -			
Metropolitan hospitals	10 (77%)	1 (8%)	2 (15%)
Rural hospitals	40 (85%)	7 (15%)	

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Using 1992-93 as a baseline and allowing for subsequent changes in throughput, have the number of incident reports in your hospital:

	Metropolitan hospitals	Rural hospitals
Substantially increased in subsequent years	1 (8%)	2 (4%)
Marginally increased in subsequent years	3 (23%)	4 (9%)
Remained relative constant in subsequent years	8 (62%)	30 (64%)
Marginally declined in subsequent years		1 (2%)
Other (a)	1 (7%)	10 (21%)

(a) "Other" comprises either "No response" or "Don't know".

4.86 Various hospitals reported that the increase in incident reports can be attributed to:

- higher patient numbers;
- an increase in staff workload; and
- greater awareness of incidents and improved reporting mechanisms.

With the increase in throughput since 1 July 1993, the number of adverse events (i.e. injuries, complications or disabilities resulting from health care management) may have also increased but not necessarily in proportion. Allowing for the increased throughput, has the extent of adverse events increased, remained the same or declined?

	Senior doctors	Charge nurses	Allied health professionals
Substantially increased	10 (4%)	15 (5%)	5 (3%)
Marginally increased	51 (19%)	69 (23%)	21 (14%)
Remained relatively constant	130 (49%)	122 (40%)	41 (27%)
Marginally declined	13 (5%)	11 (4%)	2 (1%)
Substantially declined	2 (1%)	4 (1%)	1 (1%)
Other (a)	60 (22%)	84 (27%)	84 (54%)

(a) "Other" comprises either "No response" or "Don't know".

4.87 Senior clinicians' views of the major factors contributing to the increased incidence of adverse events include the following:

Senior doctors

- Overcrowding and understaffing have caused much of the outbreaks of infections.
- The decrease in length of stay and bed numbers has resulted in increased complexity and severity of illness for inpatients.
- Together with increased workload and higher turnover of patients, it is difficult to maintain adequate quality and standard of care.
- Data collection is dubious in quality. Older patients are readmitted more often. This fact is obscured by the reporting of all age figures for readmission.

Charge nurses

- Increased patient acuity, reduced patient/staff ratios and a reduction of experienced staff have contributed to the increased proportion of adverse events.
- Poor staff levels, low morale and high stress levels combined to make more room for errors.
- With the increase of college graduates, the decrease of senior nurses, the increase in patient throughput and not enough time for more supervision, incidents occur.
- Often complications not observed prior to discharge so patient discharged. There is less time for medical and nursing staff to adequately assess patients and detect early signs of complications. The level of follow-up in the community post-discharge is poor.
- Increased workloads lead to less attention to detail resulting in greater opportunity for adverse incidents. Less time and more haste in planning and implementing procedures and treatments are also contributing factors.

Adverse events as an indicator of quality

Recording of adverse events

4.88 Adverse events are recorded in the Victorian Inpatient Minimum Dataset, which is a comprehensive set of hospital and patient details (e.g. length of stay, cost per treatment). The information is forwarded by hospitals to HCS Australia Pty Ltd which maintains the database on behalf of the Department.

4.89 In audit's view, the extent of adverse events represents a far more effective indicator of the quality of care than the widespread use of patient satisfaction surveys which remains the Department's main instrument for measuring the quality of care. Adverse events represent the most serious consequences that can arise from a lack of appropriate clinical care. However, in relation to the use of patient satisfaction surveys, specialist advice provided to audit indicated that there is considerable research to demonstrate that patient satisfaction surveys tend to achieve favourable outcomes even if poor quality services are provided. Rather than extending the practice of surveying patients after discharge from hospital, the Department should consider also surveying patients on the waiting list to broaden its suite of indicators to measure effectiveness.

4.90 Since the Australian Council on Healthcare Standards accreditation process has stipulated the recording of adverse events as part of the accreditation process, hospitals have been more diligent in counting adverse events. However, the reliability of the recording of the data still remains open to question according to some network and hospital Chief Executive Officers interviewed by audit. Issues relating to poor definitions and inconsistent data collection need to be addressed.

4.91 In order to enhance the accuracy and data quality of the adverse events recorded in the Victorian Inpatient Minimum Dataset, the Department should include an audit of all codes applicable to adverse events as part of the Department's annual coding audits. Through its Quality Committee, the Department should investigate whether trends in codes applicable to adverse events are related substantially to improved data recording or to underlying changes in the process of care.

Analysis of adverse events data, e.g. mortality rates

4.92 Data analysed by the Department for specific surgical procedures (e.g. prostatectomies and cholecystectomies) shows a significant increase in the proportion of adverse events in the 2 years following casemix funding. The increase is attributed by the Department to better counting and changes in the threshold for including adverse events in a hospital's database.

4.93 The Department also analysed mortality data as an indicator of an adverse event for the same surgical procedures. This analysis showed that mortality rates declined by an equal proportion to that of an increase of adverse events over the same period. The decline in mortality rate is attributed by the Department to improved quality of care.

4.94 Although it is extremely difficult to form a conclusive view, it is feasible that the increase in adverse events is due to a combination of factors associated with the introduction of casemix funding and micro-economic reforms. Adverse events could reflect a poorer process of care due to the increased work volumes, premature discharge of patients or the lack of post-acute care processes in the community. For example, clinical advice indicated that the current practice of encouraging discharge of patients following prostatectomies in a time frame shorter than the recommended 5 day length of stay could lead to later complications such as the formation of blood clots.

4.95 The reduced mortality rates may reflect better health outcomes for the patient, even though the processes involving the provision of care may have been deficient. In other words reduced mortality rates may mask a poorer process of care and are not in themselves a reason to be complacent.

QUALITY IMPROVEMENT/ASSURANCE ACTIVITIES

Overall audit comment

4.96 According to advice provided by the Department, a wide range of quality-related initiatives had been introduced both pre- and post-casemix on a system-wide basis.

4.97 At a network and hospital level, the audit survey revealed that the development of quality assurance plans and quality improvement programs was widespread, with most senior clinicians involved in such programs. Quality initiatives that the highest proportion of senior clinicians felt had improved quality of care related to changes in clinical practices (e.g. clinical pathways) and quality activities (e.g. quality studies or peer reviews). However, half the senior doctors felt that, although the quality improvement program in their hospitals included clinical indicator monitoring, the use of such information had no effect on quality of care.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

Some of the major quality-related activities at a system-wide level, compiled by the Department, are set out below:

- *Funding for clinical risk management pilot projects which are trialing the use of a generic occurrence classification of adverse patient events;*
- *Funds to assist in the development of clinical specialty databases in intensive care and cardiothoracic surgery, which will routinely gather information on the processes and outcomes of care;*
- *Since 1984 a perinatal data collection unit has gathered information on the processes and outcomes of care for every birth in Victoria. This information is the subject of an Annual Report to Parliament;*
- *Similarly, anaesthetic mortality and morbidity are closely examined by a panel of clinical experts with an annual report to Parliament. Monitoring and investigation of surgical morbidity and mortality are about to be instituted;*
- *Improvement of the State coronial database;*
- *Substantial work undertaken by the Epidemiology Unit over the past 4 years to ascertain the extent to which routinely collected information can be used to monitor adverse events and indicators of quality of care on a Statewide basis. This work is readily available and has been published;*
- *An independent Health Services Commissioner was established in Victoria in 1988 to receive, investigate and resolve complaints from health service consumers, to support health care services in providing quality health care and assist them in resolving complaints;*
- *Funding for a variety of initiatives aimed at improving information availability to consumers;*
- *Support for the work of the Australasian Cochrane Centre and for systematic reviews of the effects of health care interventions;*
- *Funding for clinical epidemiology initiatives; and*
- *Incentive funds for a variety of projects aimed at improving patient safety and ensuring better coordination of care.*

Views of the industry

4.98 Audit was informed by the Department that many recommendations of the Taskforce on Quality in Australian Health Care have either been implemented in Victoria for several years or have been recently initiated.

Do you agree or disagree with the following statement generally applicable to public hospitals:

	Agree	*Disagree*	*Other (a)*
A quality assurance plan has been developed for each hospital -			
Networks	6 (100%)		
Metropolitan hospitals	12 (92%)		1 (8%)
Rural hospitals	45 (96%)	1 (2%)	1 (2%)

(a) "Other" comprises either "No response", or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Do hospitals you are responsible for have a quality assurance program?

	Yes	*No*
Networks	6 (100%)	
Metropolitan hospitals	13 (100%)	
Rural hospitals	46 (98%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Apart from quality assurance programs, does your organisation have a policy in relation to the introduction of quality improvement programs?

	Yes	*No*	*DK*
Networks	6 (100%)		
Metropolitan hospitals	11 (85%)	2 (15%)	
Rural hospitals	34 (72%)	12 (26%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

4.99 In general, hospitals reported that significant progress had been made. Particular examples of progress that has been achieved by networks and hospitals are listed below:

- the development of a comprehensive Quality Plan which involves all departments and hospitals in the network;
- the introduction of a clinical risk management pilot in a particular network;
- the introduction of the Australian Council on Healthcare Standards' Evaluation and Quality Improvement Program throughout many hospitals;
- a number of hospitals have gained Australian Council on Healthcare Standards accreditation; and
- various hospitals indicated that a range of quality activities are reviewed regularly by a Quality Committee established within the hospitals.

Has your hospital submitted a copy of its quality assurance plan to the Department?

	Yes	No	na
Metropolitan hospitals	9 (70%)	2 (15%)	2 (15%)
Rural hospitals	40 (85%)	4 (9%)	3 (6%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Are you personally involved in a quality improvement program in the hospital in which you work?

	Yes	No	Other (a)
Senior doctors	229 (86%)	30 (11%)	7 (3%)
Charge nurses	267 (88%)	33 (11%)	5 (1%)
Allied health professionals	142 (92%)	11 (7%)	1 (1%)

(a) "Other" refers to involvement in other reviews or quality improvement activities.

If yes, does the quality improvement program involve:

	Yes	No	Other (a)
Changes to clinical practices, e.g. clinical pathways -			
Senior doctors	200 (87%)	24 (11%)	5 (2%)
Charge nurses	231 (87%)	25 (9%)	11 (4%)
Allied health professionals	118 (83%)	20 (14%)	4 (3%)
Clinical indicator monitoring/use -			
Senior doctors	207 (90%)	16 (7%)	6 (3%)
Charge nurses	221 (83%)	32 (12%)	14 (5%)
Allied health professionals	114 (80%)	23 (16%)	5 (4%)
Quality activities, e.g. quality studies or peer reviews -			
Senior doctors	219 (95%)	9 (4%)	1 (1%)
Charge nurses	252 (94%)	8 (3%)	7 (3%)
Allied health professionals	136 (96%)	4 (3%)	2 (1%)
Utilisation review -			
Senior doctors	150 (66%)	67 (29%)	12 (5%)
Charge nurses	177 (66%)	64 (24%)	26 (10%)
Allied health professionals	92 (65%)	39 (27%)	11 (8%)
Other reviews, e.g. procedural audits covering areas such as infection control, surgical procedures, equipment, mortality -			
Senior doctors	77 (34%)	152 (66%)	
Charge nurses	101 (38%)	166 (62%)	
Allied health professionals	34 (24%)	108 (76%)	

(a) "Other" refers to involvement in other reviews or quality improvement activities.

For each of the quality initiatives to which you answered Yes, has the initiative improved, worsened or had no effect on the quality of care?

	Greatly improved	Improved	No effect	Worsened	Other (a)
Changes to clinical practices, e.g. clinical pathways -					
Senior doctors	8 (4%)	113 (49%)	72 (31%)	2 (1%)	34 (15%)
Charge nurses	32 (12%)	132 (49%)	54 (20%)		49 (19%)
Allied health professionals	10 (7%)	78 (55%)	23 (16%)		31 (22%)
Clinical indicator monitoring/use -					
Senior doctors	13 (6%)	77 (34%)	115 (50%)	1 (0%)	23 (10%)
Charge nurses	16 (6%)	118 (44%)	74 (28%)	1 (0%)	58 (22%)
Allied health professionals	5 (4%)	63 (44%)	36 (25%)	1 (1%)	37 (26%)
Quality activities (e.g. quality studies or peer reviews) -					
Senior doctors	11 (5%)	116 (51%)	75 (33%)	5 (2%)	22 (9%)
Charge nurses	21 (8%)	157 (59%)	65 (24%)	2 (1%)	22 (8%)
Allied health professionals	8 (6%)	99 (70%)	23 (16%)	2 (1%)	10 (7%)
Utilisation review -					
Senior doctors	4 (2%)	66 (29%)	77 (33%)	2 (1%)	80 (35%)
Charge nurses	11 (4%)	103 (39%)	59 (22%)	2 (1%)	92 (34%)
Allied health professionals	4 (3%)	53 (37%)	27 (19%)	1 (1%)	57 (40%)
Other reviews -					
Senior doctors	3 (4%)	50 (65%)	20 (26%)	3 (4%)	1 (1%)
Charge nurses	17 (17%)	57 (57%)	11 (11%)	4 (4%)	12 (11%)
Allied health professionals	9 (26%)	20 (59%)	4 (12%)		1 (3%)

(a) "Other" comprises either "No response", or "Don't know".

Would appropriate financial incentives provided by hospital management lead to your involvement in quality assurance activities?

	Yes	No	Other (a)
Senior doctors	116 (44%)	58 (22%)	92 (34%)

(a) "Other" comprises either "No response", or "Don't know".

Industry submissions

4.100 Extracts from 2 submissions received by audit from industry sources on quality improvement and assurance activities follow:

- Sustainable quality improvement is increasingly becoming the emphasis of health care organisations. Strategies such as accreditation and benchmarking are being strongly pursued by providers (funding incentives are available) but must be supported by both staff motivation and information. The latter is generally not of a good quality due to poor information systems and data collection. A report, released in 1995, prepared by the Department of Human Services Committee on Quality: *A New Framework for Quality in Victoria's Public Hospitals*, dealt in detail with hospital quality activities and strategies to improve quality of care. The Committee found that, although hospital quality activities were widespread, they were relatively ad-hoc and recommended a co-ordinated approach to maintain and improve quality of care encompassing consideration of accreditation, clinical guidelines, professional recertification, benchmarking and best practice. The Department is funding an infection control stocktake and is also providing some funds to support clinical risk management pilots.
- I am well aware of the Government's need to show that quality is maintained. Unfortunately, all that these committees have achieved is related to process rather than showing real quality improvement, particularly regarding patient care and satisfaction. The imperative is clearly to reduce waiting lists or waiting times in the emergency department which are throughput orientated, and there has been no real attempt to maintain quality.

CHANGES IN CLINICAL PROCESSES AND EFFECT ON HEALTH OUTCOMES

Overall audit comment

4.101 According to most senior doctors, pre-operative assessments have increased since the introduction of casemix funding and it was generally felt that this particular change to clinical processes has had a positive effect on health outcomes in terms of the quality of patient care. Conversely, the overwhelming majority of senior doctors indicated that the decrease in the length of the pre-operative observation period, the length of hospital stay and the post-operative recovery period have had a negative effect on quality of care.

Views of senior doctors

Have the following clinical processes increased, remained unchanged or decreased since 1 July 1993:

	Increased	No change	Decreased	Other (a)
Pre-operative assessments	120 (45%)	71 (27%)	19 (7%)	56 (21%)
Number of tests ordered	59 (22%)	97 (36%)	51 (19%)	59 (23%)
Length of pre-operative observation period	4 (1%)	34 (13%)	170 (64%)	58 (22%)
Length of stay		7 (3%)	231 (87%)	28 (10%)
Post-operative recovery period		37 (14%)	168 (63%)	61 (23%)
Level of patient dependency/severity of illness	76 (29%)	115 (43%)	12 (5%)	63 (23%)
Use of cheaper pharmaceuticals	149 (56%)	38 (14%)	4 (2%)	75 (28%)

(a) "Other" comprises either "No response" or "Don't know".

Have the following changes in clinical processes had a positive, negative or no effect on health outcomes in terms of the quality of patient care:

	Positive	No effect	Negative	Other (a)
Pre-operative assessments	109 (41%)	67 (25%)	25 (9%)	65 (25%)
Number of tests ordered	19 (7%)	160 (60%)	18 (7%)	69 (26%)
Length of pre-operative observation period	34 (13%)	99 (37%)	61 (23%)	72 (27%)
Length of stay	33 (12%)	54 (20%)	132 (50%)	47 (18%)
Post-operative recovery period	25 (9%)	69 (26%)	97 (37%)	75 (28%)
Level of patient dependency/severity of illness	4 (1%)	125 (47%)	60 (23%)	77 (29%)
Use of cheaper pharmaceuticals	13 (5%)	138 (52%)	29 (11%)	86 (32%)

(a) "Other" comprises either "No response" or "Don't know".

CAPACITY OF PROFESSIONAL BODIES TO INFLUENCE QUALITY OF CARE

Overall audit comment

4.102 A marginally higher proportion of senior doctors believed that professional bodies have an effective capacity to influence quality of patient care in hospitals.

Views of senior doctors

Do you believe that professional bodies (e.g. Medical Board, professional associations/colleges) have an effective capacity to influence quality of patient care in hospitals?

	Yes	No	No response
Senior doctors	151 (57%)	106 (40%)	9 (3%)

4.103 Various comments received from senior doctors to the audit survey included:

- All colleges and professional bodies have set standards of care which they promulgate among their members. Quality improvement activities are encouraged while ongoing education and peer review are sponsored. Re-credentialling processes are undertaken.
- This is improving. Professional bodies have supported introduction of clinical indicators by the Australian Council on Healthcare Standards and many indicators are in place. Professional bodies also encourage members to collect more data, teach junior members the importance of quality improvement and make it an important component of recertification.
- Quality of patient care in hospitals is now almost entirely driven by budget and efficiency constraints over which professional bodies have no influence. If standards declined disastrously, I think they would speak out publicly and would probably be ignored or ridiculed.
- Quality of care depends on a culture within hospitals and departments.
- Patient policy is increasingly being determined by non-medical or non-nursing managers. They have little understanding of the complexity of medical practice and are more driven by budgets than professional medical concern.
- The health service is driven by economic factors. Professional bodies act on ethical standards and in the primary interests of the patients. The health service and professional bodies appear mutually exclusive in their goals.
- These bodies have an influence on medical staff, but I see little evidence of their effect on management.
- Quality of patient care in hospitals today is governed by money, not by beliefs of professional associations.
- While nominally they are the arbiters of standards of care, effectively they are paper tigers.
- Colleges have very limited capacity to influence work in hospitals. They have a broad training mandate and not much else. Medical boards deal with only the most severe and extreme malpractice issues.

CONTINUITY OF CARE

Overall audit comment

4.104 Significantly higher proportions of charge nurses than senior doctors and allied health professionals believe that the links between their hospital and community support services are either strong or adequate compared with those who regard the links to be weak. Senior clinicians in the main do not believe that any risks associated with early discharge have been adequately safeguarded by initiatives to improve home nursing care.

Views of clinicians

Given the changes which have occurred under casemix funding, do you believe that the links between your hospital and community support services are strong, adequate or weakened since 1 July 1993

	Strong	*Adequate*	*Weakened*	*Other (a)*
Senior doctors	23 (9%)	97 (36%)	97 (36%)	49 (19%)
Charge nurses	60 (20%)	141 (46%)	73 (24%)	31 (10%)
Allied health professionals	20 (13%)	55 (36%)	51 (33%)	28 (18%)

(a) "Other" comprises either "No response" or "Don't know".

Do you believe that any risks associated with early discharge have been adequately safeguarded by initiatives to improve home nursing care?

	Yes	*No*	*Other (a)*
Senior doctors	39 (15%)	152 (57%)	75 (28%)
Charge nurses	86 (28%)	141 (46%)	78 (26%)
Allied health professionals	22 (14%)	76 (49%)	56 (37%)

(a) "Other" comprises either "No response" or "Don't know".

4.105 Various comments received from senior clinicians in response to the audit survey follow:

Senior doctors

- The initiative is a positive response but community services need greater funding to assist in achieving looking after patients at home.
- Improvements in home nursing are now coming on the scene, but have been missing over the past 5 years.
- The home nursing care is highly motivated and good, but nurses cannot possibly have time to oversee unstable medical conditions in the home.
- Home and community supports have not maintained pace of expansion to cope with the additional people.
- There is often inaccurate information transferred to the carers outside the hospital. This is usually left to interns and residents who are very inexperienced in this area.
- There are some complications that will occur independently of the availability of home nursing care, particularly if the patient carries an incorrect diagnosis or treatment as a consequence of poor quality of care.
- There have definitely been attempts to address the issue but I have had personal involvement in cases where early and inappropriate discharge has occurred without adequate home nursing follow-up.
- Home nursing care provides limited time care. Hospital care covers (or should cover) 24 hours a day care. Sudden deterioration is not well covered by home nursing care.

- Some risks can develop into sudden problems requiring immediate inpatient interventions.
- Risk shifting mirrors cost shifting. There are now home support services in my area. You just hope it works out!
- Often Home Care does not possess skills to identify problems early.
- Patient loads on district nursing services usually means a week's delay before service can be delivered.
- Frequent calls are received from relatives, district nursing staff and general practitioners to rectify matters that would have been addressed within the hospital.
- Community nursing is fragmented and community services in general need thorough reform and evaluation before we can really depend on them. Early discharge has come upon us before this community-based reform and is thus somewhat premature.
- Cancer patients require specialised nursing following discharge. This is provided by various services. However, these are not all co-ordinated from the hospital so effectiveness is dependent on the communication with third parties. These systems can easily break down with complex patients.

Charge nurses

- General initiatives have improved home nursing care but a post-acute care service is still required. The majority of care is provided by family members who require greater support.
- Not enough community support. This concept is based on the premise that there is a carer at home which is not so. Many women are carers themselves as well as being the patient. Many people and families all work and are not able to be home.
- Generally, home nursing has not received adequate funding to pick up the extra work generated by earlier discharge. The community services generally have not been adequately funded.
- The strict criteria for admission to the Hospital in the Home program means that most do not qualify.
- Home nursing care is not available to all patients. Services provided as part of the Hospital in the Home program is limited by radius from the hospital, e.g. patients outside metropolitan Melbourne are disadvantaged.
- Medical staff are reluctant to use or be part of the Hospital in the Home service. The hospital cannot get a general practitioner to facilitate the service, therefore the safeguard fails.
- If adequate initiatives had been put in place to safeguard the patient after early discharge, we would not have had an increase in readmission rates. We send patients home before it is ideal, hoping that the support we put in place will prevent readmission, but it is not always enough.
- Patients are discharged early and often solely rely on the Royal District Nursing Service, which can take up to 5 days before a visit.

- I am not aware of any studies relating to the current quality of home care and impact on carers.
- With financial cutbacks in community services, i.e. home help, early discharge at times compounds problems for families in distress, both emotionally and financially. The lower socio-economic group becomes further disadvantaged.
- Discharge planning has improved and made us all more aware of planning ahead better. However, all too often, elderly patients are discharged with services organised but you know that if that patient had 2 more days their recovery and their worry would be much less harsh.

Allied health professionals

- As the principal person putting together many discharge plans, I am aware that community services are not ideal and the hospital does not have adequate resources to put in optimum discharge plans.
- I have seen no evidence of the expansion of home nursing services to accommodate the needs of early discharge.
- While the Hospital in the Home program has been developed, it is provided to only a small number of patients on discharge. Most patients do not receive care and cuts to local government have decreased access to community support sources.
- At present, the Royal District Nursing Service is completely blocked and is not taking further referrals. Home help and meals-on-wheels access is limited and linkages only available for very frail aged.
- Early discharge must be supported with extensive home nursing review. Currently, increased demand cannot be met.
- A better answer could be “some of the time.” Having worked previously in a community setting in metropolitan Melbourne, I was often picking up the problems for parents and carers which arose through too early discharge in the early days of casemix and cost cutting. I saw many readmissions which would not have occurred with 1 or 2 more days in hospital. Generally, it costs more in the long run.

SUPPLY OF DOCTORS IN RURAL HOSPITALS

Overall audit comment

4.106 Most doctors who considered that they had sufficient knowledge to express a view felt that the shortage of doctors for rural hospitals impacted on the level of access to acute hospital services in rural Victoria.

4.107 Following detailed analysis of survey results, it was not surprising to find that 86 per cent of senior doctors in rural hospitals believe that shortages in the supply of doctors impacted on access to acute hospital services in rural Victoria compared with 35 per cent of all senior doctors in the metropolitan area who share this view. In addition, more than 90 per cent of all doctors who could not provide a response are located in the metropolitan area.

4.108 Various measures have been taken by the Department over the years to address the issue of payments made to medical practitioners in rural hospitals. Additional funding was provided in 1996-97 to assist rural hospitals in attracting and retaining specialists.

Views of senior doctors

In your opinion has the issue of any shortages in the supply of doctors for rural hospitals impacted upon the level of access to acute hospital services in rural Victoria?

	Yes	*No*	*Other (a)*
Senior doctors	114 (43%)	20 (8%)	132 (49%)

(a) "Other" comprises either "No response" or "Don't know".

4.109 Various comments received from senior doctors in response to the audit survey follow:

- The Commonwealth/universities/State Government initiatives for departments of rural health will help. The recommendations of the Ministerial council on medical workplace may also help. My university has increased places for rural disadvantaged students.
- Compulsory rotation to country areas as part of general practice training and accreditation should occur.
- Surgical specialities should also rotate to country base hospitals, e.g. ophthalmology.
- Reasons for unwillingness to serve in rural locations include: lack of intellectual critical mass and peer support (try including 1 day/week or fortnight at a relevant city facility and travel allowance as part of employment package); lack of career opportunities for spouses (try arranging a package that will cover both); lack of cover for holidays (try always employing specialists in pairs); lack of pay incentives (try increasing locum rates of pay).
- Probably all medical graduates should have to serve in country areas before doing specialist training.
- Overseas ongoing recruitment would assist.
- Positive discrimination to students coming from rural areas on the expectation that they will return to these areas where they have social contacts and supports could be considered.

- Younger doctors require financial support when at the end of a rural rotation (say 5 years) they return to the city. They also need assurance that their city career prospects will be preserved should they want to return to city life.
- Link major rural hospital to metropolitan hospital for provision of key specialist services, e.g. anaesthetics and geriatrics.

Public Medical Payments to rural hospitals

Impact of fee for service arrangements on quality

4.110 The casemix payment system includes a Public Medical Payment to pay for medical services provided to public patients. The same rate of pay applies whether the services are supplied in small rural hospitals or in large metropolitan network hospitals. The Public Medical Payment, however, disadvantages small rural and large regional hospitals because they pay far higher "fee-for-service" rates for the same medical services. These services are costed at much lower rates in the Department's cost-weight studies because the study sample mainly includes those larger metropolitan hospitals which employ medical staff on a sessional basis or fee-for-service general practitioners.

4.111 In 1994-95, the then Minister for Health made a policy decision to encourage rural hospitals to re-negotiate or to enter into employment agreements with medical practitioners at lower rates. As it is now several years since this initiative was introduced, the Department needs to assess whether the initiative has been effective in reducing the cost of medical services for rural hospitals. The Department should also investigate whether the payment of doctors under the fee for service arrangement resulting in fewer resources available for quality related activities has had an impact on quality of care.

4.112 The 1996-97 policy included a $5 million Rural Hospitals Core Services Grant to help rural hospitals attract and retain specialists. The grant is subject to assessments of submissions to the Department based on specific criteria per specialty.

RESOURCING AND WORKLOAD ISSUES

Overall audit comment

4. 113 According to one-third of networks and hospitals, overall staff turnover and losses had significantly increased in their hospital(s) since the introduction of casemix funding. However, in the context of losses of experienced staff, all networks and around 7 out of every 10 hospitals do not hold the view that the increased responsibilities and workloads resulting from casemix funding and budget cuts have contributed towards a substantial loss of experienced nursing and medical staff from their hospital(s).

4. 114 In relation to endeavouring to ascertain the impact of the Government's reforms on staff morale in the acute health sector, one-third of networks and 85 per cent of hospitals stated that staff morale had not improved in their hospital(s) since the introduction of casemix funding and budget cuts. Inquiries as to whether unplanned staff absenteeism had significantly increased since 1 July 1993 in hospitals proved to be inconclusive with half the networks and hospitals disagreeing with this proposition

4.115 Around 8 out of every 10 senior clinicians claimed that staff resource levels since the introduction of casemix funding have impacted on the quality of patient care. Areas affected range from clinical areas to hotel type services. Similar numbers also conveyed an increase in workload.

4.116 Very high numbers of senior clinicians reported that there has been a substantial increase in workplace stress (between 70 and 80 per cent) and a substantial decline in staff morale (between 50 and 70 per cent).

4.117 Around three-quarters of clinicians indicated that some of the work place related factors, specified by audit in the survey, had led to a deterioration in quality of care, the most commonly mentioned were the increase in work place stress and the decline in staff morale.

Overall staff turnover/losses

Views of the Department, networks and hospitals

Has the Department assessed the impact of increased workloads on staff turnover in public hospitals since the introduction of casemix funding and micro-economic reforms in July 1993?	Yes No	✓

4.118 The Department advised that "an assessment of staff numbers has shown that the ratio of staff to patients reduced in 1993-94 and 1994-95, but for some categories has increased since."

Please indicate whether you agree or disagree with the following statement:

	Agree	*Disagree*	*Other (a)*
Overall staff turnover/losses have significantly increased since 1 July 1993 in your hospital(s) -			
Networks	2 (33%)	2 (33%)	2 (34%)
Metropolitan hospitals	7 (54%)	3 (23%)	3 (23%)
Rural hospitals	13 (28%)	27 (57%)	7 (15%)

(a) "Other" comprises either "No response", "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Substantial losses of nursing and medical staff

Views of networks and hospitals

Do you agree or disagree with the following statements:			
	Agree	*Disagree*	*Other (a)*
"The increased responsibilities and workloads under current reforms (i.e. casemix funding and budget cuts) have contributed towards a substantial loss of experienced nursing staff from your hospital(s)." -			
Networks		6 (100%)	
Metropolitan hospitals	2 (15%)	8 (62%)	3 (23%)
Rural hospitals	12 (26%)	33 (70%)	2 (4%)
"The increased responsibilities and workloads under current reforms (i.e. casemix funding and budget cuts) have contributed towards a substantial loss of experienced medical staff from your hospital(s)." -			
Networks		6 (100%)	
Metropolitan hospitals	2 (15%)	9 (69%)	2 (16%)
Rural hospitals	4 (9%)	35 (74%)	8 (17%)

(a) "Other" comprises either "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Staff morale in hospitals

Views of networks and hospitals

Do you agree or disagree with the following statement:			
	Agree	*Disagree*	*Other (a)*
"Staff morale has improved in your hospital(s) since the introduction of casemix funding and budget cuts" -			
Networks		2 (33%)	4 (67%)
Metropolitan hospitals		8 (62%)	5 (38%)
Rural hospitals	2 (4%)	43 (92%)	2 (4%)

(a) "Other" comprises either "No response", "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Unplanned staff absenteeism

Views of networks and hospitals

Do you agree or disagree with the following statement:			
	Agree	*Disagree*	*Other (a)*
"Unplanned staff absenteeism has significantly increased since 1 July 1993 in your hospital(s)." -			
Networks		3 (50%)	3 (50%)
Metropolitan hospitals	4 (31%)	4 (31%)	5 (38%)
Rural hospitals	16 (34%)	25 (53%)	6 (13%)

(a) "Other" comprises either "No response", "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Impact of staff resource levels on quality

Views of clinicians

Have staff resource levels since 1 July 1993 impacted on the quality of patient care?

	Yes	*No*	*Other (a)*
Senior doctors	201 (76%)	39 (15%)	26 (9%)
Charge nurses	269 (88%)	28 (9%)	8 (3%)
Allied health professionals	121 (79%)	20 (13%)	13 (8%)

(a) "Other" comprises either "No response" or "Don't know".

4.119 Comments received from senior clinicians in response to the audit survey in relation to staffing areas most affected follow:

Senior doctors

- Not enough physicians in my departments to handle the workload.
- There are no experienced medical staff available in the hospital at night.
- Well-trained senior nursing staff.
- Paramedical (including social work, occupation therapy and physiotherapy).
- Cleaning staff and catering.

Charge nurses

- Numbers of staff across-the-board have been cut which include nursing, allied health, hotel services as well as community-based support services.
- Clinical nursing education, clinical supervision and senior resources expertise.
- The numbers of support staff have reduced, e.g. staff development, research and education. These staff provide enormous support to clinical staff to free them to do their work.
- Very hard to get social work involvement for patients. Often there is a 3 to 4 day wait.
- Diminished ancillary paramedical services, e.g. access to physiotherapy, dietetic and social work.
- Enormous amounts of unacknowledged, unrecorded overtime is worked.

Allied health professionals

- Nursing, medical, food services, cleaning and all allied health.
- Staffing levels in dietetics, speech pathology, physiotherapy, occupational therapy, audiology and outpatient (community) areas have slowly been reduced or redirected (also less nursing and support staff).

4.120 Comments received from senior clinicians in response to the audit survey in relation to the impact of the changes in staff levels on quality of care follow:

Senior doctors

- Reductions in staff numbers have severely increased workloads for doctors and nurses, heightening stress and fatigue. This undermines concentration, decision-making and attention to individual patients. Reduction in availability of support services (e.g. physiotherapy, occupational therapy, speech pathology and social workers) leads to sub-optional therapeutic outcomes for patients.
- Nursing staff in tertiary institutions come from pools and have no expertise in particular specialty areas. Multi-skilling has led to acceptance of the lowest common denominator of knowledge and skill as being acceptable.
- It is important to understand that while junior staff levels may be relatively stable, their workload has increased significantly and made worse still by reduced working hours. Many hospitals are refusing or unable to pay the hours of overtime worked to care for patients properly. All very risky and certainly not an environment to educate and encourage the doctors of tomorrow.
- Inexperience has meant that often patients are admitted with incorrect diagnoses and inappropriate tests.
- Patients are discharged with jumbled medications and confused instructions. The aged have no assistance with meals in wards, e.g. sight-impaired patients witnessed groping for food.
- Less personalised care.
- Patients often complain that their calls for assistance go unattended for long periods.
- Resident staff have less time for ward rounds and patients wait longer to be seen.
- Discharges occur when patients are not well enough.
- More patient infections. Reduced hygiene especially clean linen. Operating skills compromised by poor equipment. Longer outpatient appointment list.
- Increased risk of adverse events occurring when patients are not adequately monitored by skilled nurses.
- Nurse/patient ratios in neonatal intensive care have contributed significantly to nosocomial infection (i.e. hospital-acquired).
- Severity of nosocomial infection has increased adverse incidents in the intensive care unit.
- Due to existing restrictions continuity of care has suffered.
- Education, information exchange and counselling time severely reduced.

Charge nurses

- Patients are more acutely ill, stay in less time, a lot to do for them in a short amount of time and less support services means, at the end of the day, care is less that one would like to provide.
- Extremely busy workloads for nursing staff means less time spent with each patient. Basics are getting done only.
- Patients now wait longer for their call bell to be answered. They also wait longer to be fed, washed, dressed and given their medication.
- The extras we were able to do for patients we can no longer do, e.g. escorting patients on discharge to their cars, having time to listen to them for a while and just doing extra little things.
- Many comfort measures for higher dependency patients are not achieved to a satisfactory standard, e.g. hygiene, mouth care and bed making. There is little time available to spend conversing with, or comforting, patients. Incontinent patients are not managed as well as they should be.
- Although the hospital has streamlined many clinical and hospital practices, everyone's job has been expanded and on top of that more is expected of staff, e.g. charge nurses now need to attend daily meetings re: bed state, what patients are able to get into which ward today - choices are made every day. They now attend special discharge meetings to try to accelerate every patient's discharge, which is fine, however, one is not therefore in a clinical ward area.
- Patients often receive the minimal care required as resources have to be prioritised. Patients often help other patients and families.
- Inexperienced junior nurses have lower clinical skills and less supervision from scarce clinical specialists. This puts stress on the few experienced staff in a ward and on the Grade 1 and 2 staff who know they need advice. Few role models available. Patients receive care that is the best which the inexperienced and less knowledgeable nurse can give.
- The skill mix is sometimes not appropriate, i.e. by the replacement of nurses on sick leave with agency nurses.
- Patients have to wait for nursing attention for periods that I regard unacceptable, often meaning they suffer pain.
- Quality is compromised, e.g. patients have to wait longer, drugs cannot always be given on time, dressings are less frequent and counselling is done less often in less time.
- Increased waiting times for specialist nurses in outpatients' clinics.
- Wards are not cleaned properly. Dust under beds and on shelves for days.
- Beds are not cleaned properly which may lead to an increase in infection rates. The reduction in laundry staff means that linen services are slow.
- "Lights out to sleep" often as late as midnight due to workload.

Allied health professionals

- Less capacity to respond to referrals quickly or to respond at all. Unmanageable workloads.
- Services provided to all patients previously are now rationed to those who are deemed to obtain the most benefit. This is done at the expense of patients who would still benefit from a service but are not judged to be "as deserving".
- Patients are rushed through the system placing both patient and staff at risk of negligence, e.g last year hand therapy had a 25 per cent increase in referrals and no increase in staff, therefore patients' appointments spaced out further resulting in poor care which, in some cases, was dangerous.
- Patients are tending to be treated as a product rather than an individual. This leads to an impersonalisation of the services.
- Patients who look as if they have personal resources are left to "sink or swim." There is no time to follow-up uncoping families whose children are at risk of abuse or neglect.

Impact of government reforms on workload of clinicians

Has the introduction of government reforms since 1 July 1993 overall resulted in an increased workload for those in your profession in the public hospital(s) that you have worked?

	Total respondents			*Yes/No*							
				Influenced by both casemix and micro-economic reforms		*Influenced by casemix funding only*		*Influenced by micro-economic reform only*		*Cannot separate effects*	
	Yes	*No*	*Other (a)*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
Senior doctors	216 (81%)	17 (6%)	30 (13%)	84	5	14		8		110	12
Charge nurses	269 (88%)	7 (2%)	27 (10%)	83	2	15		16		155	5
Allied health professionals	127 (82%)	7 (5%)	17 (13%)	44	2	10		10		63	5

(a) "Other" comprises either, "No response" or "Don't know".

Trend in various workplace factors and impact on quality

Since 1 July 1993, do you think the following factors have increased, decreased or remained the same

	Substantial increase	Marginal increase	Remained constant	Marginal decline	Substantial decline	Other (a)
Level of work place stress -						
Senior doctors	187 (70%)	51 (19%)	4 (2%)	1 (0%)	4 (2%)	19 (7%)
Charge nurses	248 (81%)	38 (12%)	5 (2%)	1 (0%)		13 (5%)
Allied health professionals	122 (79%)	22 (14%)	4 (3%)	1 (1%)		5 (3%)
Staff morale -						
Senior doctors	4 (2%)	6 (2%)	6 (2%)	44 (17%)	186 (70%)	20 (7%)
Charge nurses	24 (8%)	10 (3%)	18 (6%)	82 (27%)	160 (52%)	11(4%)
Allied health professionals	5 (3%)	6 (4%)	11 (7%)	44 (29%)	82 (53%)	6 (4%)
Staff turnover -						
Senior doctors	72 (27%)	82 (31%)	41 (15%)	22 (8%)	12 (5%)	37 (14%)
Charge nurses	66 (22%)	65 (21%)	100 (33%)	35 (11%)	19 (6%)	20 (7%)
Allied health professionals	26 (17%)	52 (34%)	34 (22%)	18 (12%)	8 (5%)	16 (10%)
Level of absenteeism among salaried medical staff -						
Senior doctors	11 (4%)	44 (17%)	134 (50%)	8 (3%)	2 (1%)	67 (25%)
Charge nurses	101 (33%)	108 (35%)	44 (14%)	14 (5%)	8 (3%)	30 (10%)
Allied health professionals	14 (9%)	47 (31%)	56 (36%)	9 (6%)	2 (1%)	26 (17%)
The level of hospital misadventures -						
Senior doctors	11 (4%)	71 (27%)	101 (38%)	5 (2%)		78 (29%)
Charge nurses	17 (6%)	95 (31%)	99 (32%)	9 (3%)	4 (1%)	81 (27%)
Allied health professionals	4 (3%)	27 (18%)	36 (23%)	3 (2%)	1 (1%)	83 (53%)
The pool of knowledge and experience of doctors -						
Senior doctors	2 (1%)	13 (5%)	102 (38%)	94 (35%)	29 (11%)	26 (10%)
Charge nurses	22 (7%)	36 (12%)	60 (20%)	77 (25%)	90 (30%)	20 (6%)
Allied health professionals	14 (9%)	23 (15%)	42 (27%)	48 (31%)	20 (13%)	7 (5%)
The risk of accidents in the workplace -						
Senior doctors	21 (8%)	88 (33%)	83 (31%)	10 (4%)	2 (1%)	62 (23%)
Charge nurses	32 (10%)	132 (43%)	79 (26%)	24 (8%)	4 (1%)	34 (12%)
Allied health professionals	7 (5%)	42 (27%)	54 (35%)	7 (5%)		44 (28%)

(a) "Other" comprises either, "No response" or "Don't know"".

4.121 According to the above table, the changes that have occurred to workplace-related factors and the proportion of clinicians who held the majority view are outlined below:

- increase in the level of workplace stress (senior doctors 89 per cent, charge nurses 93 per cent, allied health professionals 93 per cent);
- decline in staff morale (senior doctors 87 per cent, charge nurses 79 per cent, allied health professionals 82 per cent);
- increase in staff turnover (senior doctors 58 per cent, charge nurses 43 per cent, allied health professionals 51 per cent);

- increase in level of absenteeism (senior doctors 21 per cent, charge nurses 68 per cent, allied health professionals 40 per cent);
- increase in the level of hospital misadventures (senior doctors 31 per cent, charge nurses 37 per cent, allied health professionals 21 per cent);
- decline in the pool of knowledge and experience within professional group (senior doctors 46 per cent, charge nurses 55 per cent, allied health professionals 44 per cent); and
- increase in the risk of accidents in the workplace (senior doctors 41 per cent, charge nurses 53 per cent, allied health professionals 32 per cent).

Overall, do you think that any changes in the matters listed above have led to an improvement, deterioration or have had no effect on the quality of care:

	Improved greatly	*Improved marginally*	*No effect*	*Minor deterio-ration*	*Major deterio-ration*	*Other (a)*
Senior doctors	-	7 (3%)	37 (14%)	141 (53%)	59 (22%)	22 (8%)
Charge nurses	4 (1%)	25 (8%)	19 (6%)	145 (48%)	91 (30%)	21 (7%)
Allied health professionals	1 (1%)	6 (4%)	19 (12%)	90 (58%)	27 (18%)	11 (7%)

(a) "Other" comprises either "No response" or "Don't know".

4.122 As can be seen from the above table, around three-quarters of clinicians felt that there has been a deterioration in the quality of care since the introduction of casemix funding due to various factors.

Industry submission

4.123 An extract from a submission received by audit from an industry group relevant to the above issues follows:

> "Staffing level issues refer to both the reduction of the nurses on any given shift and a reduction in the number of hours worked. For example, when replacing staff on sick leave (8 hours) many hospitals are replacing staff with agency nurses for only 4 to 6 hours of the shift. This means a reduction of the hours of care per patient.
>
> "In an effort to reduce costs, hospitals accepted redundancies from senior experienced nurses and replaced them with new, inexperienced nurses. Although $17 000 is given to hospitals to support and to induct new graduates, the funds were not used for this purpose. Acquittances were not required by the Department of Human Services to determine that these specific purpose grants were utilised for the purpose intended. As a result, nurse educators were not employed to provide support and education. The responsibility for orientating and supporting the new graduates fell to the Charge Nurse.

"The Department has put no funds to researching the appropriate nursing staff levels and skill mix. Nevertheless, other countries have and the work is applicable to the Victorian casemix context. Nurses say that there is evidence to support their claims of diminishing quality but funds are utilised only for the 2 tools for evaluating quality. They are the patient satisfaction survey and re-admission.

"Nursing would like the research funds to replicate overseas research which supports staffing levels and, in particular, skill mix. Across-the-board, 23 per cent of nursing positions have disappeared since 1992. Some agencies employed first year graduates (one metropolitan hospital has 47 per cent nurses who are new graduates), who are at risk of leaving the profession due to the stresses imposed upon them. The remaining nursing staff have increased workloads, due to the increase in supervisory requirements in the absence of additional support. Diminishing ancillary staff has resulted in nurses cleaning floors and undertaking non-nursing work in an effort to maintain a semblance of a clean and safe environment."

MONITORING AND EVALUATION

Overall audit comment

4.124 The Department promotes accreditation as a major strategy for ensuring that quality of care is safeguarded. Other tools used include patient satisfaction surveys on a Statewide basis, the monitoring of unplanned readmissions (the use of this data is currently under investigation by the Department) and the implementation of an infection control survey. The Department advised audit that many hospitals will be addressing selected clinical indicators, developed by the Australian Council on Healthcare Standards' Care Evaluation Program in co-operation with Australian medical colleges, within their quality programs.

4.125 In audit opinion, although networks and hospitals have introduced numerous quality enhancement procedures and considerable work has been undertaken on the development of clinical indicators, performance information at a network and hospital level relating to quality of care needs to be evaluated by the Department on a Statewide basis. Consolidated information relating to safeguarding quality of patient care should then be reported by the Department in the same way as it does in relation to efficiency gains.

4.126 The release by the Department of the discussion paper in October 1997 titled *Acute Health Performance Indicators: Strategy for Victoria* sets out a proposed framework for the progressive development of indicators to promote quality improvement at a system-wide level.

4.127 All but one network and two-thirds of hospitals indicated that changes in patient care have been properly monitored and measured in their organisations. Monitoring and evaluation of the quality of patient care is not prevalent in rural hospitals as:

- 17 of the 19 hospitals, which advised that changes in patient care have not been properly monitored and measured, are located in rural regions;
- all 8 hospitals, which advised that they are not adequately equipped to control and monitor hospital acquired infection rates, are rural hospitals; and
- of the 26 hospitals which indicated that measurable performance indicators have not been developed for the management of clinical risk in the acute care setting, 22 are located in the rural areas.

4.128 In contrast to the views expressed by the network and the hospital Chief Executive Officers, around two-thirds of senior clinicians do not agree that changes in patient care have been properly measured and monitored in their organisations. The overwhelming majority of organisations claimed to be adequately equipped to control and monitor hospital acquired infection rates.

Views of the industry

Has the Department monitored the impact of the Government's health reforms on the level of quality of patient care?	Yes No	✓

What measuring instruments or performance indicators does the Department use to monitor and evaluate quality of patient care?

4.129 The Department indicated that it "promotes accreditation as a baseline indicator of quality. Accreditation of hospitals is used worldwide as one means of ensuring that hospitals monitor care processes and clinical care indicators. Incentive funding to facilitate accreditation has been in place in Victoria since the introduction of casemix, and accreditation by the Australian Council on Healthcare Standards or alternative organisations will become mandatory for all hospitals providing public acute care by the year 2000. Victoria was the first State to introduce these measures.

"Hospitals not accredited or declared under statutory immunity provisions under section 139 of the Health Services Act are required to have a quality assurance plan available to the Department.

"Stage 3 of the patient satisfaction survey is currently in progress across the State as an indicator of quality of care and service. The last survey in 1995 reported an overall level of satisfaction of 97 per cent. Results of this more comprehensive survey will be reported in early 1998.

"Unplanned readmissions have been monitored since the introduction of casemix as an indicator of the quality of care on the initial admission, however, its use as a quality measure is currently under review. Rates are consistently reported across the State at around 9-10 per cent.

"A comprehensive infection control survey is in progress within Victoria to identify the status of infection control policies, procedures and resources. All Victorian hospitals have been surveyed and the results will be used to inform and improve future infection control policy.

"The Australian Council on Healthcare Standards' Care Evaluation Program has developed a number of clinical indicator sets in co-operation with Australian medical colleges. The indicators are used within the Council's Evaluation and Quality Improvement Program, and many Victorian hospitals will be addressing selected indicators within their quality programs. This information is reported in aggregate by the Council. Comparative results are provided to individual hospitals but the information is not currently made available to or requested by the Department. The Council's Care Evaluation Program is very focused on indicators useful for clinicians. The needs of the health authority are at a different level for the most part".

Does the Department consider patient satisfaction surveys to be an adequate tool to monitor changes in the level of patient care?	Yes No	✓

Does the Department use the results of its patient satisfaction surveys to address any areas within public hospitals found to be in need of service improvement?	Yes No	✓

Outline any procedures introduced by the network or hospital to monitor and assess the quality of patient care.

4.130 Examples of procedures utilised in certain networks and hospitals to monitor and assess the quality of patient care are as follows:

- preparation of a quality plan;
- participation in Statewide patient satisfaction surveys;
- conduct of patient satisfaction surveys;
- accreditation by the Australian Council on Healthcare Standards;
- enrolment in the Evaluation and Quality Improvement Program;
- monitoring of Australian Council on Healthcare Standards key performance indicators for quality of patient care;
- development of clinical pathways and outcome measures;
- participation in peer review programs;
- conduct of a clinical risk management pilot (funded by the Department);
- introduction of performance measurement systems for quality and access; and
- ongoing quality assurance.

Do you agree or disagree with the following statements that apply to your hospital(s):

	Agree	Disagree	Other (a)
Changes in patient care have not been properly monitored and measured -			
Networks	1 (17%)	5 (83%)	
Metropolitan hospitals	2 (15%)	10 (77%)	1 (8%)
Rural hospitals	17 (36%)	28 (60%)	2 (4%)
Changes in patient care have not been properly monitored and measured in terms of the quality of clinical care -			
Senior doctors	177 (66%)	63 (24%)	26 (10%)
Charge nurses	179 (59%)	101 (33%)	25 (8%)
Allied health professionals	93 (60%)	36 (23%)	25 (17%)
Changes in patient care have not been properly monitored and measured in terms of the quality of supportive care -			
Senior doctors	185 (70%)	45 (17%)	36 (13%)
Charge nurses	190 (62%)	87 (29%)	28 (9%)
Allied health professionals	91 (59%)	37 (24%)	26 (17%)
The hospital(s) is adequately equipped to control and monitor hospital acquired infection rates -			
Networks	6 (100%)		
Metropolitan hospitals	10 (77%)	1 (8%)	2 (15%)
Rural hospitals	40 (85%)	7 (15%)	
Measurable performance indicators have been developed for the management of clinical risk in the acute care setting -			
Networks	5 (83%)	1 (17%)	
Metropolitan hospitals	6 (46%)	4 (31%)	3 (23%)
Rural hospitals	19 (40%)	22 (47%)	6 (13%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

In relation to the hospital(s) that you are responsible for, do you monitor the results of patient satisfaction surveys to identify areas of service improvement

	Yes	No	Other (a)
Networks	5 (83%)		1 (17%)
Metropolitan hospitals	13 (100%)		
Rural hospitals	46 (98%)	1 (2%)	

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Does your hospital conduct its own patient satisfaction surveys to identify areas in need of service improvement?

	Yes	No
Metropolitan hospitals	13 (100%)	
Rural hospitals	42 (89%)	5 (11%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

4.131 Some of the most common changes implemented by hospitals included modifications to:

- admission programs and procedures;
- physical facilities including signage to wards, noise control and car parking;
- meal times, menus and food service; and
- communication processes with patients involving information available on discharge, patients rights and responsibilities and patient awareness and education programs.

In the opinion of senior doctors, does their hospital monitor and evaluate Australian Council on Healthcare Standards clinical indicators to:

	Yes	*Sometimes (ad hoc)*	*No*	*Other (a)*
Develop additional in-house clinical indicators	61 (23%)	104 (39%)	46 (17%)	55 (21%)
Ensure clinical outcomes meet known benchmarks	99 (37%)	84 (32%)	38 (14%)	45 (17%)
Help identify areas of the facility that most warrant a focused quality study	67 (25%)	88 (33%)	51 (19%)	60 (23%)
Identify potential improvements in clinical practice	67 (25%)	108 (41%)	47 (18%)	44 (16%)
Provide ideas for new studies in clinical practice	52 (19%)	95 (36%)	69 (26%)	50 (19%)
Simply comply with data collection regulations	127 (48%)	41 (15%)	45 (17%)	53 (20%)

(a) "Other" comprises either "No response" or "Don't know".

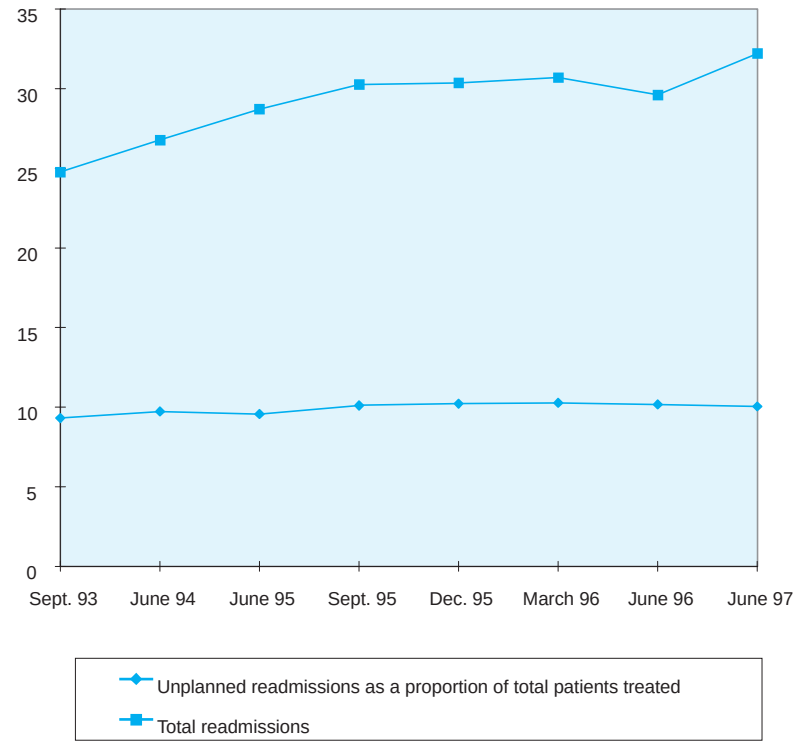
	Yes	*No*	*No response*
As a senior doctor, do you take part in any external program of review, e.g. National Incident Monitoring, statutory Commonwealth programs?	70 (26%)	186 (70%)	10 (4%)
As a senior doctor, does your involvement contribute to improving the quality of care provided in your hospital?	53 (76%)	17 (24%)	

Readmissions rates

Trends in readmission rates

4.132 The extent to which total readmissions and unplanned readmission within 28 days of initial discharge have changed in the years following the introduction of casemix funding is illustrated in Chart 4A

CHART 4A
PROPORTION OF HOSPITAL PATIENTS READMITTED
(per cent)



Source: Victorian Inpatient Minimum Database within the Department of Human Services *Hospital Services Report*, October 1995, May 1996, June 1996, October 1997.

4.133 The above chart shows that, although readmissions as a proportion of total patients treated has increased significantly (from 25 per cent in September 1993 to 32 per cent in June 1997), unplanned readmission within 28 days of initial discharge as a proportion of total patients treated has remained relatively stable at between 9 and 10 per cent.

Lack of reliability of using readmission rates as a quality indicator

4.134 The implementation of a casemix payment system carried the risk of a reduction in the quality of acute health services through the potential for under-treatment, premature discharge, inappropriate admissions and reduced access to hospitals. In recognition of these potential problems, the Government introduced a policy objective to safeguard the quality of services under casemix funding.

4.135 In contrast to the plethora of accurate information available to the Department to measure the achievement of financial objectives, there is a dearth of sufficiently reliable performance measures of the effectiveness or quality of acute health services. Most of the quality indicators either in use by the Department or planned for use are still under development or in need of further improvement. In fairness to the Department, this is a problem confronted by most other health authorities in Australia and overseas as reliable measures of quality are difficult to establish.

4.136 To illustrate this point, the Department selected "Readmission within 28 days" as a system-wide performance indicator to monitor the impact of casemix funding on the quality of acute health. In audit opinion, this indicator is unreliable, as:

- readmissions within 28 days to other hospitals understate the true position as they are not detected nor recorded as readmissions;
- the position can also be overstated as:
  - although unplanned, there are categories of patients where readmission would not be surprising given factors such as the patient's age and nature of the condition, e.g. such as an elderly patient with a heart-related illness;
  - readmissions within 28 days for medical conditions unrelated to the original treatment or surgical procedure are included in the data collected by hospitals; and
- hospital management have been expressed concerns over the accuracy of the recording of readmission details.

4.137 The Department's use of readmissions data in its quarterly *Hospital Services Report* shows little change in the rate of unplanned hospital readmissions over the past 5 years. This static rate, in audit opinion, has the potential to mislead readers of the report. For example, a recent study of unplanned readmission data titled *Changes in bed resources and admission patterns in acute public hospitals in Victoria, 1987 to 1995*, by MacIntyre, C.R., Brook, C.W., Chandraraj, E., and Plant, A.J. which excluded readmissions for chronic and unrelated conditions, revealed a 21 per cent increase over the past 4 years of casemix funding.

4.138 Avoidable readmissions are referred to by health professionals as the "revolving door syndrome" and represent an inefficient treatment process. Reduction in the number of avoidable readmissions in the current system now represents a significant source of potential efficiency gains for networks and hospitals. Beds and medical resources no longer needed for readmitted patients will produce productivity gains, improve access and achieve real increases in throughput.

4.139 The Department has relied heavily upon the clinical competencies and standards of the medical fraternity to uphold the quality standards that prevailed at the time of introducing casemix funding and major micro-economic reforms in the form of budget cuts and productivity gains. The assumption that the medical profession will maintain adequate standards of care under casemix funding with fewer resources may not be able to be sustained in the future. The margin for error during the process of care, for instance, has increased with the far higher throughput volumes, increased patient complexity and greater work pressures now extant in busy teaching hospitals.

4.140 Audit was advised by the Department that the use of readmission data is currently under investigation. If unplanned readmission rates are to be used as an indicator of quality of care, the indicators would need to be refined using a similar methodology to the above study. The Department could then, as part of a quality improvement initiative, establish progressive performance targets for avoidable readmissions and appropriately reward networks and hospitals for the achievement of lower readmission rates. The Department should also introduce a Common Unique Patient Identification into the Victorian Inpatient Minimum Dataset to improve the accuracy of readmission data i.e. to account for patients re-admitted to other networks or hospitals.

Industry submissions

4.141 Extracts of submissions from industry groups received by audit in relation to monitoring and evaluation of patient care follows:

- The *Report on Government Service Provision 1997* prepared by the Steering Committee for the Review of Commonwealth/State Service Provision identifies 4 classes of quality indicators:
  - Hospital Misadventure Indicators
    - Unplanned re-admission rates
    - Unplanned return to theatre
    - Hospital acquired reinfection rates
  - Patient Satisfaction
    - Patient satisfaction surveys (Victoria is doing much work in this area)
  - Process Indicators
    - Percentage of beds with Australian Council on Healthcare Standards accreditation
    - Other capital quality indicators (such as condition of capital)
  - Hospital Service Outcomes
    - None-indicators to be developed

  Of these, the Steering Committee was disappointed to find that the only nationally comparable data available was the percentage of beds accredited by the Australian Council on Healthcare Standards. It noted 3 major projects had been commissioned by the National Hospital Outcomes Program of the Commonwealth Department of Health and Family Services to help rectify the situation.

  One of the key indicators of quality is the readmission rate. Although longitudinal data is sketchy, rates have been monitored for some time in Victoria and are now more stable, at about 10 per cent. It should be noted that estimates of readmission rates vary widely and that there is some evidence that readmission rates in Australian hospitals generally, including those which are not funded on a casemix basis, are higher than might be thought desirable. Hospitals in Australia are, in fact, now encouraged to collect and report on clinical indicators every 6 months to facilitate the development of a database to be used for national benchmarking purposes.

Other quality measures include indicators such as staff opinion surveys, levels of absenteeism, rate of staff accidents and staff turnover. There is some suggestion that stress on hospital staff, particularly nurses and young doctors, has increased in recent years. Despite an apparent substantial surplus of nurses in metropolitan Melbourne, the public sector is having increasing difficulty recruiting medical and nursing staff.

- The absence of adequate and consistent Statewide data prior to the introduction of casemix precludes, to any meaningful extent, the rational analysis of the effect on quality of care. Consequently, the usefulness of the patient satisfaction survey and the unplanned readmission indicator, notwithstanding their inherent limitations, are restricted by the absence of a pre-casemix baseline.
- To define quality in health care is a challenge but drawing on the contemporary literature it can be defined as "excellence in care which results in meeting the objectives for the provision of care, producing patient satisfaction and being matched by contemporary health care knowledge and experience".

  In a Commonwealth study it was determined that the following indicators needed to be addressed to ensure quality: access, efficiency, safety, effectiveness, acceptability, continuity, technical proficiency and appropriateness.

  Patient satisfaction surveys were intended as a legitimate patient perspective, not as a political tool to give a perspective of efficacy of government health policy. A focus on the aggregate instead of individuals' satisfaction with care masks the balancing role of public service which has to meet the needs of the community. This is not the same as meeting the needs of the individual. The amount of funding given by the Department of Human Services to hospitals to undertake patient satisfaction surveys ... could be better utilised by hospitals to implement ongoing internal evaluations of service provision which can be addressed at an agency level. These true surveys could then be made available to the community.

FACTORS WHICH HAVE HAD AN IMPACT ON QUALITY OF CARE

Overall audit comment

4.142 In terms of positive impacts on quality of care, responses from charge nurses identified a variety of factors such as increased accountability, the accreditation process and the introduction of clinical pathways and post-acute care facilitation units. Many of the factors offered by senior clinicians, which have adversely impacted on quality, related to economic considerations that were not considered to be consistent with the promotion of quality of patient care.

Views of clinicians

4.143 In addition to specific questions on the quality of care, the audit survey also asked senior clinicians to identify any other factors they considered had an impact either positive or negative. A cross section of these comments are listed below:

Factors that have had a positive impact on quality of care

Charge nurses

- There has been a requirement for quality reassessment and change. This has meant organisations needed to study every facet of practice and adopt it safely, which has never happened in the medical field. Doctors' roles are changing and everyone needs to work as a team, rather than individual practitioners.
- The idea of casemix having measures for accountability is a positive step. With casemix has come clinical pathways. Pre-admission clinics and post-discharge planning where the patient is kept well informed are also positive features.
- The accreditation process will definitely improve practice in my organisation. It will also ensure accountability of practice within units and departments. Measured outcomes should increase the efficiency of units and departments.
- In this hospital, staff have been employed in each ward and department to assist in the delivery of patient services. Those people take pride in their work and are part of the ward team. Cleanliness has improved and there is a means to assist nurses as required.
- Benchmarking leads to greater awareness. Analysis of readmission data enables development of strategies.
- Nursing training being a university course has greatly improved the knowledge base of newer staff, but initially graduates lack experience and ability to connect knowledge to an actual problem. This situation has a negative impact on quality of care. However, with experience this should improve.
- The post-acute care facilitation unit is excellent for patient care and follow-up in the community. This service needs to be extended to all of Victoria.

Allied health professionals

- Some positives have come out of new structure. There is more support for allied health and opportunities for pooling of resources and knowledge.

Factors that have had a negative impact on quality of care

Doctors

- Emphasis on financial incentives has led to a focus on financial outcomes.
- A public health system cannot be run on economic criteria.
- The only solution is the realisation that health care is expensive if it is to be of quality.
- There is a need for greater recognition of achievement, with less financial penalties on failure to achieve. Hospitals which show a significant effort to achieve targets should not be financially penalised. Financial incentives are not the prime reason for achieving targets for hospitals. These achievements are a direct result of workplace ethics and a true desire to produce patient focused outcomes. Recognition of these achievements publicly will result in a competitive environment to achieve, rather than a financially driven environment where achievement is measured against the dollar.

- The philosophical concept that public hospitals should be conducted as a business has had a negative impact on quality of care. In service areas especially where frail, elderly, chronically ill or vulnerable people are involved, compassion and humanity will inevitably lead to inefficiency. Far too much time is spent at meetings discussing processes and procedures, data collection and budget matters which takes away resource time from direct patient contact.
- There is a need to reassess casemix for patients who need longer stays, e.g. for the provision of palliative care, chronic illness and care for the socially disadvantaged. Need increased funding for preventative programs to reduce the number of patients in the above groups in the future.
- The dominance of the health economists in determining health care policies and the failure to expend sufficient funds on provision of data for formal quality activities is a negative factor.
- A panel of active clinicians (not academics and administrators) may be able to better balance the cost weights allocated.
- The hospital workplace has become “industrial” rather than professional. The result of this is that doctors are finding themselves answerable to budget considerations, not medical or morale ones.
- The abolition of the hospital boards of management has had a huge impact. When you take away the governance at the local level of a body of interested and committed people doing their best for their local hospital and give it to a central bureaucracy situated miles away, common sense dictates the answer is negative.
- Gradual decline in the involvement of general practitioners in hospital-based medicine has had a negative impact. The person with often the best knowledge of the patient’s medical problem (and social situation) is excluded from the management team.
- Difficulty in recruiting young doctors into rural towns poses a risk by placing people in the position of having to travel long distances for medical help.
- Decline in private health insurance patients has increased pressures on the public system.
- Fear culture preventing public discussion of budget cuts.

Charge nurses

- Nurse/patient ratios, complexity of care, inexperienced staff, time spent working on figures not on patient care, more patients dependent on the public system and the reduction of those with private insurance have had a negative impact.
- The aging population must be taken into account in casemix. An elderly person living in their own unit with no family support cannot go straight home in the same way as someone who has family support. The elderly person usually has other medical problems that add to the fact that they need more care in hospital.
- An increase in drug addiction and the increasing poverty in the community have had a negative impact.
- As hospitals are run by financial managers rather than clinicians, there needs to be a mix. Patients do not fit into nice little dollar boxes.

- The Chief Executive Officer and Board clearly do not realise the conditions our patients live and die in, and the environment staff work in. They need to work in a ward to fully appreciate what happens in their organisation.
- Wards are mixing medical and surgical patients which makes it more difficult to manage. Inappropriate admissions take place to inappropriate areas, e.g. small children to adult wards.
- Since the introduction of casemix, adult patients have been a constant feature on the paediatric unit. This can be inappropriate at times depending on the patient mix, not only for the children but also the adults involved. This is a specialist-built paediatric unit and adult patients do not fit with our paediatric philosophy. Many patients have complained about their children having to share with adults.
- Frequently nurses have to be employed in areas they are unfamiliar with.
- Shortage of specialists in country, i.e. ear, nose and throat and paediatrics causes more stress.
- Lack of community information.
- Privatisation of health care reduces the quality of care as this is profit-driven.

Allied health professionals

- A more co-operative and inter-disciplinary approach is more evident now than in past years which is beneficial to patients and to the administration of this hospital. However, the decrease in staff morale and employment insecurity must affect patient care. The loss of experienced and committed staff who become disillusioned with the public health system has had an impact on the quality of professional and para-professional personnel within the health system.
- The increased demand for public hospital services due to an increase in the aged population and decreased number of people with private health insurance has had a negative effect on the quality of care.
- Multi-skilling has meant a general reduction in skill level of therapists. There is no incentive to become specialised despite the fact that surgery is becoming more specialised.
- Changes particularly in regional medical practices, e.g. 24 hour bulk billing clinics, result in more patients transferred to hospital for their acute management. Many patients should never be admitted to hospital if local medical and support services networks are adequate.
- The complete absence of a radiology equipment replacement schedule is a time bomb for Victoria.
- Public hospitals are made to feel like a drain on the public purse. The reality is they contain dedicated and hard working staff in the main. The sense of being greedy has led to reduced staff morale.
- The 2 levels of government funding (Commonwealth and State) for pharmaceuticals to ambulatory care patients have a negative impact on quality of care. This creates inequitable access of high cost pharmaceuticals by patients.

Part 5

Health outcomes

OVERVIEW

5.1 In examining whether suitable procedures have been developed to assess and monitor health outcomes (i.e. whether people recover or improve their health status as a result of treatment), it became apparent that this task is most complex and in its infancy throughout the world. It is also difficult to directly link broad health outcomes such as an increase in life expectancy with acute health funding and casemix as these outcomes can be affected by a variety of other factors such as socio-economic and lifestyle concerns.

5.2 In Victoria, developmental work is occurring on this particular front. Based on the views of the acute health industry, as organisations are adopting different approaches to measuring performance and outcomes, which was reported by the Department's Committee on Quality in November 1995, there is a continuing need for a systematic approach to monitoring the level of quality in Victorian hospitals and health outcomes.

5.3 Due to the absence of outcome measures and the difficulty in attributing changes in health outcomes with acute health interventions, it was not possible for audit to draw any conclusion on health outcomes.

BACKGROUND

5.4 One particular submission from an industry group included a good description of the concept of health outcomes. This extract is presented below as explanatory information:

"The Commonwealth provides a working definition of 'outcome' as 'the significant result or end product of care delivery, such as improved survival, functional health status or quality of life'. According to the Australian Health Ministers' Advisory Council, a health outcome can be defined as a change in the health of an individual, or group of people or population, which is attributable to an intervention or series of interventions.

" 'Outcome' encompasses not only the output, but also the short and long-term benefits of that output, and hence the overall value of the treatment to the purchaser. The 'output', say a hip replacement, is but one component of the outcome, which is a hip replacement in an elderly man, that will leave him pain free and able to live independently for the next 10 years. The quality of care is the principal additional factor that distinguishes outcome from output. The costs of a failed hip replacement accrue to the patient, his family and purchasers of acute and aged care, but are not necessarily immediately attributable to the original treatment or output. Therefore, for true cost attribution it is necessary to compare outcomes, rather than outputs, so that the costs associated with low quality care are not merely shifted from one sector to another.

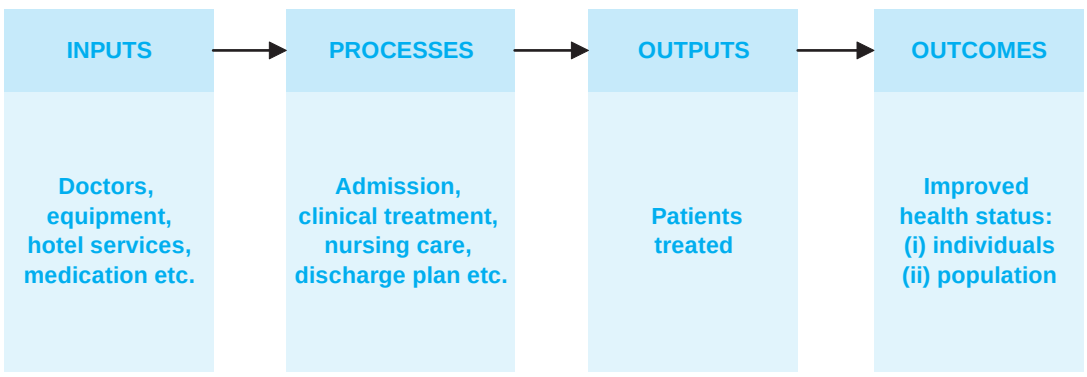
"Outcomes more appropriately reflect the complexity of patient illness and the diversity and quality of treatment undertaken in a range of settings. While comparisons of outcomes are necessarily more complex than just outputs, they are a truer reflection of all the costs involved, which in fact goes to the heart of competitive neutrality.

"The community needs information about health outcomes so that they may make informed choices.

"Ongoing research into the attainment of outcomes and quality is crucial in ensuring that regardless of environment the resources will remain available from the acute casemix funds to make sure the health outcome is attained".

5.5 Chart 5A illustrates the relationship between the inputs, processes, outputs and outcomes of the health services industry.

CHART 5A
ACUTE HEALTH SERVICE DELIVERY



OVERALL EFFECT OF GOVERNMENT REFORMS ON HEALTH OUTCOMES

Overall audit comment

5.6 No response was provided by the Department of Human Services to this segment of the audit. According to networks and hospitals, the government reforms have overall contributed to an improvement in health outcomes. However, there are 14 hospitals, most of which are located in rural regions, where in the opinion of the hospital Chief Executive Officers health outcomes have deteriorated.

Views of networks and hospitals

What has been the overall effect of the government reforms on health outcomes for the hospital(s) that you are responsible for?

	Total respondents			Improved/Deteriorated							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Improved	Deteriorated	Other (a)	Imp	Det	Imp	Det	Imp	Det	Imp	Det
Networks (since 1 August 1995)	3 (50%)		3 (50%)							3	
Hospitals (since 1 July 1993)	21 (35%)	14 (23%)	25 (42%)	2	4	2	1	4	3	13	6

(a) "Other" refers to "No response", "No effect" or "Do not know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

MONITORING OF HEALTH OUTCOMES TO ASSESS CHANGES

Overall audit comment

5.7 According to the Department, effectiveness of care relates to whether the standard of care provided is deemed appropriate for the patient's illness, whereas outcomes are about whether people recover or improve their health status as a result of treatment. The Department advised that outcome measurement is in its infancy world-wide. Although 2 networks and half the hospitals indicated that health outcomes have been adequately monitored to assess changes, two-thirds of networks and almost half of hospitals indicated that the current Hospital Wide Indicators for health outcomes are too broad to detect significant trends in health outcomes for particular patient groups.

5.8 The Department has not developed a strong monitoring and evaluative role in terms of improving the accountability of health service providers for the delivery of acute health services that lead to improved health outcomes. Comments contained in Part 4 of this Report have suggested that the Department should monitor patient outcomes on a specific treatment or disease basis following the application of clinical pathways by hospitals. Audit supports the Department's intention to conduct functional health status surveys to determine whether the outcomes of the acute health services which it purchases have improved or declined.

5.9 There are a number of other instruments available to measure health outcomes that are both valid and useful as opposed to patient satisfaction surveys which have been shown to produce limited quality indicators. The Department should pilot the use of Quality of Life/Outcome measures, e.g. functional health status surveys in order to establish baselines from which changes in health outcomes can be measured.

Views of the Department, networks and hospitals

Does the Department have a role in monitoring health outcomes? If so, what strategies does the Department employ to monitor the effectiveness of the acute health services that it purchases from public hospitals in the terms of health outcomes?
What have been the major trends and issues identified and what corrective action, if any, has needed to be taken by the Department?

5.10 According to the Department "although the subject of intense interest, outcomes measurement is in its infancy world-wide. There are few agreed approaches; data to measure individual or population health status and changes over time are poor; there is indeed no comprehensive information system across different health service sectors; and measurement of outcomes may extend over years or even a life-time - making its immediate decision-making utility very low.

"For these reasons, most attention world-wide is placed on quality - particularly where standards are developed and measurable; and on effectiveness of care - measurements and processes for which are not fully developed and sometimes resisted by clinicians.

"The Department, particularly through the Public Health Division, does produce biennial reports of the health status of Victorians and the utilisation of health services. Health status in Victoria continues to improve. Utilisation data is instructive in terms of resource allocation, but not in effectiveness of care. Effectiveness is not the same as outcomes in any case. Effectiveness is about whether the care provided is deemed appropriate for the patient's illness, as judged by some form of objective evidence. It is also about the standard of that care. Outcomes are about whether people recover or improve their health status as a result of treatment.

"The Department has a limited capacity to monitor health 'outcomes' through its comprehensive database, the Victorian Inpatient Minimum Dataset which contains hospital morbidity data for all patients admitted to Victorian public hospitals, the data being derived through mandatory reporting by hospitals based on information recorded in patient records.

"It is proposed that the database will be the primary source to derive information for reporting of performance indicators currently in development, which will focus on quality aspects of clinical care and 'outcomes'. There are well recognised limitations in using administrative databases for such purposes but through the work being undertaken we hope to identify the barriers to obtaining valid and reliable data and means to improve the reporting and abstracting systems.

"Effectiveness of care may be monitored system-wide, for example, through readmissions or unscheduled returns for further treatment and use of functional health status measure, such as SF36. These are all incorporated in the performance indicator strategy and identified as priority development areas by the Acute Health Quality Committee. The Committee has a strong interest in the use of functional health measures and will be considering its approach at the next meeting in September.

"Rates of unplanned readmission within Victoria are usually around 10 per cent and there has been little fluctuation in these figures. The validity of this information as a good outcome measure of effectiveness is not certain given that the data incorporates readmissions for chronic conditions and for unrelated conditions.

"The patient satisfaction surveys undertaken in Victoria also reflect upon effectiveness of care and health outcomes and information reported from the survey will assist in determining Department priorities and responses".

Do you agree or disagree with the following statements generally applicable to the hospital(s) you are responsible for:

	Agree	*Disagree*	*Other (a)*
Health outcomes have been adequately monitored to assess changes -			
Networks	2 (33%)	3 (50%)	1 (17%)
Metropolitan hospitals	6 (47%)	5 (38%)	2 (15%)
Rural hospitals	26 (55%)	17 (36%)	4 (9%)
The current Hospital Wide Medical Indicators for health outcomes are too broad to detect significant trends in health outcomes for particular patient groups -			
Networks	4 (67%)	2 (33%)	
Metropolitan hospitals	6 (46%)	4 (31%)	3 (23%)
Rural hospitals	19 (40%)	22 (47%)	6 (13%)

(*a*) "Other" refers to "No response" or "Do not know"
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Does your hospital use the SF36 questionnaire (functional health status self assessment)?

	Yes	*No*	*Other (a)*
Metropolitan hospitals	2 (15%)	7 (54%)	4 (31%)
Rural hospitals	1 (2%)	32 (68%)	14 (30%)
If Yes, has your hospital detected any significant deterioration in health status for any of the treatments it monitors, since 1 July 1993?			
Metropolitan hospitals		2 (100%)	
Rural hospitals		1 (100%)	

(*a*) "Other" refers to "No response" or "Do not know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

DIFFERING APPROACHES TO MEASURING PERFORMANCE AND OUTCOMES

Overall audit comment

5.11 There was widespread agreement throughout the acute health industry that hospitals are adopting different approaches to measuring performance and outcomes which signifies that the present monitoring system is fragmented and does not present a unified model for comparing and measuring the delivery of acute health services. As such, there is a need for a systematic approach to monitoring both the level of quality in Victorian hospitals and health outcomes.

Views of the industry

Do you agree or disagree with the following statement:

	Agree	*Disagree*	*Other (a)*
"At present, hospitals are adopting different approaches to measuring performance and outcomes. There is a need for a systematic approach to monitoring the level of quality in Victorian hospitals. The present system is fragmented and does not present a unified model for comparing and measuring the delivery of acute health services within Victorian public hospitals." (Health and Community Services Committee on Quality, Victorian Department of Health and Community Services [now the Department of Human Services], *A New Framework for Quality in Victoria's Public Hospitals,* Final Report Volume 2, November 1995, p.58)			
Networks	4 (67%)	1 (17%)	1 (16%)
Metropolitan hospitals	11 (85%)		2 (15%)
Rural hospitals	40 (85%)	2 (4%)	5 (11%)
Senior doctors	213 (80%)	37 (14%)	16 (6%)
Charge nurses	256 (84%)	34 (11%)	15 (5%)
Allied health professionals	126 (82%)	14 (9%)	14 (9%)

(a) "Other" refers to "No response" or "Do not know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

What measuring instruments or performance indicators, if any, does the network use to monitor health outcomes?

5.12 Networks monitor health outcomes through a variety of means such as:

- a range of clinical indicators and clinical statistics (such as those developed by Australian Council on Healthcare Standards);
- internal network key performance indicators; and
- the use of service agreements for clinical programs.

5.13 One network made the comment that it does not have the information, systems nor the responsibility for monitoring health outcomes. The network was of the view that the Department, as the purchaser, purchases a volume and type of service to achieve certain outcomes.

Part 6

Equity of access to hospital services

OVERVIEW

6.1 On the basis of the information compiled by the Department of Human Services on the waiting list for elective patients, and in the absence of any independent verification as to the veracity of these figures, the Department has been effective in reducing those in the urgent and semi-urgent categories. However, any practices designed to manipulate waiting list figures, such as the inappropriate recategorisation of patients or the unnecessary transfer of patients to booking lists, has the effect of understating the number of patients on the waiting list.

6.2 Four networks and 4 large teaching hospitals indicated that they did not have the capacity to cater for seasonal increases in patient admissions due to overloading of the system. Similarly, 3 networks and 3 large teaching hospitals advised they did not have the capacity in their hospital(s) to cater for admissions to intensive care. This position calls into question the issue of accessibility to acute health services. One submission received by audit advocated that it would be preferable for Intensive Care Unit costs to be determined outside the confines of the casemix formula.

6.3 In contrast, it was pleasing to find that 5 out of the 6 networks and 72 per cent of hospitals stated that they had sufficient capacity in their hospitals to cater for patient admissions to the emergency department.

6.4 With regard to the overall impact of casemix funding on elective surgery waiting times, 5 networks and 12 hospitals (including 3 large metropolitan hospitals) claimed an improvement, while 42 hospitals (70 per cent), many of which were smaller rural hospitals, understandably informed audit that casemix funding had little or no impact on elective waiting times as these hospitals do not have excess demand for their services. In relation to those hospitals that treat the majority of the State's elective patients, audit concluded that overall, the advent of casemix has had a positive effect in reducing waiting times.

6.5 Mixed views were expressed by networks and hospitals on whether the requirement to meet quarterly targets to qualify for bonus payments under the Elective Surgery Enhancement Program was conducive to the effective management of hospital waiting lists for elective surgery.

6.6 While networks did not express a conclusive view, the majority of hospitals maintained that casemix funding had not improved access for socio-economically disadvantaged groups. In addition, most hospitals held the view that this outcome cannot be achieved by changes to the funding formula.

6.7 The audit revealed that, after 5 years of casemix, an overwhelming proportion of networks and hospitals advised that casemix seldom provides adequate compensation for higher cost patients (one network and 8 hospitals indicated that they are never adequately compensated).

OVERVIEW *- continued*

6.8 The introduction of version 3 of the patient classification system in 1995 provided greater recognition of the cost of treating higher cost patients such as the elderly and those suffering complex illnesses. The Department pays networks and hospitals for long stay patients at a lower daily rate and makes specified grants to cover high cost services. Despite these initiatives, based on the views expressed to audit, it is still arguable whether the system sufficiently distinguishes between the needs of very elderly people and the chronically ill compared with others.

6.9 It was encouraging to find that in order to monitor access to particular hospital services, the majority of networks and metropolitan hospitals maintained information systems which disclosed details such as changes in various types and volumes of acute health services provided by their hospital system. Those that did not were more pronounced among rural hospitals.

6.10 Monitoring of levels of hospitalisation occurs at a departmental level and by a majority of networks and hospitals. However, the lack of monitoring by some networks (33 per cent) and hospitals (42 per cent) and inadequate review of regional variations in admission rates by hospitals (approximately half) do not enable hospital management to readily identify the extent of access for particular categories of patients and types of treatment.

6.11 In terms of the extent of ward/bed closures, the Department maintained that this situation is not monitored as its focus is on outputs rather than inputs. If ward/bed closures compromise the safeguarding of quality of care through reduced or delayed access, this position will need to be reassessed by the Department.

6.12 In discussing issues surrounding access to acute hospital services, one-third of hospitals had changed their admission practices to encourage a particular class of patient, while one in every 6 hospitals claimed that admission practices at their hospital had changed since 1 July 1993 to discourage an increase in throughput for a particular class of patients. The responses provided by hospitals infer that patients can be admitted on the basis of financial considerations rather than clinical need.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

The Report acknowledges the role of booking lists in enabling hospitals to manage their theatres and patients to plan for their impending hospitalisation but implies that the Department uses booking lists to understate surgical waiting lists.

The Department sees value in differentiating between the 2 groups of patients ready for elective surgery: patients which have been booked through a legitimate scheduling mechanism enabling both patients and hospitals to plan, and patients on waiting lists. Booked patients are not, however, concealed by the Department in publishing information regarding elective surgery patients. For example, the Department's quarterly publication, Hospital Services Report, regularly reports both groups of patients.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

The Report notes that Victoria is the only State which counts patients in this way. However, national documents such as the Australian Institute of Health and Welfare publication Waiting for elective surgery in Australian public hospitals, 1995 include Victorian data on both booked and waiting list patients in order that national comparisons can be made.

The recently introduced Elective Surgery Information System (ESIS), in making waiting list management more transparent, will also ensure that patients booked for longer than the maximum 6 week period are not excluded from waiting list calculations.

The Report asserts that, if surgery is cancelled, another 6 week booking period is allowed during which time the patient is not counted as waiting. This is not correct except in very specific cases. In normal circumstances, any re-booking has to be registered and any time in excess of 6 weeks during which the patient is booked is counted as time on the waiting list. Reasons for re-booking, which differentiate between hospital or patient initiated cancellations and clinical reasons for cancellation, must be registered on ESIS. The Department will be examining the re-booking information available through ESIS and considering Hospital Initiated Cancellations as a possible performance indicator for the future.

The Report states that urgent patients can remain on the booking list for up to 42 days (and an additional 42 days if cancellation occurs). This is incorrect. An urgent patient becomes overdue on the ESIS system after 30 days. This 30 days incorporates any booked time.

The Report states that booked patients as a proportion of waiting list patients rose between 1994 and 1997, and suggests this could be attributable to manipulation of waiting list data. The document acknowledges that throughput has increased while waiting lists have remained relatively stable (or increased slightly). Given all patients are booked, higher throughput with a stable waiting list may mean a higher proportion of booked to waiting patients (more detail about the way their statistic was derived would be required to be certain of this claim).

BACKGROUND

6.13 One of the major objectives of the Department of Human Services is to ensure that Victorians have appropriate access to acute health services that are responsive to individual needs. casemix is designed to more equitably distribute a fixed or capped health budget, rather than pay hospitals on a per case basis. Within this context, audit is of the view that the following questions relating to 3 key elements need to be asked when examining the broader issue of equity of access:

- Accessibility — Are waiting times (or in other words "access") for emergency, critical care, elective surgery, allied health and outpatient services in line with clinically acceptable benchmarks?

- Fairness — Is the development of the formula fair in terms of not discriminating between socio-economically disadvantaged groups, the elderly, those who are chronically ill and people with disabilities?

  Are any particular groups or categories of hospitals unfairly treated in terms of allocating funding?

- Appropriateness — Do management procedures enable acute hospital services to be appropriately distributed to meet community needs in the context of the mix of treatments (e.g. hip replacements compared with heart transplants), service types (e.g. inpatient versus outpatient) or geographic location (e.g. inner city, suburban or rural)?

Departmental views on various issues relating to access

6.14 In relation to the question of access and related issues, the Department provided the following comments:

Access

"Access to acute hospital services is managed through the distribution or location of hospital infrastructure and services; the process of target setting; and the broad pricing system.

"Output allocations are made on the basis of a number of factors that include usage (e.g. achievement of throughput targets over recent years and the planned direction of services in the future years), including expected changes in population. General issues of access have been considered as part of the Metropolitan Hospitals Planning Board reports and the Metropolitan Health Care Services Plan. A small amount of throughput has been made available on a competitive basis.

"The Elective Surgery Enhancement Program also provides incentive for improved access for elective surgery patients in the sense that patients with the greatest clinical need receive priority for surgery."

Funding of services for socio-economically disadvantaged groups

"Public hospital services are available to all without charge and it is assumed that socio-economically disadvantaged groups will be treated in the same way as others. There are groups where alternative funding arrangements apply for those services for which the patient system does not work well. Rehabilitation is one such area, and a number of projects have been undertaken to assess the feasibility and use of a new specific classification system. In addition, specific funding is provided to offset extra costs incurred for patients from non-English speaking backgrounds and for Koori liaison work."

Service development

> "The Acute Health Division has a service development program which investigates new models of care and service development. It encompasses innovative programs such as the Hospital in the Home and the Post-Acute Care Programs. Funding for these Programs is identified separately from other casemix funding."

Appropriateness of services

> "Clinical appropriateness is considered to be in the majority of cases, best judged by clinicians and hospital administrators. The exceptions are those services that are extremely costly and for a specific sub-population - such services are often termed 'Statewide superspecialities'. Related to appropriateness of care are 'quality' issues that are considered by a range of mechanisms and processes."

Submission received by audit

6.15 An extract of a submission received by audit from an industry group relating to equity and access follows:

"Under the Medicare Agreement between the State and the Commonwealth, the States are required:

> *To the maximum practicable extent, ... ensure the provision of public hospital services equitably to all eligible persons, regardless of their geographical location.*

"The agreement does not require a local hospital to be equipped with every hospital service; in rural and remote areas, a State should ensure provision of reasonable public access to a basic range of hospital services which 'are in accordance with clinical practices'. Finally, to the extent practicable, hospital services should be available at all recognised hospitals, however, where this is not possible, the State accepts responsibility for referring or transferring the eligible person to where the necessary hospital services are available. Hospital services are defined as including inpatient, outpatient, emergency services (including primary care where appropriate) and day patient services consistent with currently acceptable medical and health service standards.

"The Commonwealth Industry Commission's *1995* Report on Government Service Provision identifies the following 3 principal frameworks for measuring accessibility and equity but only one of these currently has identified indicators:

- Queuing
  - Waiting times for elective surgery
  - Waiting times in emergency departments
- Equity of access
  - indicator not yet developed
- Physical access
  - indicator not yet developed

"Waiting times have, throughout the period of casemix in Victoria, remained generally fairly static, although their composition has changed markedly. The Government's statistics suggest that waiting times for patients who require the most urgent surgery are approximately average for Australia and have remained so during that period. In the early 1990s there was considerable focus on the need to reduce waiting periods for people who were in pain and this led to an early form of patient categorisation, a system which has been refined several times since. There has been a great deal of discussion, debate and work by relevant authorities about waiting times and the classification of patients in terms of clinical need and categorisation has been closely reviewed.

"Victoria's 30 or so largest hospitals report waiting list and waiting time data centrally [audit was advised by the Department that there are 23 hospitals in this category]. This data is now published regularly (but only in summary form) by the Department in its quarterly Hospital Services Report. The data shows that since casemix was introduced changes have been relatively minor, except that the proportion of Category 1 patients - those requiring the most urgent attention, waiting longer than 30 days - has fallen to almost zero.

"Note that, although the data shows hospital utilisation is fairly even, this does not necessarily mean access is equitable, since no direct measure of access is available. A reasonable access measure could be for virtually all Victorians to be within 30 minutes by surface transport of a public hospital [for a defined set of services]. "

ACCESSIBILITY TO ACUTE HEALTH SERVICES

Contextual background to analysing audit findings

6.16 Audit comment in this section in relation to the examination of issues associated with access to emergency and elective services is made in the following context:

- While audit has drawn on some of the key information maintained by the Department in relation to waiting list numbers and waiting times, this information has not been audited due to the magnitude (e.g. around 40 000 patients on the waiting list at any one time) and the difficulty of completing a thorough verification process of this information due to the clinical judgements involved in categorising and recategorising individual patients. The information included in this section, which is presented in broad terms, concentrates on emergency and elective services;
- Issues relating to access to allied health services and outpatient services has not been covered by audit; and
- Any comprehensive analysis of trends in the number of people awaiting elective surgery in the urgent, semi-urgent and non-urgent categories, as well as those awaiting treatment in emergency departments, admission to the hospital through emergency departments (e.g. patients waiting on trolleys) or requiring access to emergency departments (e.g. incidence of ambulance bypass, i.e. where an emergency department is closed due to inability to admit additional patients) needs to recognise the following limitations:

- The increased demand on the public hospital system due to people abandoning private health insurance and an ageing population means that waiting list numbers and waiting times can increase, irrespective of measures designed to treat more patients. In other words, demand can increase at a greater rate than the achievement of higher throughput by hospitals;
- While the scope of the audit did not require an indepth examination of categorisation procedures relating to patients awaiting elective surgery, there are pressures on hospitals to implement procedures to maximise their financial outcome to avoid losing bonuses. These procedures could potentially involve the recategorisation of patients from urgent to semi-urgent or semi-urgent to non-urgent or to initially categorise patients in a less urgent category. Even though a patient in these circumstances can be transferred to a more urgent category based on clinical need if their condition deteriorates, the ability of hospitals to manipulate these figures can give the appearance of greater efficiency and effectiveness of waiting list management than may be the case. Research conducted by the Australian Institute of Health and Welfare over a 6 month survey period revealed that in 1995, 17 per cent of admissions to Victorian public hospitals' elective surgery waiting lists were classified as "urgent" compared with 39 per cent in New South Wales. In discussing various reasons for such differences, the Institute suggested that the classification of patients may still not be consistent across States. As an example, the Institute pointed out that in relation to New South Wales, the urgency classifications in that State allow for separate coding of urgency for patients who require admission within one week. According to the Institute this may lead to less stringent criteria applied when identifying patients who require admission within a one month period than would otherwise have been the case;
- A large component of the reduction to the overall waiting list numbers could be attributable to growth in the treatment of Same Day patients in preference to the more complex cases requiring Multi-Day stays in the hospital; and
- Patients are removed from the waiting list when they are placed on a booking list for surgery, even though they can still wait up to 42 days for the surgery to take place. If the booking is subsequently cancelled, the patient can then wait up to another 42 days for surgery from the date of the new booking. While audit acknowledges that there are some benefits to hospitals in terms of improved waiting list management, the more efficient use of operating theatres and the opportunity for patients to better plan for their impending hospitalisation, the use of booking lists has the effect of understating information presented in relation to waiting lists and waiting times.

Trends in access to acute health services

Overall audit comment

6.17 In the context of the above limitations, audit is of the view that overall, the Department's Emergency Service Performance Scheme and Elective Surgery Enhancement Program have been effective in achieving policy objectives in relation to access to emergency departments, the admission of patients from emergency departments to hospitals and the reduction in waiting list numbers for urgent and semi-urgent cases.

6.18 The Department should be commended for developing the following performance measures:

- waiting time benchmarks for urgent and semi-urgent categories of patients awaiting elective surgery;
- limits for emergency departments in terms of the length of time patients are located in the emergency departments awaiting treatment or admission to the hospital; and
- the number of occasions of hospitals having to revert to ambulance bypass.

6.19 Audit has also drawn attention to the significant increase in non-urgent patients from 15 700 in July 1994 to 20 700 in July 1997 during which time the Elective Surgery Enhancement Program was introduced. There has also been an increase of 3 per cent (1 400) in the number of patients on booking lists as a proportion of patients on the waiting lists. This trend may indicate the availability of a wider range of services within hospitals or it could be attributable to other factors such as the possible manipulation of waiting list data by hospitals.

6.20 Management of waiting lists is one of a number of issues that warrants a detailed audit or investigation in the future.

Emergency and elective services

6.21 The Emergency Services Enhancement Program was introduced in March 1995 and covers 18 hospitals (19 campuses) that have a 24 hour emergency department. Funding is by means of a bonus payment each quarter. Failure to achieve targets on ambulance bypass, waiting time per emergency triage category and waiting time in emergency departments for hospital admission, results in a precise reduction to the bonus payment. The financial incentives for improving emergency services apply at the hospital campus level, not on aggregate data for the network. The total amount paid to hospitals after recalls for the Emergency Services Enhancement Program was $5.5 million in 1995-96 and $8.7 million in 1996-97.

6.22 Financial incentives to reduce waiting list numbers were first introduced by the Department in 1993 through the linkage of eligibility for funds from the additional throughput pool to waiting list performance. This approach was discontinued in 1995-96 upon the establishment of the Elective Surgery Enhancement Program which provides a bonus payment each quarter for the achievement of waiting list targets. Failure to achieve these targets result in specific funding penalties through the recall of bonuses at the end of each quarter. Network performance is measured by the aggregate data from the 22 hospitals in the Program. The total amount paid to networks and hospitals for the Elective Surgery Enhancement Program in 1995-96 was $6.1 million which was increased to $6.9 million for 1996-97.

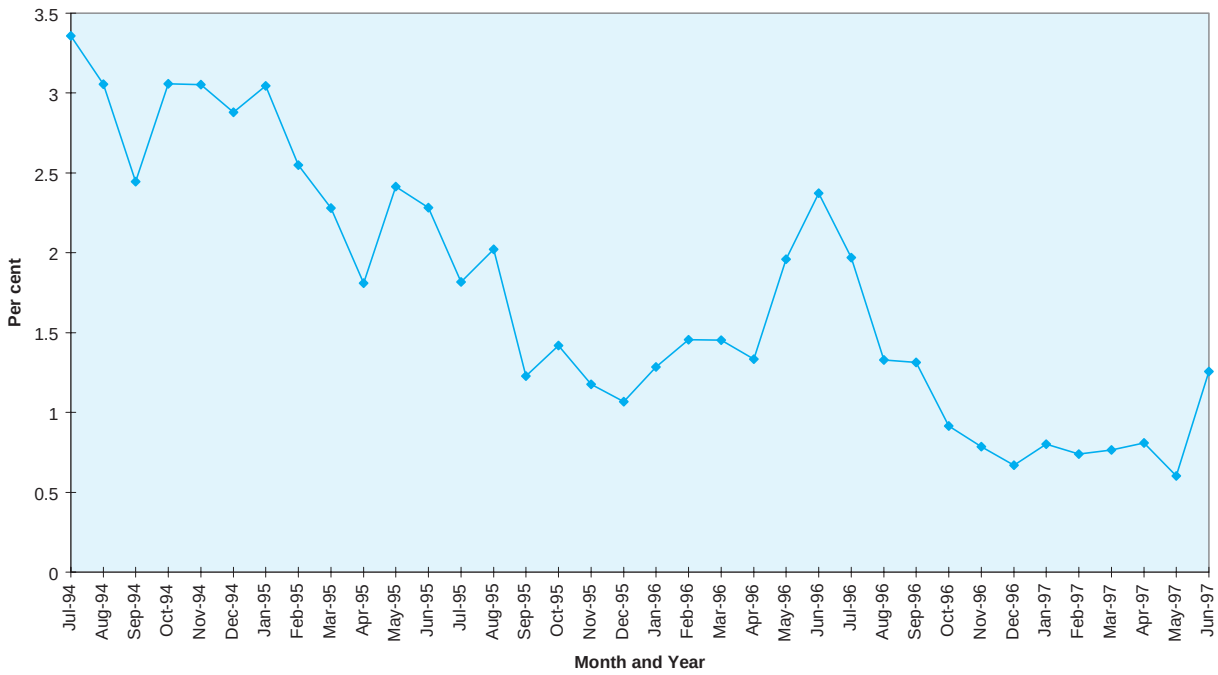
6.23 In 1997-98, a total of $17 million was allocated for each program which together constitute 1.5 per cent ($34 million) of the total acute health budget. The Department also provided an additional $2 million cross-program management bonus to foster balance in the competing demands for beds between elective and emergency services. To receive payment under this latter program, individual participating hospitals must achieve at least 75 per cent of both emergency and elective bonuses in the relevant quarter.

Emergency services

6.24 Examination of statistical data relating to the performance of emergency departments in hospitals shows that:

- All emergency category 1 patients (resuscitation cases requiring immediate treatment, e.g. major trauma, cardiac arrest, unconsciousness, shock) were treated immediately;
- Patients in emergency category 2 (emergency cases requiring treatment within 10 minutes, e.g. severe trauma, chest pain, severe pain, severe breathing difficulty) and emergency category 3 (urgent cases requiring treatment within 30 minutes, e.g. moderate trauma, infection and breathing difficulty) were treated within the standards set by the Australasian College for Emergency Medicine;
- For those hospitals participating in the Emergency Services Enhancement Program in June 1997 there were 760 patients waiting in excess of 12 hours from the time of arrival in an emergency department to the time of their admission to a hospital ward. The proportion of patients treated in emergency departments as shown in Chart 6A who have waited more than 12 hours for a hospital bed has decreased, indicating an improvement in the overall efficiency of emergency care since July 1994; and

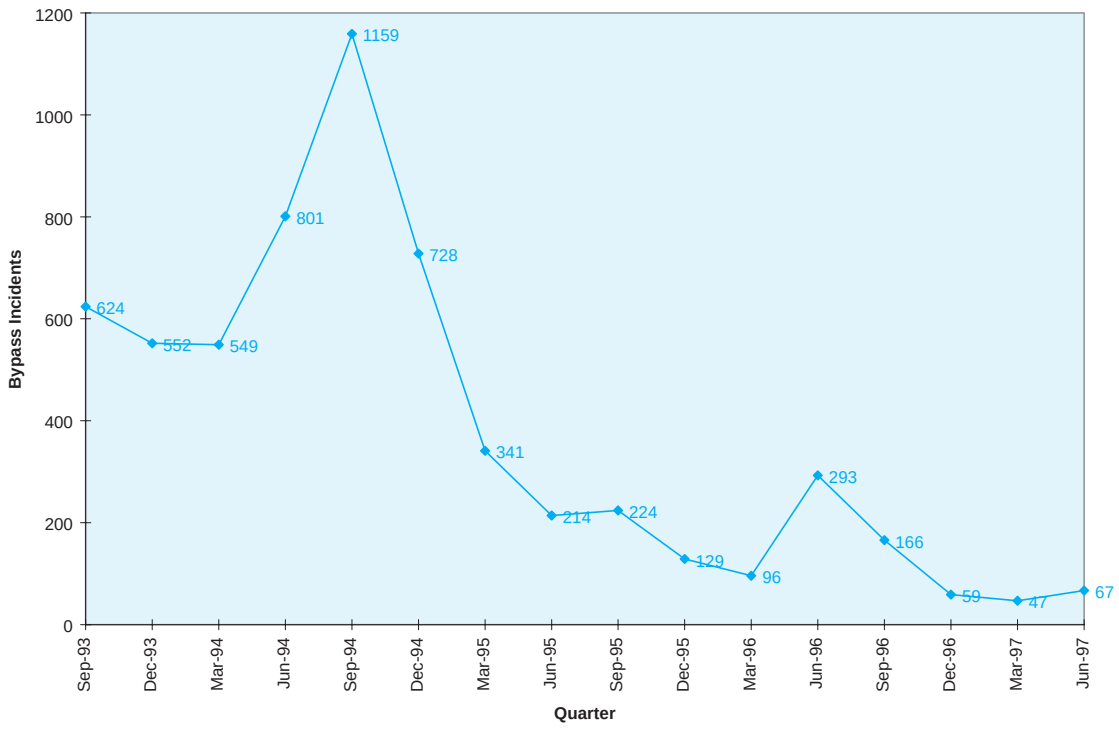
CHART 6A
PROPORTION OF EMERGENCY PATIENTS WAITING
MORE THAN 12 HOURS IN EMERGENCY DEPARTMENTS, 1994 TO 1997
(per cent)



Note: The period of "stay" is calculated from the time care commences to the time when the patient leaves the emergency department. Data only relates to hospitals participating in the Emergency Services Enhancement Program.
Source: Department of Human Services, Hospital Services Reports 1994 to 1997.

- Hospital emergency departments are bypassed by ambulances when an emergency department has reached maximum capacity and the treatment of patients already in the emergency department could be significantly compromised by the ambulance arrival of an additional patient requiring emergency treatment. Each individual period of ambulance bypass is for 2 hours or less. Hospitals incur a penalty in they revert to ambulance bypass on more than 5 occasions per quarter. There has been a substantial decline in the number of ambulance bypasses from 801 in the quarter ended June 1994 to only 67 in the June 1997 quarter, as shown in Chart 6B.

CHART 6B
NUMBER OF AMBULANCE BYPASS INCIDENTS, 1993 TO 1997



Source: Department of Human Services, *Hospital Services Reports*, 1994 to 1997.

6.25 The above data reported by hospitals indicates a substantial improvement in access to emergency services.

Elective services

6.26 Among the objectives of the casemix funding policy is to maintain the low numbers on waiting lists in urgent categories and decrease the semi-urgent and less urgent waiting list. These categories are defined as follows:

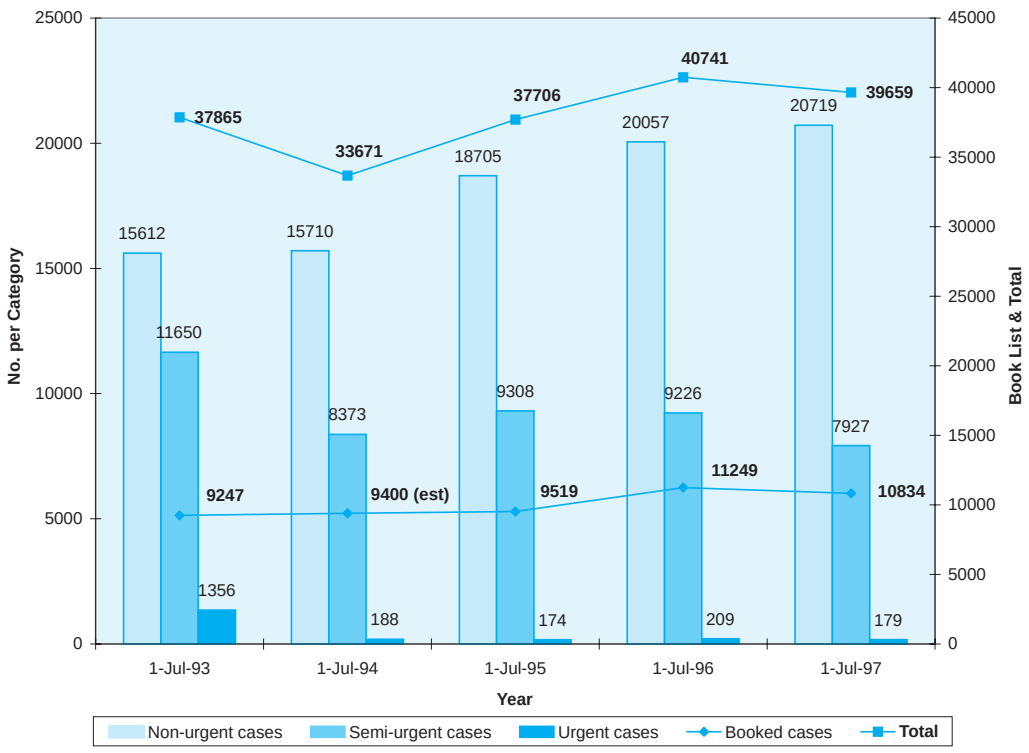
- Urgent cases (waiting list category 1) - very urgent admission desirable for a condition that has the potential to deteriorate quickly, to the point that it may become an emergency. Admission within 30 days is desirable;
- Semi-urgent cases (waiting list category 2) - admission within 90 days acceptable for a condition causing some pain, dysfunction or disability but which is not likely to deteriorate quickly or become an emergency; and
- Non-urgent cases (waiting list category 3) - admission at some time in the future acceptable for a condition causing minimal or no pain, dysfunction or disability which is very unlikely to deteriorate quickly and which does not have the potential to become an emergency.

6.27 Statistical information collected by the Department on elective surgery shows:

- an increase in elective surgery throughput of 36 per cent over the last 5 years (from 108 975 admissions in 1992-93 to 148 473 admissions in 1996-97);
- a reduction in urgent patients waiting longer than 30 days from 1 356 in July 1993 to 179 in July 1997;
- a reduction in the numbers of semi-urgent patients waiting longer than 90 days from 11 650 in July 1993 to 7 927 in July 1997; and
- an increase in non-urgent patients from 15 612 in July 1993 to 20 719 in July 1997.

6.28 Chart 6C reveals the trend in the number of patients on the waiting list according to the various waiting list categories of patients, including those in the non-urgent category, covering the period 1 July 1993 to 1 July 1997. Booking list data is also included.

CHART 6C
WAITING LIST NUMBERS
ACCORDING TO WAITING LIST CATEGORIES, 1993 TO 1997



Source: Hospital waiting list returns in Hospital Services Report, October 1995, November 1996, October 1997, Department of Human Services.

Booking lists

6.29 Booking lists are used to ensure the even flow of cases through a limited number of public operating theatres. Patients are removed from public hospital waiting lists and placed on a booking list up to 6 weeks prior to their date of admission. The inclusion of patients on booking lists reduces published figures for waiting lists. As part of a long standing practice, Victoria is the only State which reduces waiting list numbers in this manner.

6.30 In October 1996, the Minister for Health commissioned a review into certain matters relating to booking lists and the recategorisation of patients on waiting lists. The findings from the review into allegations of inappropriate shifting of patients from the waiting list to the booking list found that from the 1995-96 available data, there was no evidence that hospitals were systematically and artificially transferring patients from the waiting list to the booking list in order to qualify for bonus funding. Comments on recategorisation of patients on waiting lists are included later in this Part of the Report.

6.31 From the previous chart it can be seen that the number of people on the waiting list reduced immediately after the introduction of casemix funding in July 1993. This reduction, however, was not able to be sustained and the waiting list has gradually increased to more than its former levels. In addition, the number of patients on the booking list has increased as a proportion of the total waiting list (24 per cent at 1 July 1993 to 27 per cent at 1 July 1997). One possible explanation for this increase is that manipulation of the waiting list data could have occurred to achieve bonuses as the level of admissions from booking lists has remained relatively constant. As indicated earlier in this Part, this matter requires further investigation by the Department.

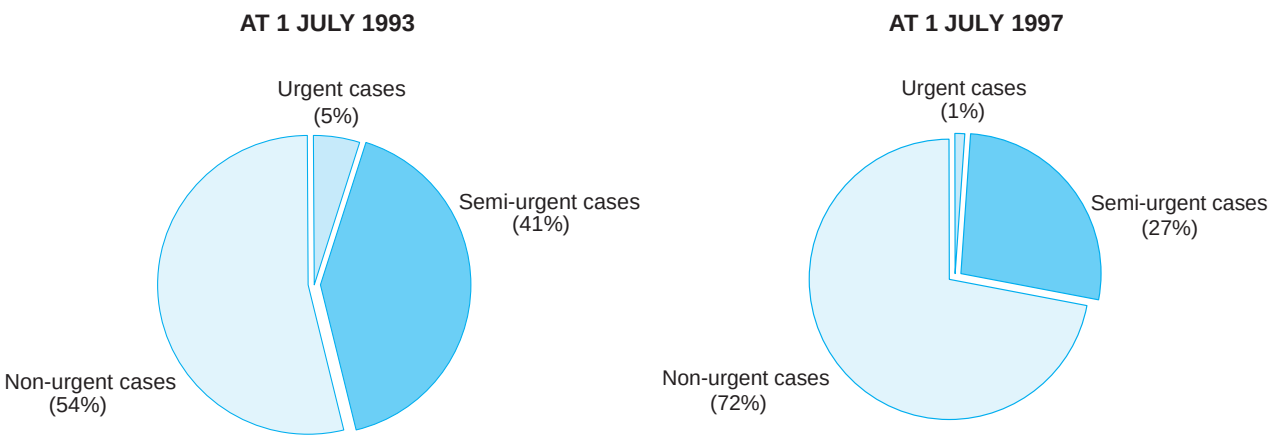
6.32 The composition of the booking lists in terms of patient urgency categories should be made available to enable the Department to assess the effectiveness of its policy of rewarding hospitals for treating the most urgent cases. As part of this process, the Department may elect to review the lack of alignment between the Department's policy on the treating of urgent patients (within 30 days of placement on the waiting list) and the fact that urgent patients can remain on the booking list without penalty to the hospital for up to 42 days. Before the commencement of the Elective Surgery Information System on 1 January 1998, if a patient's surgery was cancelled, then an urgent patient could wait a further 42 days without penalty on the booking list. At the time of audit, the systems in place enabled these practices to remain undetected. The Elective Surgery Information System is designed to detect these practices.

Increase in non-urgent cases on the waiting list

6.33 Overall, there were 1 794 more patients waiting for elective surgery (including 1 587 booked patients) at 1 July 1997 than when casemix funding was first introduced. Although the extent of urgent and semi-urgent cases on the elective waiting list decreased by 1 177 and 3 723, respectively, between 1 July 1993 and 1July 1997, non-urgent cases increased by 5 107 with a significant rate of increase occurring from July 1994. The increase in the proportion of non-urgent patients between July 1994 and July 1997 occurred during the period in which Elective Surgery Enhancement Program was in operation. This Program rewarded hospitals for treating urgent and semi-urgent patients. Non-urgent patients were not included in the Program.

6.34 Chart 6D shows the comparison of the various categories in the waiting list at 1 July 1993 (when casemix was first introduced) and 1 July 1997 (the most currently available figure).

CHART 6D
BREAK-UP OF WAITING LIST BETWEEN THE VARIOUS URGENCY CATEGORIES



6.35 In summary, the incentive schemes under casemix have resulted in a reduction in the number of urgent and semi-urgent cases. However, a corresponding increase in non-urgent cases suggest that, despite an increased demand for public hospital services, changes in clinical assessments could have contributed to the improved performances in Categories 1 (urgent) and 2 (semi-urgent) through the recategorisation of patients to lower categories. For example, some cases that would have been regarded as urgent or semi-urgent prior to casemix may be clinically reassessed as semi-urgent and non-urgent respectively. In addition to the issue of recategorisation, the present arrangements allow for the initial categorisation of patients to favour lower categories of urgency due to the penalties for not treating the more urgent patients within designated targets.

6.36 An inter-departmental memorandum used in a hospital is reproduced in Chart 6E to show how the recategorisation of patients can be applied to avoid payment of a penalty under the casemix system.

CHART 6E
EXAMPLE OF RECATEGORISATION PRACTICES

..... HOSPITAL
Inter-Departmental Memo

To See Distribution List
From ....., Director of Medical Services
Date .....
Subject Category 2 Patients

Please find attached a list of patients that we have recorded as Category 2 under yourselves who should receive their surgery prior to 30.06..... If any of these patients remain Category 2 after 30.06....., the Hospital will receive a penalty. Hence, it is imperative to ensure that they have their surgery within this time frame or are re-categorised to Category 3. Can you please advise of any re-categorisation to ....., our Waiting List Co-ordinator?

.....
Director of Medical Services

6.37 The review of allegations of the inappropriate recategorisation of patients into less urgent clinical categories, commissioned by the Minister for Health in October 1996, found that while there were strong prima facie indications that recategorisation does occur for significant numbers of patients, the appropriateness or otherwise could not be determined from the review. To strengthen the Department's monitoring role, audit is of the view that:

- The issue of whether the nature of any changes in the clinical assessment of elective surgery patients is appropriate needs to be examined on a frequent basis by the Department. As a first step, the Department should examine clinical indicators such as mortality rate trends for each category of urgency on the waiting list, including the non-urgent category. Any unusually high rates could signify the inappropriate categorisation of patients on the waiting list;
- The Department should continue to monitor trends in each of the performance enhancement programs and, in conjunction with clinical advice, continue to periodically reassess the appropriateness of the targets set for each program; and

- A more relevant indicator of waiting list performance that is worth considering is the waiting time (clearance rate) per speciality. The clearance rate refers to the time required to clear the list on a per specialty basis if no further additions to the list were made. While this data is not currently maintained by the Department, it is expected to become available in 1998-99 under the Department's proposed Elective Surgery Information System.

6.38 In audit opinion, waiting times per specialty should be published by the Department and incorporated into the current Elective Surgery Enhancement Program in the form of financial incentives to improve patient access. In the opinion of many eminent bodies such as the Australian Institute of Health and Welfare, waiting times per specialty are a major indicator of patient access.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

Clearance rates were published by the Department according to specialty and hospital between 1989 and 1991. At that stage no other State had comprehensive waiting list data bases. Publication was discontinued at the request of the Advisory Committee on Elective Surgery and hospitals as the figures were commonly construed as "average" waiting time for individual patients and this led to false expectations. Clearance rates are misleading unless volume is taken into account.

Overall impact of casemix funding on elective surgery waiting times

Overall audit comment

6.39 In terms of those hospitals catering for the majority of elective patients, the advent of casemix has had a positive effect in reducing waiting times.

Views of networks and hospitals

What has been the overall impact of casemix funding on elective surgery waiting times for your hospital(s)?

6.40 Three networks and 8 hospitals were of the view that the overall impact of casemix funding has been to improve elective surgery waiting times for their hospital(s). Similarly, another 2 networks and 4 hospitals claimed a marked decrease in elective surgery waiting times.

6.41 In contrast, 42 hospitals (70 per cent) indicated that casemix funding has had very little or no impact on improving elective surgery waiting times in their hospital. The majority of these hospitals were smaller hospitals located in rural regions where waiting lists were not an issue.

Overall impact of micro-economic reforms on elective surgery waiting times

Overall audit comment

6.42 In the opinion of two-thirds of hospital Chief Executive Officers who could separate the effects of casemix from micro-economic reform, significant budget reductions did not have a major impact on waiting times for elective surgery.

Views of hospitals

What has been the overall impact of micro-economic reforms on elective surgery waiting times for your hospital(s)?

6.43 Out of the 22 hospitals which could separate the effects of casemix from micro-economic reform, 15 hospitals (68 per cent) stated that micro-economic reforms have had no impact on elective surgery waiting times. Five of the remaining hospitals claimed that there are no waiting times for elective surgery in their hospitals.

Management of waiting lists

Overall audit comment

6.44 Based on the information supplied by the Department, extensive monitoring of waiting list data is undertaken by the Department. Networks and hospitals identified a need to give greater attention to waiting times rather than focusing on numbers.

6.45 Mixed views were expressed by networks and hospitals as to whether the structure of meeting quarterly targets to qualify for bonus payments under the Elective Surgery Enhancement Program was conducive to the effective management of hospital waiting lists for elective surgery. The annualisation of bonus payments was suggested by networks and hospitals to improve the management of waiting lists.

Views of the Department, networks and hospitals

What management controls has the Department established to ensure the integrity of waiting list data provided by hospitals?

6.46 According to the Department, "patients are allocated a clinical category by their treating clinician. This is clear departmental policy which is made explicit in Funding Policy documentation.

"The clinical categories to which elective surgery patients are allocated relate to definitions which are standard Statewide definitions.

"A clinical categorisation project is currently being conducted with the Royal Australasian College of Surgeons to ensure consistent applications of clinical categorisation practices within and across hospitals.

"Waiting list data is analysed and reported on each month. Analyses are conducted routinely to identify any trends or anomalies within the data. If there are any unexplained variations in the data, the Director of Acute Health Division writes to the Network/Hospital Chief Executive Officer seeking a written explanation of the variation.

"Data is routinely collected on patients' public or private status and this information is monitored.

"The Advisory Committee on Elective Surgery is a committee of eminent clinicians and surgeons which provides advice to the Minister and Secretary regarding the management of elective surgery. The Advisory Committee on Elective Surgery receives a monthly statistical report on waiting list information which is discussed at its meeting and the Committee may request the Department to investigate any data reported by Hospitals or Networks which it considers requires explanation".

How will the Elective Surgery Information System prevent the manipulation of waiting list data by hospitals?

6.47 The Department advised that "the existing waiting list information system only contains aggregate data.

"The Elective Surgery Information System will contain significantly more data items including: the patient's unit record number, ready for care/not ready for care status, booking and re-booking details, reasons for cancellation and postponements information.

"The system will provide historical information at the individual patient level so that it will be possible to monitor hospital practices, in relation to their management of elective surgery, at the patient level.

"The system will also make it possible to report on the actual waiting time experienced by patients awaiting surgery".

Is the structure of meeting quarterly targets to qualify for bonus payments under the Elective Surgery Enhancement Program conducive to the effective management of hospital waiting lists for elective surgery?

	Yes	*No*	*Other (a)*
Networks	3 (50%)	3 (50%)	
Metropolitan hospitals	7 (54%)	5 (38%)	1 (8%)
Rural hospitals	2 (4%)	13 (28%)	32 (68%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Networks

6.48 Suggestions made by various networks, which are not satisfied with the current system, on whether bonus payments could be structured to improve the management of waiting lists are described below:

- bonus payments should be seasonalised; and
- although the structure is generally acceptable, bonus payments should be linked to waiting times, not numbers of patients on the waiting list.

6.49 One network made the comment that waiting lists and targets are generally incompatible since waiting lists reflect demand for services, while targets reflect what is to be supplied under a capped funding situation.

Hospitals

6.50 Various suggestions from hospitals are set out below:

- bonus payments should be annualised;
- appropriate regional self-sufficiency measures should be developed;
- the numbers and types of cases taken from waiting lists should be recognised;
- better performing hospitals should be given more bonuses to remain efficient; and
- waiting times should be used rather than numbers.

6.51 According to one metropolitan hospital, "Waiting lists are a political process reflecting a poor understanding of demand".

Industry submissions

6.52 Extracts of submissions received by audit from industry groups follow:

- Anecdotal evidence indicates that the waiting time for outpatient appointments has blown out to 4 months for some specialties in our major tertiary hospitals. This impacts on effective and timely patient care and also has the effect of choking off the flow of patients onto elective surgery waiting lists;
- Access is defined as the capacity of individuals to obtain the same quality of service. Access in the acute sector for inpatient care is often determined by the "waiting list";

  Nurses involved in waiting list management say that there is very little fairness to the system. They maintain that the lists, the categorisation and waiting times should be made public in accordance with nationally agreed formulae. Random audits to ensure that agencies comply should help to depoliticise waiting lists;
- Waiting time for access to non-acute services has increased since the introduction of casemix funding. Current official mechanisms for measurement of hospital waiting lists focus almost exclusively on medical and surgical patients and do not consider those waiting to access other allied services; and
- The waiting lists have blown out but this is not really a problem of casemix in particular. In general, most urgent orthopaedic problems are lucky to be dealt with within 3 months, and non-urgent problems are waiting for up to 2 years.

Capacity to meet demand for services

Overall audit comment

6.53 The rating as overloaded by 4 networks and 13 hospitals of the capacity of their hospitals to cater for seasonal increases calls into question the issue of accessibility.

6.54 The contention by 3 networks and 4 hospitals that their hospital's capacity to cater for admissions to intensive care beds is overloaded signifies a reduced level of access. These views were supported by various submissions received by audit.

6.55 Generally speaking, based on the views expressed by networks and hospitals, patient access to emergency departments seemed to be satisfactorily catered for at the time of audit.

Views of the networks and hospitals

Please rate the capacity of your hospital(s) to cater for:	Overloaded	Sufficient	Other (a)
Seasonal increases in patient admissions -			
Networks	4 (67%)	2 (33%)	
Metropolitan hospitals	5 (38%)	8 (62%)	
Rural hospitals	8 (17%)	37 (79%)	2 (4%)
Admissions to intensive care beds -			
Networks	3 (50%)	3 (50%)	
Metropolitan hospitals	3 (23%)	6 (46%)	4 (31%)
Rural hospitals	1 (2%)	20 (43%)	26 (55%)
Patient admissions to the emergency department -			
Networks	1 (17%)	5 (83%)	
Metropolitan hospitals	2 (15%)	7 (54%)	4 (31%)
Rural hospitals	4 (9%)	36 (76%)	7 (15%)

*(a) "*Other" comprises either "No response", "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Industry submission - capacity of hospitals to meet demand for intensive care beds

6.56 The following submission to the audit relates to observations concerning general intensive care:

"Since the introduction of casemix-based hospital funding in Victoria in July 1993 there has been a reduction in availability of public hospital intensive care services by way of closure, privatisation, and more often, less explicit restrictions on intensive care bed numbers.

"The relative lack of intensive care services in the Public Sector in Victoria has led to an unacceptably dangerous practice of transporting unnecessarily, large numbers of critically ill patients between metropolitan hospitals, to accommodate them in Intensive Care Units. As many as one in 10 patients being transferred because of lack of beds is reported by several centres.

"Reasons are to do with inadequacy of funding which acts as a disincentive to providing intensive care services in the casemix-based funding environment.

"The reluctance on the part of public hospitals to re-open 9 public hospital intensive care beds, as promised by the Minister for Health in August 1996, is of concern. Although a relatively small amount of funding has been offered for capital equipment, without some realistic reimbursement of intensive care bed running costs, hospitals might be loathe to open beds.

"The current construction of casemix, as a tool to fund Intensive Care Services, is inadequate. The "*Review of Emergency and Critical Care Services in Victoria"* in December 1994 expressed concern over the funding of Intensive Care under Casemix. Furthermore the Commonwealth Department of Health and Family Services in its February 1995 report on Development of version 3 of the patient classification system states 'It is preferable that intensive care unit costs are determined outside the classification system'.

"Casemix-based funding was introduced into Victoria at a stage when hospital costing systems were poorly developed and poorly implemented. With a new method of funding which demanded bottom up costing of services, many inputs to the classification system costings were made top-down, based on nursing hours. Nursing hours in the majority of units are allocated on an averaged basis as one nurse to one intensive care patient. There is little research to support the constancy of this nursing ratio over the average 4 day patient stay in general intensive care units; there is, contrarily, widespread acknowledgment that nursing intensity is as high as 3:1 on the first day and declines variably thereafter. Failure of costing systems to acknowledge this leads to the erroneous conclusion that decreasing length of stay will result in proportionate real savings. Put another way, earlier discharge of day 4 lower dependency patients and admission of day 1 higher dependency patients (increased productivity) is discouraged by the same average remuneration.

"There was from the outset no funding specifically for intensive care, other than for those patients mechanically ventilated for more than 96 hours. In practice this amounted to specific funding of about 20-30 per cent of patients and no funding directed towards others. The intensive care resource consumption of those patients who are not mechanically ventilated, or who are ventilated for less than 96 hours was supposedly accounted for within the average payment for a wide range of patient classification groups. This was a financial incentive for hospitals to accept average payment but not provide the service.

"More recently, and commendably, a co-payment to subsidise the expense of mechanical ventilation for respiratory failure has been added to the casemix-based payment in a number of classification groups. While it is agreed that mechanical ventilation is a useful flag for increased resource consumption in intensive care, the amount offered as co-payment is too small. Furthermore this co-payment is in the context of an overall capped budget to the hospitals.

"Despite an increase in costs, there has been no increase in funding. Rather there has been a rejigging of the low trim point to exclude a subset of patients, who although treated in intensive care, are remunerated at a lesser rate on the basis of short total hospital length of stay.

"In summary, given the current state of hospital costing systems, information points to intensive care not "supporting itself" in terms of output-based income. This has led to hospitals implicitly and explicitly restricting access to intensive care as evidenced by bed closures and the large numbers of patient "transfers" within Metropolitan Melbourne. Despite financial incentives for capital equipment purchase to open or re-open closed intensive care unit beds, in the absence of adequate funding for running costs, intensive care bed numbers in the public sector remain lower than in 1992-93, and service provision does not meet the needs of Victorians."

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

The Department has noted with concern that the number of transfers of critical care patients appears to have been rising, although comprehensive data are not available through current systems. There was a shortage of intensive care during the 1997-98 winter peak and the Department responded with both short and longer-term measures:

- *Extra funding was put into the system for the opening of additional intensive care beds for the winter period;*
- *Networks were funded to prepare Bed Management Strategies which focused on demand management across the areas of elective, emergency and critical care services, but with a particular emphasis on improving the availability of critical care; and*
- *The Department commenced the development of a performance program which would reduce inter-hospital transfer of critical care patients. The program is being developed in conjunction with a working group representing Network medical administrators, cardiologists, emergency physicians and intensive care clinicians and will be introduced as part of the 1998-99 Hospital Access Program. The program will introduce new data collection mechanisms, negotiate targets with networks to achieve both hospital and Statewide reduction in inter-hospital transfers and move towards a benchmark approach when comprehensive data are available, thus improving the care of critically ill patients.*

Practices to discourage admission of particular classes of patients

Overall audit comment

6.57 One in every 6 hospitals, mainly located in rural regions, indicated that admission practices had changed to discourage throughput in various specialities such as ophthalmology. Audit considers that this may be due to the unprofitable nature of these services and the capping of Same Day medical treatments.

Views of hospitals

Have any admission practices changed at the hospital since 1 July 1993 to discourage an increase in throughput for a particular class of patients?

	Yes	*No*	*Other (a)*
Metropolitan hospitals	2 (15%)	10 (77%)	1 (8%)
Rural hospitals	8 (17%)	36 (77%)	3 (6%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

6.58 According to the 10 hospitals which indicated that admission practices had changed to restrict access, the following specialties were involved:

- ophthalmology (4 rural hospitals);
- endoscopy (1 metropolitan and 1 rural hospitals);
- same day medical (3 rural hospitals);
- joint replacement (1 rural hospital);
- oral surgery (1 rural hospital); and
- chronic medical back problems/therapeutic (1 rural hospital).

6.59 Audit interviews with rural hospital Chief Executive Officers indicated that the major reason for the withdrawal of services was inadequate reimbursement under the casemix formula for the engagement of specialists. In relation to medical treatments, which form a high proportion of rural hospital acute health services, the introduction by the Department of output limits on Same Day medical treatments restricted access to these treatments.

6.60 Previous audit comments in relation to the role delineation of hospitals and the need for improved service planning in rural areas are relevant to addressing the provision of appropriate health services. In relation to the supply of specialists to rural areas, the Department may need to review the effectiveness of the Rural Core Specialist Services Grant.

Industry submission

6.61 One submission received from an industry group included the following extract:

"There has been a reduction in equity of access to services since the introduction of casemix funding. Altered funding arrangements have resulted in reductions and rationalisation of services in the public sector. This has resulted in significant reductions in areas of service delivery not directly linked to casemix funding. In particular, non-inpatient services have been significantly affected in many acute hospitals.

"There has been a significant reduction in the range of services available, especially at an outpatient level. For example, paediatric outpatient services have been severely curtailed or in many cases removed as core services. A further example is the provision of outpatient adult services which have also been significantly reduced in both scope and availability.

"These reductions have occurred concurrently with reductions in funds available in other areas of service provision, such as Community Health Centres and the Royal District Nursing Service, which have experienced an increased demand for their services with the increasing throughput from acute services as a consequence of casemix funding.

"The general contraction in availability of public outpatient services and the move towards a 'user pays' philosophy has further reduced equity in access to services.

"There has been a move toward contracting out of speech pathology services which bring inherent problems in the monitoring of quality and standards of service provision."

FAIRNESS OF THE CASEMIX FORMULA

Access for socio-economically disadvantaged groups

Overall audit comment

6.62 Although the views of networks were divided, the majority of hospitals indicated that casemix funding had not improved access for socio-economically disadvantaged groups. Most hospitals advised that this outcome cannot be achieved by changes to the funding formula.

6.63 The impact of casemix and micro-economic reforms on waiting times for particular classes of outpatient services, which would be in demand by socio-economically disadvantaged groups, could not be monitored by the Department until the recent introduction of an output-based funding system for outpatients known as the Victorian Ambulatory Classification System.

6.64 Various measures to enhance access such as strategies targeting patients at risk have been suggested by audit.

Views of networks and hospitals

Has the casemix funding system improved access to acute health services for socio-economically disadvantaged groups?

	Yes	*No*	*DK*
Networks	2 (33%)	1 (17%)	3 (50%)
Metropolitan hospitals	3 (23%)	8 (62%)	2 (15%)
Rural hospitals	9 (19%)	31 (66%)	7 (15%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

If No, can the casemix funding formula be used to improve access to acute health services by socio-economically disadvantaged groups?

	Yes	*No*	*DK*
Networks		1 (100%)	
Metropolitan hospitals	2 (25%)	4 (50%)	2 (25%)
Rural hospitals	6 (19%)	23 (74%)	2 (7%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

6.65 Suggestions by hospitals on how the casemix formula could be used to improve access to acute health services by socio-economically disadvantaged groups, included the following:

- providing incentives to assist access and improve service delivery systems for disadvantaged groups; and
- determining the health needs and socio-economic profile for each area and using casemix to pay for each person.

6.66 In addition, audit is of the view that the Department should also monitor trends on access to hospital services, such as outpatient services, which mainly cater for socio-economically disadvantaged groups.

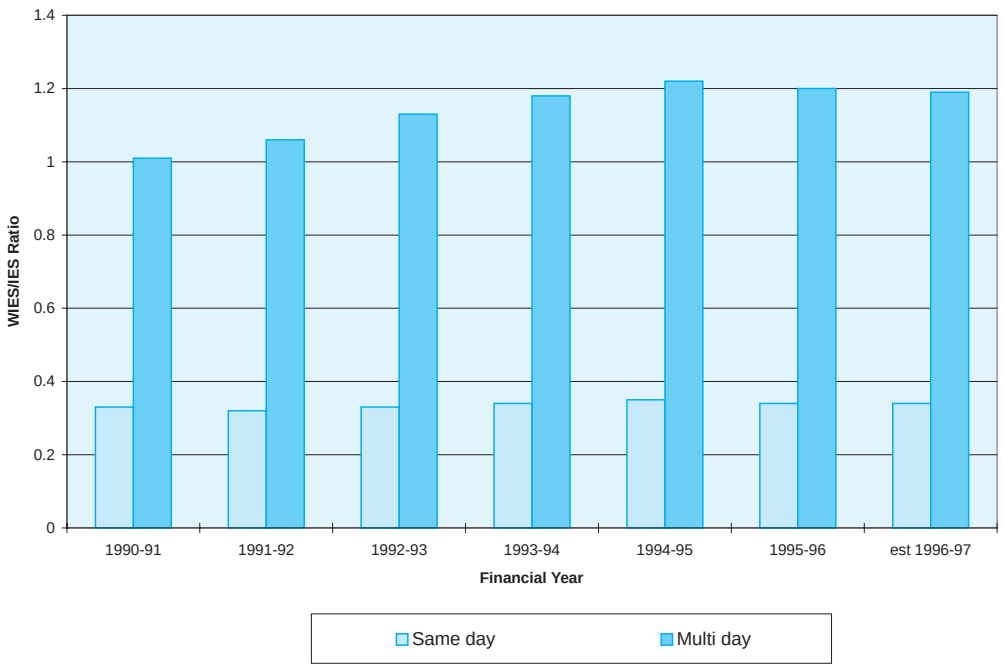
Greater case complexity for multi day patients

6.67 The groups of people who would be expected to be disadvantaged under the casemix payment system are those requiring treatment that cost more than the average case due to a variety of factors. Such groups include the elderly, frail and aged, Aboriginals and people with chronic illnesses and disabilities and from a non-English speaking or low socio-economic background. The average case complexity for these groups is higher due to the presence of co-morbidities or other complicating clinical factors in their medical diagnoses. Case complexity is also a function of the ageing, socio-economic and health status of a hospital's catchment population, which is counter-balanced by improved medical practices, technological advancements and better service integration.

6.68 An analysis of average case complexity over time by examining the trend in average cost weights is indicative of whether there has been a systematic bias in the admission of people with or without co-morbidities or complicating clinical factors. In other words, an increasing trend would indicate that a higher proportion of Multi-Day patients are represented by those suffering more complex illnesses treated by hospitals. The increasing trend in average case complexity for Multi-Day patients shown in Chart 6F could indicate that disadvantaged groups have not been subject to systemic bias in terms of access. It is difficult, however, to be conclusive due to the extent to which substitution of Multi-Day stays with Same Day stays has had the effect of increasing case complexity. In order to be definitive on the level of access by disadvantaged groups, the Department would need to monitor details at an individual patient level.

6.69 Casemix funding was expected to increase the average cost weight over time as hospital admission policies are tightened to refer less complex cases to alternative health care providers. Reductions to hospital budgets, particularly those that occurred as from 1992-93, would also be contributing factor. Chart 6F shows the trends in average cost weights (WIES per IES) which are a measure of the case complexity of networks and hospitals.

CHART 6F
TRENDS IN AVERAGE CASE COMPLEXITY, 1990-91 TO 1996-97



Source: Department of Human Services.

6.70 Chart 6F shows that trends in average case complexity are different for Same day patient compared with Multi-Day patients. The average case complexity for Same day patients has remained relatively stable over the past 7 years, however, the average case complexity in Multi-Day patients has increased steadily between 1992-93 and 1994-95 which coincided with the period of major government reform.

6.71 The analysis indicates that an incentive exists under casemix funding and tighter budgets for networks and hospitals to reduce costs through the substitution of Multi-Day care with Same Day procedures where clinically appropriate. This long-term trend would also lead to greater average case complexity in Multi-Day stays as the less complex potential Multi-Day cases are those most likely to be admitted for Same Day procedures.

6.72 The Department will need to be vigilant in determining the allocation of target volumes to networks or hospitals which have growing caseloads of more complex patients as fewer patients can be treated under the same historic targets set by the Department.

6.73 Given the decreasing trend in the average cost weights for Multi-Day patients since 1994-95 shown in Chart 6F, audit is of the view that the Department should actively monitor access for the patient population at most risk (e.g. potential long stay patients who have more complex medical conditions) through specific analyses of average case complexity and greater liaison with other health and welfare agencies. To provide an added safeguard against declining access, the Department could consider the introduction of an Affirmative Action Statement for hospitals which targets patients at risk (e.g. as introduced by the South Australian Health Commission under its casemix funding system).

Compensation for higher cost patients, e.g. the chronically ill

Overall audit comment

6.74 The overwhelming proportion of networks and hospitals hold the view, which is not shared by the Department, that they are only sometimes, seldom, or in some cases never, adequately compensated for higher cost patients. Several submissions received by audit also support these views. This issue warrants an indepth analysis by the Department.

Views of networks and hospitals

Does the casemix formula adequately compensate your hospital(s) for higher cost patients such as the chronically ill, the frail and elderly, people with disabilities and those patients from socio-economically disadvantaged groups?

	Always	*Often*	*Sometimes*	*Seldom*	*Never*	*Other (a)*
Networks		1 (17%)	2 (33%)	2 (33%)	1 (17%)	
Metropolitan hospitals	1 (2%)	2 (16%)	2 (15%)	6 (46%)	3 (23%)	
Rural hospitals		8 (17%)	11 (24%)	11 (23%)	5 (11%)	11 (23%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

6.75 In relation to those circumstances where it was felt that the casemix formula does not provide adequate compensation for higher cost patients, most of the responses centred around the formula only paying for the average cost of a defined set of clinical services and inadequate compensation paid for patients staying longer than the average length of stay.

If you answered Sometimes, Seldom or Never, is your organisation implementing any initiatives to improve access for these groups?

	Yes	*No*	*DK*
Networks	5 (100%)		
Metropolitan hospitals	4 (36%)	3 (28%)	4 (36%)
Rural hospitals	7 (26%)	15 (55%)	5 (19%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

6.76 Initiatives implemented or suggested to improve access of higher cost patients included:

- introducing co-ordinated care trials, including the Post-Acute Care Program;
- the inclusion of high cost patients (currently excluded because they skew the averages) in determining the cost weights used in the formula;
- developing shared care options and community-based models of care;
- ensuring the continuity of care, e.g. through closer liaison with general practitioners and the further development of multi-purpose services;
- developing on-site aged care and rehabilitation services;
- providing motel-type accommodation for day patients who travel long distances;
- locating outpatients services on public transport routes; and
- providing specific grants.

6.77 One network emphasised that, although the casemix formula seldom provided adequate compensation to hospitals in their particular network for higher cost patients, patients are not discriminated against even though they are likely to cost above the "average".

Industry submissions

6.78 Various submissions were received from industry groups which included comments relating to issues surrounding the fairness of the casemix formula. The relevant extracts are outlined below:

- Casemix has been particularly criticised for discriminating against patients with chronic conditions and against elderly patients, whose length of stay is generally longer than for younger people. The patient classification system reflects some differences in particular areas between the very young, adults and the elderly, but it arguably does not sufficiently yet distinguish between the needs of very elderly people and others. For physiological reasons, for example, an elderly person might take twice as long as a 25 year old to recover from major surgery, or an illness such as a serious pneumonia; and
- The most glaring deficiency in the casemix formula was the non-recognition of intra-patient group variation. The formula assumes, erroneously we believe, that on average across the breadth of Victoria each patient in each patient group will be the same degree of complexity and consume the same amount of resources.

  For instance, the average patient with cardiac failure treated in Birregurra Hospital (now closed) was assumed to be of the same illness severity as the average patient treated in Royal Melbourne Hospital. To an objective observer, such a contention is difficult to sustain. Nonetheless, Birregurra and Royal Melbourne Hospital both received the same level of casemix funding for each patient treated with cardiac failure. Through various minor iterations, the Department of Human Services is slowly, yet still inadequately, addressing this anomaly. Other States, for instance New South Wales, recognised that patients treated in major hospitals were more complex and hence incorporated a "teaching hospital increment" in their funding arrangements. This also mirrors the method used in Medicaid funding in the United States of America.

The other issue that is intrinsically linked to outcome and which the current casemix funding formula claims to make allowance for, but fails to so do, is the spectrum of complexity of cases in each diagnosis-related group, so-called intra-patient group variation. More complex patients typically have more pre-morbid conditions and more severe acute disease, which necessarily impacts upon the eventual cost and outcome of treatment. However, the patient classification system and the Victorian casemix formula makes insufficient recognition of this fundamental issue, thereby disadvantaging hospitals where more complex treatment is undertaken.

Casemix, when it was initially presented, was claimed to reduce the uncertainty of funding for teaching hospitals. Unfortunately, despite massive changes in the health system and multiple modifications of casemix and weightings, there is even less certainty and great difficulty for hospital administrators in financial planning.

It was intended that payment per patient would be according to the complexity of the case but later hospitals were told that this was fine but only up to a certain amount of money.

Another flaw with casemix has been using the average cost of the best "benchmark" hospital or the most efficient hospital at managing a certain condition, but unfortunately this does not take into account individuality of different facilities, centres of excellence and does not really cover teaching or research despite the claim that there was some loading for this built into casemix.

APPROPRIATENESS OF ACUTE HEALTH SERVICES

Information systems to assess appropriateness of services

Overall audit comment

6.79 Based on the results of the audit survey, information systems are in place to provide the Department, networks and metropolitan hospitals with broad data on change patterns associated with resource utilisation or the provision of acute health services. The majority of hospitals that indicated a lack of information systems were predominantly the smaller hospitals located in the rural areas.

Views of the Department, networks and hospitals

Has the Department established formal links between its Acute Health and Public Health Divisions to permit the exchange of research data in relation to the acute health needs of Victorians?	Yes ✓ No

Has your organisation an information system that provides it with details such as the change patterns of resource utilisation and changes in acute health service provision within its hospital system?

	Yes	*No*	*No response*
Networks	5 (84%)		1 (16%)
Metropolitan hospitals	9 (69%)	4 (31%)	
Rural hospitals	16 (34%)	31 (66%)	

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

6.80 Five of the 6 networks and the majority of metropolitan hospitals maintained an information system which disclosed relevant details such as change patterns of resource utilisation and changes in acute health service provision. The majority of hospitals that did not have an information system disclosing relevant changes were located in the rural areas.

Do you undertake utilisation reviews, e.g. inappropriate admissions, length of stays, overuse of theatres (a)?

	Yes	*No*	*Other (b)*
Networks	6 (100%)		
Metropolitan hospitals	12 (92%)	1 (8%)	
Rural hospitals	24 (51%)	22 (47%)	1 (2%)

(a) Operating theatres may on some occasions be excessively used for less serious procedures which reduces the availability of these theatres for the more serious cases.
(b) "Other" comprises either "No response," "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

6.81 In terms of improving access, action taken by various networks and hospitals as a result of utilisation reviews consisted of a wide range of measures which included:

- feedback provided to admitting and treating doctors and to other clinical staff;
- audits conducted at the departmental level to identify areas for improvement;
- development of education and clinical protocols;
- the conduct of clinical reviews of length of stays, theatres and operations;
- strategies leading to improved efficiencies to network standards; and
- introduction of care paths, discharge planning and pre-admission clinics.

Determining the appropriate range and volume of services

Overall audit comment

6.82 Audit was advised that a major task for the Department's Acute Health Division in 1997-98 will involve the analysis of resource distribution and utilisation. Networks also have a role in redesigning services while rural regions are involved in long-term planning. Any reallocation will be aimed at improving patient access to services.

6.83 The Department may need to reconsider its position of not monitoring major trends in hospital ward and bed closures if it can be demonstrated that these closures adversely impact on the availability of appropriate acute health services.

6.84 The Department has been very active in monitoring throughput, financial performance and waiting times for hospitals as well as undertaking several service reviews.

Views of the Department, networks and hospitals

It is well recognised that there are significant variations in age/sex standardised utilisation rates of hospital services between regional areas in the State. Has this been addressed by the Department? Does casemix have a role in addressing these differences?

6.85 The Department advised that "variation in utilisation rates is itself a complex matter involving:

- the rate of utilisation of private, not just public, facilities;
- possible differences in underlying morbidity patterns - particularly between rural and metropolitan areas;
- the availability of alternative services - again, particularly in rural areas;
- socio-economic and cultural differences, in turn influencing morbidity and private versus public utilisation; and
- variation in provider (especially doctor) distribution and behaviour.

"The Department already uses a weighted population funding formula for Aged Care and Mental Health Services, but outputs for these programs are far more specifically prescribed by the Department than is possible, or sensible, for Acute Health. As part of its major tasks in the forthcoming year, the Acute Health Division of the Department is analysing the distribution and utilisation of resources, taking into account the above factors. This is likely to lead to future reallocation but developing a strategy for this to occur is premature. Any reallocation will be on the basis of improving patient access to services, as outlined for metropolitan Melbourne in the Metropolitan Health Care Service Plan.

"Even so, current policy provides for network-wide targets with campus reporting, which allows networks to redesign services according to local priorities, with appropriate accountability, within a State context.

"In 1997-98 rural regional aggregate targets were introduced to guarantee greater attention to local differences and complexities. This reflects the Department's restructure which gives greater responsibility to regions in the management and longer-term planning of all human service providers in their regions".

What has been the impact on the availability of individual acute health procedures and treatments across hospitals since 1 July 1993 following the introduction of casemix and budget cuts? How many hospitals have closed wards or terminated services since 1 July 1993 where either funding through the casemix formula has not been sufficient or the impact of micro-economic reforms has necessitated such action? Alternatively, have any services expanded and if so, are these services in response to demand or to other considerations?

6.86 The Department indicated that "since July 1993, it has focused on outputs of hospitals rather than inputs and has therefore not monitored closing of wards. Nor has there been close and systematic monitoring of individual services at individual hospitals. Hospitals and their clinical staff have been given responsibility to provide services without detailed departmental instructions.

"The Department has, however, monitored the overall output units from individual hospitals or networks against targets, as well as numbers of patients on waiting lists and performance under the Emergency Enhancement Scheme.

"The increase in the number of patients treated (separations) and the number of output units, together with the reduction in numbers on the urgent and semi urgent waiting lists are good indicators that services have significantly increased since before casemix.

"The Victorian Inpatient Minimum Dataset provides details of changes in particular types of treatment and regular review of this data has been undertaken".

How has the Department monitored trends in hospital activity since the introduction of casemix funding to ensure that any significant gaps in the provision of hospital services are adequately managed to provide satisfactory access to any particular group or to people in particular regions?

6.87 The Department advised that "it routinely monitors hospital throughput activity and financial performance as reported on its Victorian Inpatient Minimum Dataset and hospital Agency Information Management Systems. Standard reports are provided regularly to hospitals and networks. In addition, hospitals may submit special requests for data and reports.

"Waiting times for elective surgery and emergency care are also monitored routinely by the Department. The *Hospital Services Report*, published quarterly by the Department, contains a wide range of data about the health care system, including private health insurance, hospital throughput, waiting lists, emergency department activity, ambulance bypass and unplanned readmissions.

"A number of service reviews have been undertaken or are currently in progress including critical care, lithotripsy, radiotherapy and outpatients".

Does your organisation make decisions on the appropriate range and volume of acute health services?

	Yes	*No*	*na*
Networks	5 (83%)		1 (17%)
Metropolitan hospitals	11 (85%)	2 (15%)	
Rural hospitals	40 (85%)	4 (9%)	3 (6%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

How are decisions on the appropriate range of acute health services arrived at?

6.88 Networks and hospitals make decisions on the appropriate range of acute health services through a variety of different means, including:

- examining the health needs of the catchment population, identifying gaps in service provision and determining strategies to address these gaps;
- liaison with clinicians involving consultation with advisers in particular clinical disciplines; and
- preparing a network plan and a clinical business unit plan.

How are decisions on the appropriate volume of acute health services arrived at?

6.89 In determining the appropriate volume of acute health services, some of the more common measures adopted by networks and hospitals include:

- giving consideration to patient needs and demographic trends, waiting lists which reflect demand and output funding availability; and
- negotiating with clinicians and the Department.

Appropriateness of services in terms of timeliness and geographic access

Overall audit comment

6.90 A range of suggestions were made by networks and hospitals to improve access in terms of timeliness and geographic location.

Views of networks and hospitals

In terms of timeliness and geographic access, what other policy instruments or mechanisms apart from casemix could be utilised to improve any inequities of access to acute hospitals?

6.91 In terms of timeliness and geographic access, other policy instruments or mechanisms suggested by networks and hospitals include:

- appropriately rigorous planning processes, taking account of demographic trends, to ensure that acute hospital services are placed in areas of greatest patient need;
- planning policies including the introduction of population-based funding, adjusted for age and socio-economic conditions;
- co-ordinating care with community services, general practitioners and aged care facilities;
- introducing a single funding source between the State and Commonwealth Governments;
- implementing greater flexibility in funding and providing greater ability to negotiate; and
- focusing on outpatient waiting times through bonus payments.

Appropriateness of access provided to particular groups of patients

Overall audit comment

6.92 The audit disclosed that networks and the majority of hospitals ascertain the underlying causes for significant variations in hospitalisation rates for their respective catchment areas. However, since the introduction of casemix, admission practices have changed in some hospitals to encourage an increase in throughput for the following groups of patients:

- those who are privately insured; or
- those who are more highly rewarded under casemix.

6.93 Such practices infer that patients may be selected for admission based on financial considerations rather than clinical need.

6.94 These aspects should be reviewed by the Department using available data such as utilisation rates for clinical procedures and trends in access for privately funded versus non-insured patients.

Views of networks and hospitals

Are there significant variations in hospitalisation rates in your catchment area?

	Yes	*No*	*DK*
Networks	4 (66%)	1 (17%)	1 (17%)
Metropolitan hospitals	2 (15%)	2 (15%)	9 (70%)
Rural hospitals	14 (30%)	9 (19%)	24 (51%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

If Yes, does your organisation ascertain the underlying causes of the variations?

	Yes	*No*
Networks	4 (100%)	
Metropolitan hospitals	1 (50%)	1 (50%)
Rural hospitals	9 (64%)	5 (36%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

If Yes, has your organisation implemented any initiatives to restrict the provision of inappropriate services?

	Yes	*No*
Networks	1 (25%)	3 (75%)
Metropolitan hospitals	1 (100%)	
Rural hospitals	5 (56%)	4 (44%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Have any admission practices changed at the hospital since 1 July 1993 to encourage an increase in throughput for a particular class of patients?

	Yes	*No*	*Other (a)*
Metropolitan hospitals	5 (38%)	8 (62%)	
Rural hospitals	14 (30%)	30 (64%)	3 (6%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

6.95 According to the responses by hospitals, particular patient groups have experienced greater access. Examples given included the following:

- Same Day stay patients;
- privately insured patients and those covered by WorkCare or Veterans' Affairs;
- patients whose illnesses are more highly rewarded under casemix; and
- category 1 and 2 waiting list patients.

Monitoring the level of hospitalisation for particular diagnosis related groups

Overall audit comment

6.96 While monitoring occurred at a central level, the extent to which hospitalisation for particular patient groups was monitored by networks and hospitals varied.

Views of the Department, networks and hospitals

Does the Department monitor the types of acute services that are provided by individual public hospitals?	Yes ✓
	No

Is casemix funding withheld until Hospital Services Agreements are entered into between hospitals or networks and the Department of Human Services?	Yes
	No ✓

Do you agree or disagree with the following statement

	Agree	*Disagree*	*DK*
"The levels of hospitalisation for particular Diagnosis Related Groups are monitored"			
Networks	4 (67%)	2 (33%)	
Metropolitan hospitals	7 (54%)	5 (38%)	1 (8%)
Rural hospitals	26 (55%)	20 (43%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

In relation to hospitals in your network, does the network identify hospitals with unusually high admission rates for individual Diagnosis Related Groups?

	Yes	*No*	*na*
Networks	4 (67%)	1 (17%)	1 (16%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Does your hospital review regional variations in admission rates for particular treatments?

	Yes	*No*	*na*
Metropolitan hospitals	6 (46%)	7 (54%)	
Rural hospitals	18 (38%)	27 (58%)	2 (4%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Part 7

Efficiency Gains

OVERVIEW

7.1 On the basis of the available performance information maintained by the Department of Human Services hospitals have become more efficient since the introduction of the major government reforms in 1992-93 and 1993-94 as they have had to become more conscious of reducing costs and increasing throughput. Certain financial indicators suggest that significant efficiency gains have been achieved in the 5 years to 1996-97, e.g. the average cost per patient has decreased by $1 047 or 28 per cent over this period. In addition, according to the Department interstate comparisons show that Victoria's costs per casemix adjusted separation are some $160 below that of the rest of Australia. It is also important to recognise that between 1990-91 and 1996-97 the average length of stay for all Multi-Day and Same Day patients in metropolitan hospitals has reduced by 1.55 days or 27 per cent. Audit is of the view that the actual rate of increase in efficiency, although substantial, was less than that claimed by the Department due to changes in patient definition and the more stringent counting of separations.

7.2 All networks and the majority of hospitals (92 per cent) claimed that staff productivity has improved under casemix funding and budget cuts. In addition, all networks confirmed that clinical practices had changed to improve productivity within their network. Numerous comments were received by audit along the lines that hospitals have achieved more with less resources.

7.3 The average length of stay was declining prior to casemix, however, more rapid decreases occurred in the 2 years following the introduction of casemix. This was attributable to changed hospital practices, improved medical technology and increased service substitution.

7.4 In analysing the quantitative data available, it is not possible to attribute the efficiency gains achieved in the acute health sector entirely to the Government's economic reforms and that there are various drawbacks to these gains. For example:

- Although increased throughput signifies greater access to acute hospital services and generally shorter waiting times, the fact that a substantial component of the increase related to day surgery and day medical procedures means that associated benefits are predominantly confined to that narrow group of patients whose illnesses can be treated on a Same Day basis;
- While the increase in Same Day services is due to changes in clinical practices and technology, it has also been acknowledged by the Department that there has been some redefinition of services which has increased the number of inpatients previously categorised as outpatients. Access to non-Same Day services, however, has remained relatively static since the introduction of casemix;

OVERVIEW *- continued*

- Audit has some reservations regarding the recording and counting of separations by hospitals prior to casemix. For example, the recording of separations was less stringent due to funding based on a historical rather than output basis. There have been significant increases in separations for cancer, renal disease and new borns, yet the incidence of these illnesses and childbirth has not increased;
- In terms of the workload on managers, a common complaint expressed to audit was that a substantial amount of time was consumed in examining ways to arithmetically optimise funding which would have been better spent on patient care;
- Some hospitals have drawn on capital reserves and profits from business units to meet recurrent funding shortfalls; and
- One-third of networks and almost two-thirds of hospitals treated extra patients who had not been funded by the Department. Such a situation, which cannot be sustained in the long-term as reserves continue to decline, accentuates the financial pressures on hospitals and is likely to adversely impact on quality of care and patient access in the future.

7.5 One measure that could be adopted more widely throughout the hospital sector is to include in employment contracts a requirement for senior managers to achieve performance targets for acute health services that are detailed in the Health Service Agreements between the Department and the hospitals. Half of the networks and 6 per cent of rural hospitals have already included such a requirement in employment contracts.

7.6 Opinion was found to be divided between networks on whether there were any major barriers to achieving improved service efficiency. In comparison, two-thirds of hospitals acknowledged the existence of major barriers. Examples cited by networks and hospitals included industrial factors, community opposition, insufficient capital funds and the time span involved in changing cultures and historic work practices.

7.7 In eliciting views on the potential for greater use of service substitution to achieve further efficiency savings the Department advised that the fragmented nature of the health care system will dictate the respective financing arrangements that will permit the substitution of care. Four out of the 6 networks and one-third of hospitals felt that further efficiency savings were possible at their hospitals through service substitution. Audit has made some suggestions to address the integration of funding arrangements to permit greater service substitution within and outside of the hospital setting.

OVERVIEW *- continued*

7.8 According to the Department even with service substitution, demand will continue to increase. In terms of managing this important feature of acute health delivery, it was pleasing to find that all networks and the majority of hospitals conduct community health needs analyses to assess which treatments or services can be better delivered outside the acute hospital setting.

7.9 The audit disclosed that casemix funding and micro-economic reforms have, to some extent, contributed to a worsening of the financial position of certain networks and hospitals. Since 1993-94, there has been a significant decline in the net current assets (current assets less current liabilities) and operating surpluses of health care networks and hospitals. Increasingly, networks and hospitals have been required to rely on donations to assist in funding equipment and research. The Department also has provided financial assistance to a number of networks and hospitals. The sustainability of this course of action is open to question. If this trend continues, substantial injections of funds by the Government will continue to be required to maintain the viability of a number of networks and hospitals. According to the Department, the industry remains generally viable, notwithstanding the deterioration in the financial performance of certain networks and hospitals.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

Audit's suggestion (paragraph 7.4) that the productivity benefits have accrued to a narrow group of patients whose illnesses can be treated on a Same Day basis demonstrates a misunderstanding regarding efficiency gains in public hospitals. Efficiency gains in public hospitals i.e. the ability to treat more patients for the same or less expenditure, means that the public hospital system as a whole can make budget savings required without reducing services. Benefits cannot be "marked" to individual patients.

The last dot point asserts links between unfunded patients treated, a decline in reserves and a likely adverse impact on quality of care and access in the future. Such assertions are not supported, and out of place in this discussion of measurement of productivity. Paragraphs 7.69 and 7.70 show that half of the networks and one-third of rural hospitals did not see any barriers to achieving further service efficiencies.

MAJOR EFFICIENCY GAINS ACHIEVED BY HOSPITALS

Overall audit comment

7.10 In comparing the position in 1996-97 with 1991-92, information provided by the Department shows that productivity gains of 25 and 28 per cent have been achieved in the recurrent cost per WIES and separation, respectively. Over this same period, throughput has increased by 30 per cent. In addition, according to the Department interstate comparisons show that Victoria's costs per casemix adjusted separation are some $160 below costs in the rest of Australia. The Department has acknowledged that measurement of efficiency over a 5 year time span poses some estimation issues such as those related to budget and output definitions e.g. the measurement of outpatients. The Department's figures have not been reclassified to reflect these changes.

7.11 The information provided by the Department includes both Commonwealth and State Government funding for acute health. The scope of the audit did not cover an examination of trends between Commonwealth and State funding contributions to acute health. During the 5 year period (1991-92 to 1996-97) there has been an overall increase in the net cost of acute health outlays of $201 million. However, in interpreting the extent of the increased funding it is important to acknowledge that for the purpose of raising departmental awareness of assets they control and the costs associated with their retention, from 1 July 1994 the Victorian Government introduced a capital charge. This charge was levied on each department's State-funded capital outlays, however, departments were fully compensated for the charge to prevent any adverse impact on service delivery. As such, any comparison of the trend in acute health funding needs to be discounted by the inclusion of this notional charge as from 1 July 1994. In broad terms the capital charge for the total period 1 July 1994 to 30 June 1997 amounted to approximately $33 million.

7.12 Audit was advised by networks and hospitals that between 1 July 1993 and 30 June 1997 major efficiency gains have been achieved in a wide range of areas in terms of throughput, productivity, the length of stay for patients and expenditure.

7.13 In interpreting departmental performance-related information such as increased throughput, the achievements in efficiency gains, while substantial, need to be viewed in the light of certain changes in output definitions and better counting practices that have occurred over the period. One of the benefits of casemix is that the counting and classification of data has improved.

Views of the Department, networks and hospitals

Does the Department monitor the efficiency of networks and hospitals in terms of the achievement of output targets?	Yes No	✓

What have been the total productivity gains achieved by public hospitals since 1 July 1993?

TABLE 7A
EFFICIENCY OF HOSPITAL SERVICES

	Acute Health Current Outlay (a)			*Hospital Current Outlays (b)*			*Throughput (c) (% change)*			
	Total	*Revenue*	*Net cost*	*Total*	*Revenue*	*Net cost*	*Separations*		*WIES 3*	
	($m)	*($m)*	*($m)*	*($m)*	*($m)*	*($m)*				
1991-92	2 433	367	2 066	2 333	296	2 037	676 100		594 968	
1992-93	2 285	351	1 934	2 170	278	1 892	679 000	0.4%	621 500	4.5%
1993-94	2 223	343	1 880	2 113	277	1 836	766 700	12.9%	667 500	7.4%
1994-95	2 254	315	1 939	2 139	249	1 890	838 200	9.3%	718 500	7.6%
1995-96	2 498	300	2 198	2 371	233	2 138	858 700	2.4%	724 000	0.8%
1996-97 budget*(e)*	2 563	296	2 267	2 432	229	2 203	876 000	2.0%	741 000	2.3%
4 year change	278	-55	333	262	-49	311	197 000	25.0%	119 500	20.3%
5 year change	130	-71	201	99	-67	166	199 900	27.0%	146 032	22.6%

	Cost per separation (d) (% change)				*Cost per WIES (d) (% change)*			
	Nominal dollars		*Constant 1995-96 prices*		*Nominal dollars*		*Constant 1995-96 prices*	
1991-92	3 450		3 769		3 920		4 283	
1992-93	3 196	-7.4%	3 460	-8.2%	3 492	-10.9%	3 780	-11.7%
1993-94	2 756	-13.8%	2 933	-15.2%	3 166	-9.3%	3 369	-10.9%
1994-95	2 552	-7.4%	2 618	-10.8%	2 977	-6.0%	3 054	-9.4%
1995-96	2 761	8.2%	2 761	5.5%	3 275	10.0%	3 275	7.2%
1996-97 budget (e)	2 776	0.5%	2 722	-1.4%	3 282	0.2%	3 218	-1.7%
4 year change	-420	-13.1%	-738	-21.3%	-210	-6.0%	-562	-14.9%
5 year change	-674	-19.5%	-1 047	-27.8%	-638	-16.3%	-1 066	-24.9%

(a) Source: Government Budget Paper, No. 3

(b) Hospital outlays comprise total acute current outlays less ambulance outlays.

(c) Casemix fundable WIES, includes Heidelberg Repatriation Hospital from 1994-95.

(d) Inpatient services account for about 70 per cent of acute health hospital services. Other services include outpatients and training and development which have not been consistently measured over the whole period.

(e) Rollover funds for Heidelberg Repatriation Hospital of $60m excluded.

(f) According to the Department, actual separations for 1996-97 are in excess of 890 000. Estimated separations for 1997-98 are 897 000.

Source: Department of Human Services.

7.14 The Department provided the following information in regard to the productivity and efficiency gains in networks and hospitals:

"The Department's main measure of productivity of the public hospital system has been to compare recurrent funding per separation or per WIES using constant 1995-96 prices. On this basis, efficiencies of 25 to 28 per cent have been achieved in the 5 years to 1996-97. This level of efficiency reflects the high level of costs operating in the system in the early 1990s. The Department currently uses data published by the Steering Committee for the Review of Commonwealth/State Service Provision to compare Victoria's costs of hospital service provision with those from interstate. These reports, which commenced in 1995, include costs per separation, utilisation rates, and other components provide a good basis to compare Victoria's recent performance with public hospital systems interstate.

"The latest available data show that Victoria's costs per casemix adjusted separation are some $160 below the costs in the rest of Australia. This is a significant turnaround from data presented by the Victorian Commission of Audit in its report of May 1993, which showed that Victoria's hospital costs were 18 per cent more expensive than New South Wales based on Commonwealth Grants Commission data, and that savings of $440 million were achievable."

"Measurement of efficiency over the 5 year time span raises a number of estimation issues such as consistency of budget and output definitions. Not all hospital outputs, such as outpatients and training development, have been consistently measured over the period. It is recognised that some hospitals have reduced outpatient services and changed admission practices, particularly in 1993-94. No attempt has been made to detail such reclassification."

"On an ongoing basis, key performance benchmarks are ascertained by comparing Victorian public hospitals against those interstate, and with private sector equivalents where possible."

From 1 July 1993 to 30 June 1997, please identify the major efficiency gains (for example taking into account the productivity improvement targets set by the Government, micro-economic reforms, superannuation and wage increases).

7.15 Hospital management in 85 per cent of cases claimed that efficiency gains had been achieved, however, 9 hospitals (15 per cent), which included a large teaching hospital and a large metropolitan hospital, claimed that there were no efficiency gains achieved.

7.16 Broadly speaking, major efficiency gains have been achieved through:

- higher patient throughput;
- productivity gains (e.g. less staff per patient); and
- shorter length of patient stay per hospital procedure.

7.17 A wide variety of measures were identified as having been implemented throughout networks and in specific hospitals. These include the following:

- increased day surgery;
- reduction in the number of acute beds;
- agency and ward amalgamations;
- reduction in non-clinical costs arising from the establishment of networks and rationalisation of services;
- infrastructure redesign;
- improved rostering of staff;
- review of all levels of purchasing services, stores and insurance;
- outsourcing of security and diagnostic services such as radiology and pathology;
- changes to patient and bed management policies;
- changes to clinical practices;
- introduction of a regethermic catering system (e.g. pre-heated meals using new baking technology);
- introduction of co-generation;
- less funds spent on hotel support;
- less expenditure on administration; and
- visiting medical officer fees capped by agreement.

7.18 In interviews with network and hospital Chief Executive Officers, there was general agreement that hospital management more closely considered the efficiency of activities because casemix:

- paid a standard unit price for a relatively consistent group of defined hospital services; and
- strongly linked the cost of providing acute health care with pre-determined payment levels.

7.19 Audit was advised that this was particularly relevant at the commencement of casemix when the acute health system in Victoria was regarded by the Victorian Commission of Audit as comparatively less efficient than other State systems.

Industry submission

7.20 The following extract of a submission provided to audit by an industry group comments on efficiency-related matters:

> "The Department of Human Services figures show that virtually the entire apparent increase in throughput during the casemix period has occurred in day procedures (day surgery and day medical procedures such as endoscopies and gastroscopies). The proportion of Same Day throughput has increased markedly over the period by about 40 per cent in public hospitals. Although the rate of growth in day cases has slowed significantly (after the trend jump in 1992 to 1994), it is likely the proportion of day cases will continue to grow as surgical techniques continue to improve, shorter stay for obstetrics gains acceptance in the community and alternative care modes become more common.

"The assertion which is frequently made that the number of patients treated annually has increased from about 650 000 to more than 800 000 since the introduction of casemix, needs further analysis. For example, since the introduction of casemix why has there been a substantial increase in the number of separations for renal dialysis which implies a large increase in either the treatment of existing renal disease or the diagnosis of new renal disease, while the rate of inpatient admissions for the treatment of renal disease has only increased marginally. Perhaps there was a change in the way separations were counted? Similarly, the number of oncology/radiology separations have increased significantly without such a huge and presumably identifiable increase in the actual incidence of cancer. Unless there has been a significant change in neonatal practice, why should admissions increase at a much higher rate than that of births".

"An important (and related) impact of casemix has been on length of stay. Length of stay is an important factor in the overall cost and efficiency of a hospital. During the period 1992 to 1996 the rate of decline in length of stay accelerated sharply. This is not necessarily a bad thing. A shorter length of stay improves overall access to the system by allowing higher throughputs. The proportion of day and day+1 stay surgery has increased sharply, although we are not yet at world best practice (which is for about 60 per cent of surgery to be accomplished on a day or day+1 basis). This is not clinically desirable but highly popular with patients and has been greatly facilitated by the rapid diffusion of laparoscopic (keyhole) surgical techniques throughout the State. Unfortunately, shorter stays can actually increase overall costs, because most of the costs of an admission are, on average, incurred during the early part of the stay: convalescence is (relatively) cheaper. By encouraging higher throughputs with a shorter length of stay, additional cost pressures have thus arisen, exacerbating difficulties caused by the initial budget reductions".

"The apparent reduction in average length of stay may also partly be due to changes in counting practice: previously some one day patient episodes were not counted as inpatient admissions but were treated separately or counted as outpatient services".

"There has been considerable public debate about allegations that patients are being discharged "quicker and sicker". While there is some anecdotal evidence of difficulties, discharge planning has improved significantly since the mid-1980s, although there is evidence that it could be improved still further. There are certainly dangers in a system which encourages inappropriate discharge but the average period at the end of which patients can safely be discharged has been falling steadily for many years. Advances in diagnosis, drug therapies, treatment processes, surgical techniques and other aspects of treatment mean that in many areas of medicine treatment effectiveness has improved significantly. One of the major impacts has been the widespread diffusion of laparoscopic surgery, which greatly reduces length of stay and post-operative convalescence by reducing the systemic impact of major surgery. In other words surgeons can perform necessary surgery by using a small incision and fibre-optic lights and associated surgical equipment rather than making large incisions in the traditional way. Other changes to technical procedures and improved drug therapies have meant patients do not need to stay in hospital as long as once was the case. Where once patients with major orthopaedic surgery would stay in hospital for many months, with all the risks of muscle degeneration, bed sores etc. they can now be up and about in weeks. In the United States of America, it is now not uncommon for patients to be able to leave hospital within 7-10 days after major heart surgery.

"However, it is clearly important for necessary support services, especially home nursing, to be highly developed. While improvements here might be cited as ad hoc, hospitals, private organisations, Home and Community Care, funded agencies such as local government and the Royal District Nursing Service, which provides home nursing services, all play a role in ensuring these services exist and are used appropriately."

Major efficiency gains by hospitals

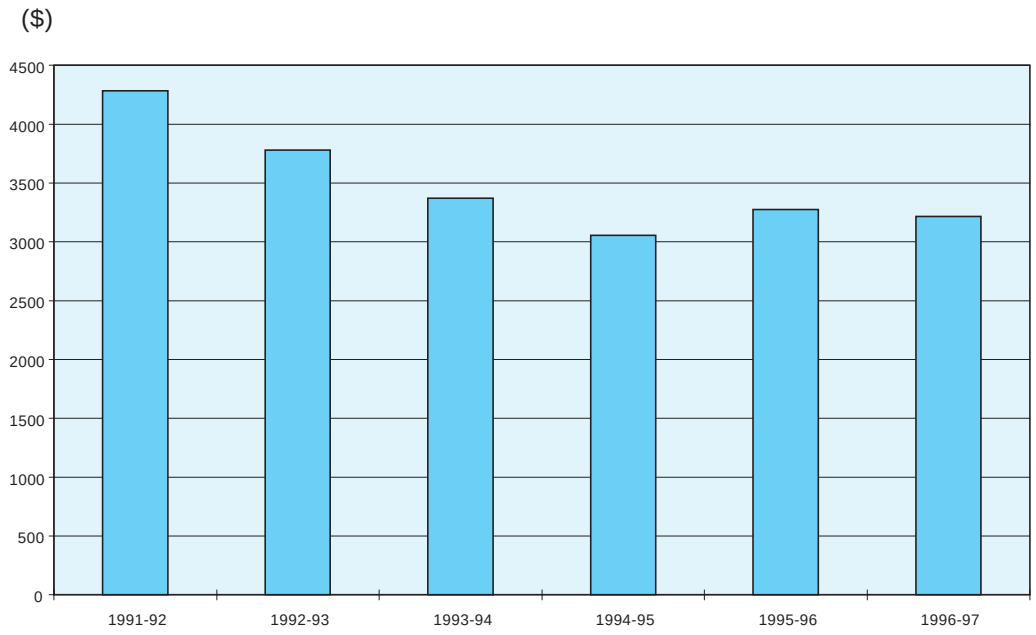
7.21 According to departmental information, efficiency gains in Victoria's hospital system in terms of increases in throughput and reductions in cost have been substantial over the past 5 years. As indicated earlier in Table 7A, over the 5 year period (1991-92 to 1996-97), current outlays (in constant dollars) by the Government for acute health services have increased by 8 per cent, throughput has increased by 27 per cent (199 900 separations) and cost per separation has fallen by $1 047 or 28 per cent.

7.22 Table 7A also shows that the cost per WIES (version 3) in constant 1995-96 dollars has declined by $1 066 or 24.9 per cent since 1991-92. Audit was advised by the Department that Victoria's cost per casemix adjusted separation for 1996-97 is $160 or 7 per cent below that of other States in Australia.

7.23 Audit's view is that the departmental information should be viewed as broadly indicative of efficiency improvements in the hospital system as the extent of the rate of increase in the number of patients treated claimed by the Department is overstated by factors such as the redefinition of outpatients to inpatients. These factors have been discussed in detail in Part 10 of this Report.

7.24 Chart 7B shows the trend in the cost per WIES from 1991-92 to 1996-97 adjusted to reflect 1995-96 dollars.

CHART 7B
COST PER WIES (VERSION 3) 1991-92 TO 1996-97
(1995-96 dollars)



Source: Department of Human Services.

7.25 As can be seen from the above chart, although substantial efficiency gains were achieved by hospitals in the years preceding and directly following the introduction of casemix funding in 1993-94, the trend ceased after 1994-95 at the time of increased hospital funding. Audit was advised by the Department that the key reason for this trend was that had been pay increases to doctors, nurses and other staff in 1995-96 which cost about $120 million (equivalent to $170 per WIES). This trend could also suggest that:

- hospitals had reached the “margin of diminishing returns” where further efficiency gains would be more difficult to achieve;
- the technical efficiency of the casemix funding system could not by itself be expected to achieve ongoing cost savings; and
- increases in acute health funding were absorbed in the cost of treating patients.

7.26 In view of the extent of the efficiencies gained over the past 5 years, the Department should now place greater emphasis on monitoring and evaluating the quality of hospital services.

STAFF PRODUCTIVITY

Overall audit comment

7.27 All networks and virtually all hospitals were unanimous in confirming that staff productivity had improved in their organisations since the introduction of casemix funding and budget cuts.

Views of networks and hospitals

Do you agree or disagree with the following statement:
"Staff productivity has improved in hospitals under casemix funding and budget cuts".

	Agree	*Disagree*	*Other (a)*
Networks	6 (100%)		
Metropolitan hospitals	11 (85%)		2 (15%)
Rural hospitals	44 (94%)	3 (6%)	

(a) "Other" comprises either "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

METROPOLITAN HOSPITALS THAT HAVE ACHIEVED INCREASED EFFICIENCY

Overall audit comment

7.28 The extent to which efficiency had increased since the introduction of casemix and micro-economic reforms was found to be widespread throughout metropolitan hospitals.

Views of the networks

What proportion of hospitals in the network have achieved increased efficiency under casemix funding and the micro-economic reforms?

	All hospitals	*Most hospitals*	*A minority of hospitals*	*No hospitals*
Networks	5 (83%)	1 (17%)		

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

PATIENTS TREATED BY HOSPITALS AND NOT FUNDED UNDER CASEMIX

Overall audit comment

7.29 One-third of networks and approximately 60 per cent of hospitals treated extra patients who had not been funded by the Department under the casemix payment system due to budgetary limitations. Such a situation heightens the financial pressures under which hospitals operate. This issue also has major implications for quality of care and patient access in the future. As hospital financial reserves decline, the hospitals' capacity to treat extra patients not funded under casemix is placed under further pressure.

Views of networks and hospitals

Have hospitals (in your network) treated extra patients who have not been funded by the Department?

	Yes	*No*	*DK*
Networks	2 (33%)	4 (67%)	
Metropolitan hospitals	8 (62%)	5 (38%)	
Rural hospitals	28 (60%)	18 (38%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

7.30 The main funding sources for patients, who were not funded under the casemix payment system, were:

- hospital financial reserves;
- profits from hospital business units;
- capital funds; and
- surpluses derived from nursing home bed funding.

If extra patients have been treated, what has been the impact on the organisation's budget? What has been the impact on the delivery of other hospital services to the community?

7.31 One network claimed that the impact of treating extra patients not funded under casemix has been a reduction in non-direct patient care areas such as interpreter services and social welfare counselling. Furthermore, several hospitals claimed that the treating of extra patients resulted in:

- a reduction in the budget available for other hospital services;
- an operating deficit for the year; and
- reduced flexibility in responding to patients' needs.

PERFORMANCE TARGETS NOT SPECIFIED IN EMPLOYMENT CONTRACTS

Overall audit comment

7.32 The extent to which performance targets for acute health services detailed in Health Service Agreements were also specified in employment contracts was found to be variable across the acute health sector. Opportunities exist to standardise practices in this regard.

Views of networks and rural hospitals

Are the performance targets for acute health services detailed in the networks' and hospitals' Health Service Agreement also specified in employment contracts?

	Yes	*No*
Networks	3 (50%)	3 (50%)
Rural hospitals	3 (6%)	44 (94%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

7.33 Some networks advised audit that targets for acute health service delivery were included in employment contracts or agreements with senior executives and medical staff. Two hospitals advised that global reference is included in Chief Executive Officer and senior executives' service contracts, while another hospital referred to visiting medical officer contracts.

CHANGES TO CLINICAL PRACTICES TO IMPROVE PRODUCTIVITY

Overall audit comment

7.34 With the exception of some country-based hospitals, a variety of methods have been employed by networks and hospitals to change clinical practices in order to improve productivity such as a focus on reducing the length of stay. In relation to the significant reduction of 27 per cent in the average length of stay for the total of all Multi-Day and Same Day patients between 1990-91 and 1996-97, the most rapid decrease occurred in the first 2 years following the introduction of casemix.

Views of networks and hospitals

Have clinical practices been changed to improve productivity within your network or hospital?

	Yes	*No*	*DK*
Networks	6 (100%)		
Metropolitan hospitals	13 (100%)		
Rural hospitals	32 (68%)	14 (30%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

7.35 Various ways in which clinical practices have changed to improve productivity are outlined below:

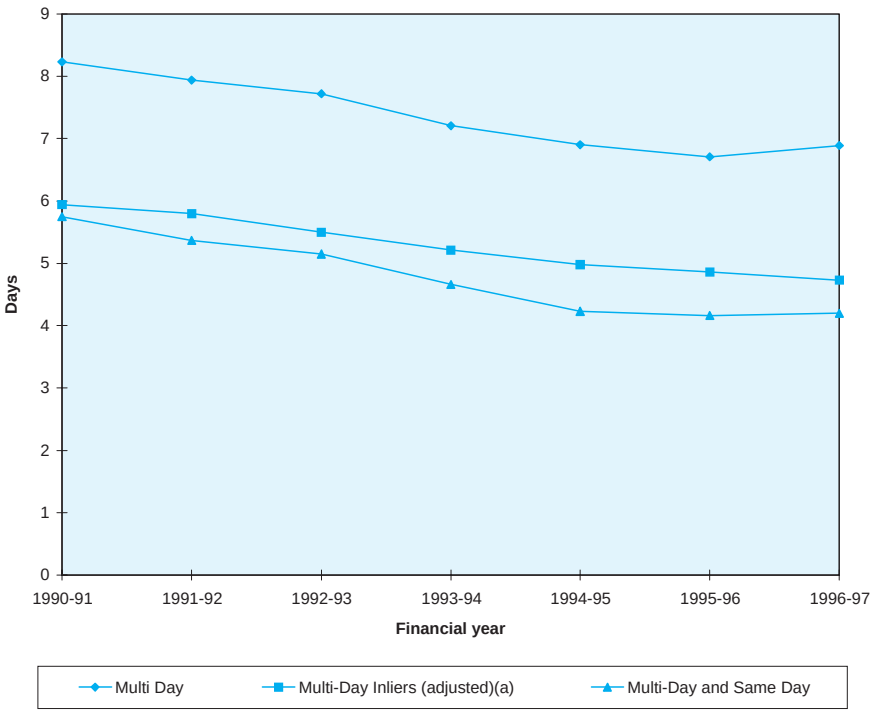
- an increase in Same Day admissions through a greater use of Same Day surgery;
- a greater focus on continuity of care;
- introduction of clinical pathways;
- a greater focus on planning for an early discharge;
- an increased use of pre-admission clinics;
- improved service co-ordination;
- an increase in technology which reduces length of stay;
- continuous review of all processes in clinical practice;
- the implementation of the Hospital in the Home Program;
- less direct time spent with patients by staff;
- ward amalgamation; and
- greater monitoring of drug usage.

Trends in average length of stay for Multi-Day and Same Day patients

7.36 Length of stay is one of the major cost drivers in a hospital with most costs associated with 24 hour nursing and medical staff input. Since an occupied hospital bed is funded under the formula for the average cost of the Diagnosis Related Group into which the patient's diagnosis is classified, there is an incentive for hospitals to maintain or reduce the average length of stay. In other words, if a hospital can treat a patient at a cost which is less than the average, then the hospital gains financially. In contrast, a patient who exceeds the average length of stay results in the hospital suffering a financial disadvantage.

7.37 Chart 7C shows the trends in the average length of stay for Multi-Day and Same Day patients in metropolitan hospitals. Trend data indicates that average length of stay fell from 1990-91 to 1994-95 with the most rapid decrease occurring in the 2 years following the introduction of casemix funding in 1993-94. Average length of stay has remained relatively constant since 1995-96.

CHART 7C
AVERAGE LENGTH OF STAY FOR METROPOLITAN HOSPITALS
1990-91 TO 1996-97



(a) Adjusted for casemix changes by setting the number of Multi-Day separations with each Diagnosis Related Group at the 1994-95 level.
Note: "Multi- Day" patients stay in hospital for more than one day. "Inliers" are patients whose length of stay is within the average expected for their patient group.
Source: The Department of Human Services.

7.38 The significant reduction of 1.55 days (27 per cent) in average length of stay for the total of all patients (i.e. Multi-Day and Same Day) from 1990-91 to 1996-97 is largely attributable to the relative increase in Same Day throughput. That is, in addition to the incentive under casemix to discharge patients sooner, increased service substitution (i.e. the substitution of Multi-Day with other more appropriate and less costly Same Day forms of care), improving medical technology and changing clinical practices have also contributed to the large decline in length of stay since 1990-91. Between 1990-91 and 1996-97 the average length of stay for Multi-Day inliers, when adjusted for casemix, fell by 20 per cent from 5.9 days to 4.7 days.

7.39 The substitution of Multi-Day care with Same Day services resulted in an increase in the proportion of Multi-Day patients in networks and hospitals with relatively more complex conditions. According to departmental information, this is due to the selection of less complex patients from the potential Multi-Day stay category, i.e. those with expected stays of 2 or 3 days, for Same Day treatment. The increase in complexity of illnesses of Multi-Day patients was found to have occurred following the implementation of casemix funding in July 1993.

POTENTIAL FOR GREATER USE OF SERVICE SUBSTITUTION

Overall audit comment

7.40 While two-thirds of networks and almost half of metropolitan hospitals considered that further efficiency savings are possible through service substitution, the Department provided various qualifying comments on this particular issue.

7.41 Community needs analyses are conducted by all networks and two-thirds of the rural hospitals to assess which treatments or services can be better delivered outside the acute hospital setting.

7.42 With regard to substituting care within the Acute Health Program the audit disclosed that, while the rate of increase in Multi-Day separations has remained at constant pre-casemix levels, most of the growth has arisen from Same Day services which grew by approximately 64 per cent from 1 July 1993 to 1 July 1997.

7.43 In terms of substituting acute care for non-acute care, one of the major impediments is that the Department has only a partial role in a fragmented Commonwealth and State health funding system. For example, casemix funding is provided via the State Government and only applies to acute health services. This limits the capacity for networks and hospitals to utilise acute health funds to purchase those non-acute health services that are funded by the Commonwealth, e.g. Home and Community Care and aged care.

7.44 Commonwealth initiatives such as Healthstreams and Co-ordinated Care Trials for rural hospitals have been introduced to promote more efficient and effective integrated health care. To build upon these initiatives, audit has suggested that the Department introduce further flexibility into the funding of acute health services. This could be achieved through, for example, networks and hospitals submitting a business case to justify the transfer of acute health funds into non-acute health areas, subject to other acute health objectives continuing to be met.

7.45 The Department drew audit's attention to the fact that even with service substitution, demand for acute care will continue to increase. In this regard, the Commonwealth has estimated that total health care funding in Australia will need to increase by around 75 per cent in real terms by 2031.

Views of the Department, networks and hospitals

What is the Department's assessment of whether there is potential for further service substitution in driving efficiencies? Does the Department have a role in this process? If so, what is it and what barriers, if any, does the Department face?

7.46 According to the Department, it "has only a partial role in this issue as it is about the fragmented nature of the Australian health care system and the respective financing by the Commonwealth, State and private sector. The Australian Health Care Agreement negotiations represent an opportunity to begin to address needed reforms. Our greatest service emphases are on continuous improvement, demand management, funding for new technology and best practice, as well as substitution. Substitution should not be seen as a panacea. Even with substitution, demand for acute care will continue to increase in the medium to long-term because of:

- technology - enabling new treatments or the treatment of people previously unable to be treated;
- a growing and ageing population;
- the continuous decline in private health insurance; and
- increasing community expectations - the "baby boomer" effect.

"The dimension of predicted future demand growth is quite staggering. For example, the Retirement Income Modelling Taskforce of the Commonwealth Finance, Treasury and Social Security Departments estimated that total health care funding in Australia would need to increase by around 75 per cent (an increase of 6.1 per cent [in the proportion of health care expenditure] to gross domestic product above current levels) by 2031".

"The Economic Planning Advisory Council estimated that Commonwealth outlays alone on health will need to increase by 2.1 per cent of gross domestic product".

In relation to the hospital(s) you are responsible for, do you conduct a community health needs analysis to assess which treatments or services can be better delivered outside of an acute hospital setting?

	Yes	*No*	*No response*
Networks	6 (100%)		
Rural hospitals	29 (62%)	17 (36%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Are further efficiency savings possible in network hospitals through service substitution?

	Yes	*No*	*DK*
Networks	4 (67%)	1 (17%)	1 (16%)
Metropolitan hospitals	6 (46%)	5 (39%)	2 (15%)
Rural hospitals	13 (28%)	27 (57%)	7 (15%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

7.47 The network and hospital responses on the extent of potential efficiency savings through service substitution indicate that the major savings can be made in the metropolitan rather than rural hospitals. In audit's view, this reflects the fact that metropolitan hospitals provide the higher cost acute health care which presents greater opportunities to achieve savings through service substitution.

7.48 In terms of which hospital services could be more efficiently supplied by other health care providers, the following responses were offered by various networks:

- pathology, radiology, some allied health disciplines and certain Same Day procedures are currently under review;
- elements of services, not whole services;
- after care and follow-up; and
- day care.

7.49 One network made the following comment: *"Financial incentives are based on admission, not keeping them out of hospital in the first place"*. Audit agrees with this sentiment to a point, however, it must be acknowledged that service substitution may represent future ongoing cost savings for acute health care and therefore should be encouraged through the casemix formula.

7.50 As individual hospitals provided a wide range of specific services ranging from immunisation programs to some of the more general ear, nose and throat services to name just a few, the Department needs to, within existing constraints, continue to encourage greater flexibility in the provision of health services to better meet patient needs.

Trends in service substitution

7.51 Service substitution is aimed at providing less costly and more appropriate forms of care. In terms of the substitution of one type of patient care for another form of care, the audit disclosed that since the introduction of casemix some Multi-Day patients have been substituted for Same Day patients. The other form of service substitution, that is, of acute services for non-acute services such as community health, home services and Royal District Nursing Services, is precluded under current funding arrangements as these services are primarily Commonwealth-funded. Until the issue of fragmentation of funding sources is resolved, any attempts by the State to substitute acute care for non-acute care in these areas could be interpreted as cost shifting by the Commonwealth.

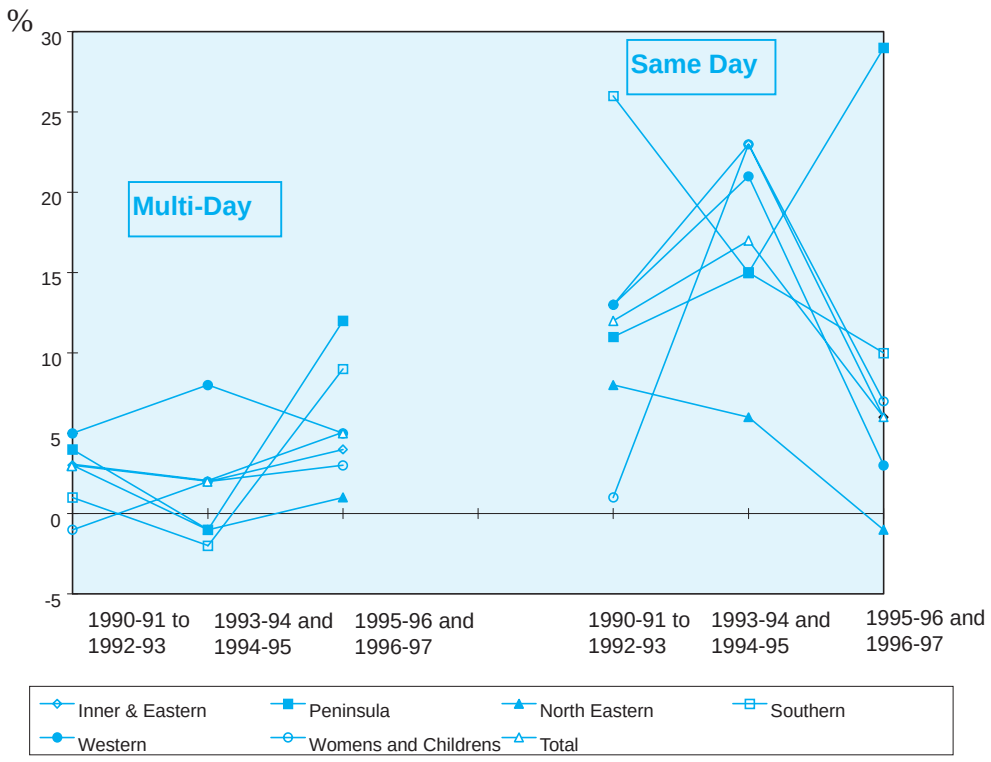
7.52 The casemix payment system provides the Department with an opportunity to manage the demand for particular services by including positive and negative financial incentives in the casemix formula. The Department was able to reduce the large growth in Same Day medical services in 1995-96, for instance, by setting capped targets and reducing Same Day outlier payments (i.e. payments for separations that are outside the average length of stay). Subsequently, the rate of growth in Same Day medical services returned to pre-casemix levels and there was a resultant growth in Multi-Day patients

7.53 The Department did not adjust the Same Day medical caps to reflect differences in the level of Same Day services between networks and individual hospitals. As a result, changes in the underlying community need for these services was not taken into consideration in the subsequent setting of Same Day targets. The continued allocation of throughput targets based on the Same Day activity levels in 1994-95, therefore, preserves any inequities which existed between hospitals prior to the introduction of the cap.

7.54 The potential for those networks and hospitals that had not introduced Same Day services to the same extent as other hospitals to make further cost efficiencies through service substitution is therefore restricted by the cap on Same Day throughput targets. The Department needs to assist networks and hospitals in facilitating service substitution by reviewing Same Day target caps where it is shown that Multi-Day care can be safely and appropriately substituted by Same Day services.

7.55 Chart 7D shows the average annual percentage growth rates for Same Day and Multi-Day separations on a network basis. The chart shows that networks performed differently with regard to their growth rates in Multi-Day and Same Day separations.

CHART 7D
AVERAGE ANNUAL GROWTH RATES FOR SAME DAY AND MULTI-DAY SEPARATIONS
(per cent)



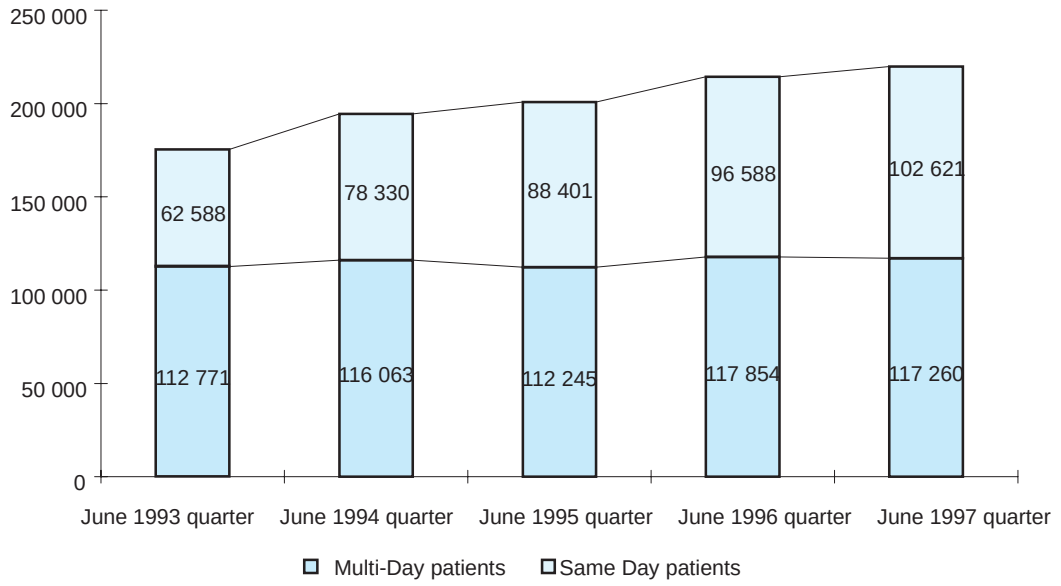
Source: Department of Human Services.

7.56 As shown in Chart 7D above, the Southern and North Eastern Health Care Networks were the only networks with declining growths in Same Day separations in the pre-casemix period, the downwards trends continuing after 1993-94 through to 1996-97. The other networks had varying rates of pre-casemix growth with the Women's and Children's Health Care Network showing the fastest rate of growth prior to 1993-94. The only network to increase Same Day throughput following the introduction of funding limits in 1995-96 was the Peninsula Health Care Network.

7.57 Chart 7D also shows that the highest growth rates of Multi-Day separations occurred in the Peninsula and Southern Health Care Networks directly following the introduction of casemix funding. Conversely the former Western Health Care Network, which was in a comparatively weaker financial position, showed a contraction in Multi-Day separations when compared to the growth trends evident in other networks.

7.58 Chart 7E shows the trend in throughput in terms of Multi-Day and Same Day patients treated in public hospitals for the June quarters in the years 1993 to 1997. The improvement in efficiency as demonstrated by the increase in throughput has predominantly been in the less complex areas of patient care in the form of Same Day patients, some of which is attributable to changes in the definition of outpatients.

CHART 7E
PATIENTS TREATED IN PUBLIC HOSPITALS,
1993 TO 1997



Source: Hospital waiting list returns, Department of Human Services, in *Hospital Services Report* October 1995, June 1996, December 1996, June 1997.

7.59 Based on the details contained in Chart 7E, the overall increase in Same Day separations between the June 1993 and June 1997 quarters was approximately 64 per cent. The growth is substantially explained by changes in the way hospitals categorised outpatients, and changes to clinical practices and technology. For example, following the introduction of casemix funding, hospitals counted suitable outpatient cases such as renal and cancer patients receiving day treatments as Same Day medical inpatients to attract casemix payments.

7.60 Overall, the rate of increase in Multi-Day separations has remained at constant pre-casemix levels. Multi-Day separations, however, grew in 1994-95 by 5 per cent which was largely attributable to changes in the way hospitals defined a new born. This change resulted in increased counting of the admission of all new borns regardless of their need for admission to an acute facility.

Commonwealth Co-ordinated Care Trials

7.61 The casemix funding formula does not readily encourage hospitals to substitute profitable types of acute care for alternative types of effective acute health care outside of hospitals, such as those available within community health programs or general practice.

7.62 The extent to which service substitution is actively pursued by the Department through networks and hospitals will be influenced by the outcome of the Commonwealth Department of Health and Family Services' Co-ordinated Care Trials. Audit was advised by the Department that the Commonwealth-sponsored Trials are conducted in the Southern and North Western Health Care Networks. The Trials seek to transfer health care from high cost areas such as acute care to primary care or community health care. Primary care includes care provided by general practitioners, allied health professionals and care providers outside the hospital setting whereas community health care includes services provided by the Home and Community Care Program, the Royal District Nursing Service and local community health centres.

7.63 The Trials will provide integrated packages of health services with both State and Commonwealth funding through the co-operation of family general practitioners. The success or failure of the Trials depends upon its acceptance by general practitioners and whether appropriate purchasing networks can be created.

7.64 In relation to rural hospital funding, the Commonwealth/State funding arrangements have been integrated under the Healthstreams Program which allows hospitals to elect to substitute acute casemix funding for application in non-acute areas.

Suggestions for the future

7.65 It was pleasing to find that the Department has encouraged greater substitution of acute health with other less expensive and more effective forms of non-acute care by providing initial substitution funding of $1 million in 1997-98.

7.66 To build upon the steps already taken, the Department could consider introducing an initiative to provide additional flexibility whereby networks and hospitals could submit a business case to the Department to adjust activity levels between acute health and other health programs on the condition that other acute health objectives such as waiting list targets continue to be met.

7.67 The level of fragmentation between Commonwealth and State funding of health services continues to remain a major concern which prevents service integration and service substitution within the health system as integration and substitution implies control over all funding sources, e.g. drugs issued to a patient within a hospital is State-funded whereas drugs issued to the same person outside the hospital setting is Commonwealth-funded. There is scope, however, for increased service substitution by freeing-up funding between State-funded programs. In this regard, further liaison between the Aged, Community and Mental Health Division and Acute Health Division in progressing this issue should occur. In addition, the Department should review divisional funding arrangements with the objective of identifying opportunities for increasing service substitution through new and more flexible funding processes.

7.68 The development of a common patient identifier to track patients and their medical history across health service providers is a prerequisite to the introduction of effective service substitution. The Department has indicated that it is currently examining this issue.

BARRIERS TO ACHIEVING IMPROVED SERVICE EFFICIENCY

Overall audit comment

7.69 The audit revealed that half the networks and two-thirds of hospitals maintained that there were major barriers to achieving improved service efficiency.

Views of networks and hospitals

Are there any major barriers to achieving improved service efficiency?

	Yes	*No*
Networks	3 (50%)	3 (50%)
Metropolitan hospitals	9 (69%)	4 (31%)
Rural hospitals	32 (68%)	15 (32%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

7.70 The major barriers identified by respondents to achieving improved service efficiency centred around the following issues:

- an attitude of staff feeling pressured and targeted;
- the time taken to change cultures and historic work practices;
- industrial implications;
- the state of physical facilities and the significant shortage of funding for equipment;
- the lack of consistency and integration in methods of funding between departmental programs and between State and Commonwealth Governments; and
- community opposition.

FINANCIAL PERFORMANCE OF NETWORKS AND HOSPITALS

Overall audit comment

7.71 In commenting on the financial performance of networks and hospitals, it needs to be recognised that in the past the Auditor-General has considered these entities to be viable ongoing entities.

7.72 Audit was advised by the Department that "the principal objective of public hospitals is to provide quality public hospital services and there is no requirement for hospitals to generate surpluses or create wealth."

7.73 The audit disclosed that some hospitals that incurred substantial financial losses since the introduction of casemix and micro-economic reforms received additional funding from the Department.

7.74 Since 1992-93, there has been a significant decline in net current assets and surpluses of some networks and hospitals. This situation demonstrates increased financial pressures, following the Government's reforms, facing networks and hospitals. During this period, the financial position of a number of hospitals has deteriorated with audit noting 5 cases where the Department has provided financial assistance in the form of a loan or grant in order to assist management in the orderly restructure of hospital operations to be able to operate within funding levels.

7.75 Apart from additional funds provided to hospitals, the Department has also played an active role in monitoring the financial performance of hospitals on a monthly basis through the preparation of material which contains several key financial indicators.

7.76 The introduction of casemix and associated government reforms had a significant impact on the level of reserves and profitability of networks and hospitals. In analysing the financial position of networks and hospitals the Department, in excluding one-off and major non-cash items that would distort any meaningful analysis, calculates the financial position before capital, depreciation and abnormal items. In this context, capital refers to both capital grants from government and donations received. For example, in the case of the Western Health Care Network the audited result for 1996-97 was a deficit of $47.4 million compared with a deficit of $7.6 million when the above items were taken into consideration.

7.77 On this basis, since 1992-93 surpluses for networks before capital, depreciation and abnormal items have declined by 88 per cent and the net current assets have decreased by 94 per cent.

7.78 Networks and hospitals are increasingly dependent on private donations to assist in funding equipment and research, and additional government funding such as the provision of loans. The sustainability of such practices is open to question. In the opinion of the Department, "the high level of net current assets of around $70 million that existed in the system in 1992-93 and 1993-94 demonstrates a significant level of overfunding which should have been put to productive use in providing services."

7.79 Certain health care networks, such as Inner and Eastern, have become increasingly reliant on donations.

7.80 For 1997-98, there has been some easing of the budgetary pressures facing hospitals. In aggregate terms the industry has been provided with additional acute health funding of $6 million. All networks have budgeted to achieve a break-even position or surplus, however, information maintained by the Department indicated that the results for the first quarter were adversely impacted by the nurses dispute which may affect the forecasts for 1997-98. In audit opinion, the active monitoring by the Department provides a high degree of assurance that any concerns will be drawn to the Government's attention on a timely basis.

7.81 It is apparent that the capacity of networks and hospitals to fund shortfalls by strategies such as drawing on cash reserves is becoming more limited. In addition, the low level of liquidity of many networks and hospitals could make it increasingly difficult for them to continue to make structural changes to operations from their own financial resources.

Views of the Department

Has the Department been required to fund additional hospitals incurring substantial financial losses following the implementation of casemix? Were the reasons for such losses analysed by the Department?

7.82 According to the Department, "in addition to its role as purchaser of services from hospitals (where casemix plays its key role), it also has a role concerning the viability of hospitals. The Department has an objective of maintaining the viability of efficient providers. As part of that role, the Department has undertaken actions to ensure the efficient operation of hospitals. In 5 cases since the commencement of casemix this has meant the provision of additional funds on either a loan or grant basis, as part of restructuring packages to particular hospitals. The cases have been:

- Ballarat Health Services

  The hospital had experienced significant financial difficulties especially in relation to its liquidity and requested assistance from the Department.

  The annual accounts for 1993-94 showed an operating deficit of $2.9 million and deficiency in working capital of $10.9 million. This represented a deterioration of $3.6 million and $2.7 million, respectively, from the previous year.

  KPMG Management was engaged by the hospital (with funding from the Department) to assist in resolving its financial issues and implement changes in a number of operational areas identified in its review. A 'Financial Management and Debt Reduction Plan' was prepared in October 1994. A substantial restructuring of the Board of Management and Senior Management Team took place after the commencement of the review, which enabled a number of improvements in operational management and control systems.

  As part of the restructuring, the Department provided a loan of $5 million, with $1 million per year to be repaid from 1996-97.

Year	*Operating surplus/(deficit)*	*Net current assets*
	($m)	*($m)*
1992-93	0.7	(8.2)
1993-94	(2.9)	(10.9)
1994-95	3.6	(3.2)
1995-96	2.2	(2.5)

- Western Health Care Network

  The Royal Melbourne Hospital adopted budget strategies in the 2 years preceding the formation of the network in August 1995, which were predicated on throughput growth and significant access to the additional throughput pool. The hospital did not perceive a need to prioritise activity or reduce costs. Changes to the additional throughput pool in October 1994 which limited growth in throughput for each network to 5 per cent precipitated the realisation that this strategy was not sustainable, which was reflected in the hospital's financial position. At the commencement of 1995, the hospital initiated a strategy of reducing services and costs but it did not deliver the anticipated level of savings.

  The network was formed in August 1995, with a new Board of Directors, who appointed a new interim Chief Executive Officer and acting network Finance Director. A number of the senior management also left, and over the next few months new General Managers were appointed at all the hospitals and a number of interim senior executive appointments made. In January 1996, the new Chief Executive Officer confirmed the interim appointments.

  The network management identified serious financial problems and projected a significant operating deficit and cash flow problems for 1995-96. The network submitted a Debt Reduction Plan in May 1996 to rectify the financial situation. The plan included a reduction in staff numbers, rationalisation of facilities and investigation of ordered asset sales. As part of the restructuring package, the Department provided an interest free loan of $5 million, due to be repaid in 1997-98, to ensure the business had sufficient cash and to aid an orderly sell off of assets.

- North Eastern Health Care Network

  On 1 January 1995, responsibility for the Heidelberg Repatriation Hospital passed from the Commonwealth to the State and subsequently became part of the North Eastern Health Care Network under the new identity of Austin and Repatriation Medical Centre. The agreement with the Commonwealth, however, required that a teaching hospital should remain on the Repatriation Hospital site until the agreement expired in July 1998. The inefficiencies of operating on 2 sites were recognised, but a process of consolidation of services was put in place within the restrictions imposed by the agreement with the Commonwealth.

  A Business Recovery Plan for the medical centre for the period 1995-96 to 1998-99 was prepared by the management of North Eastern Health Care Network and the medical centre and reviewed by KPMG in January 1996. Key elements of the plan included:

  - consolidation of public patient activity on the Austin Hospital site;
  - significant downsizing of repatriation site with dedicated "veteran hospital service";
  - implementation of management structure based on self-contained service units;

- reduction of staff by 800 over the 3 years from 1996-97 to 1998-99, of which half will be achieved by redundancy; and
- achievement of a balanced budget by 1998-99 following operating deficits totalling $28 million to 1997-98.

To assist this process of restructuring the Department agreed to provide additional funding in 1995-96 of $10 million, with funding to be reviewed in subsequent years.

Upon presentation of a business plan from the North Eastern Health Care Network in 1996-97, the Department provided $9.3 million in 1996-97 to assist further restructuring. The Department has employed consultants to review operations to identify additional infrastructure costs arising from operating the services over 2 sites, and to identify potential savings strategies at the Repatriation Hospital site. The Department will also receive a business plan for the network before finalising a further equity grant for 1997-98.

- Loans were also extended to Wimmera Hospital in 1994-95 and Latrobe Regional Hospital in 1994-95 and 1995-96 to assist their financial position. In both cases, the poor position was assessed as being in a large part due to operating under old and inefficient infrastructure."

Industry submission

7.83 The following extract of a submission to the audit relates to the focus by hospitals on maximising their financial position:

"Many hospitals have complained that they are forced to spend much managerial time and effort optimising their funding by creating sophisticated mathematical models which they believe could better be spent in focusing on patient care needs.

"Hospitals are doing everything possible to maintain services, in the face of continuing expenditure reductions. However, recent research shows that expenditure and service levels are not sustainable in the medium to longer-term. At present, hospitals are drawing on capital reserves and surpluses from business units in some instances to meet recurrent funding shortfalls but by definition this cannot continue for much longer. It is anticipated that by 31 December 1997, some hospitals may have to review service levels."

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

In relation to the past assistance granted by the Department to the above networks and hospitals, assistance has not been provided because they represent a financial risk, but to assist management in the orderly restructure of hospital operations to operate within funding levels.

An examination of the above hospitals' balance sheets reveals an equity level of between 70 to 90 per cent in their operations. These hospitals all have significant non-core assets which could have been sold to raise funds if required. Each could obtain access to additional liquidity in the form of an overdraft facility with their bankers should they have chosen to use it. Assets included significant commercial and residential property investments and business units such as car parks and Linen and Pathology Services.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

This is confirmed by the fact that the statutory audit arm issued certificates to all networks and hospitals that they were ongoing viable financial entities at 30 June 1997. If there was any doubt, the Auditor-General would have issued a qualified certificate.

It is misleading to quote that hospital surpluses have been reduced by 88 per cent since 1992-93, as it is not an objective of the public hospital sector to create surpluses or make profits.

The question of whether it is appropriate for the hospital sector to create a surplus in excess of $70 million in 1992-93 and 1993-94 should be explicitly discussed, particularly when the Victorian Commission of Audit found in April 1993, as quoted in paragraph 2.5, that savings of $373 million could be found by improving the performance of all hospitals.

Audit's comment in paragraph 7.9 that the financial position of networks has worsened, implies that audit considers a surplus should be earned.

Liquidity ratios

Background information

7.84 Authoritative literature states that liquidity ratios appraise an organisation's ability to meet its current obligations. The *current asset ratio* compares current liabilities, which are the obligations falling due in the next 12 months such as creditors and staff entitlements, and current assets that typically provide the funds to extinguish these obligations. Audit acknowledges that the meaningfulness of the current asset ratio as a measure of liquidity varies between industries and even between organisations and that for organisations which have a predictable cash inflow and outflow, a lower current asset ratio may be appropriate.

7.85 In comparison to the current asset ratio, calculation of the *quick asset ratio* can also be used in adopting a liquidation approach to financial statement analysis. This ratio measures the ability of an organisation to use those current assets that can be quickly converted to cash to immediately extinguish its current liabilities**.**

Audit comment

7.86 Examination of the audited financial statements of networks and hospitals revealed that a number of networks and hospitals had a current asset ratio of less than one at 30 June 1997. A ratio of less than one when combined with reductions in operating surpluses in certain networks and hospitals may signal liquidity problems and signify that these networks and hospitals are operating under financial pressures. This information is presented so that the Department can compare ratios for networks and hospitals on an ongoing basis with an appropriate benchmark for the acute health industry.

7.87 In analysing liquidity the Department should determine whether additional ratios should be considered in conjunction with current asset ratios. The use of a quick asset ratio would require informed decisions on current assets to be excluded from the calculation of the ratio.

Audit analysis

7.88 The analysis of current asset ratios of networks and hospitals at 30 June 1997 that were less than one is presented in Table 7F.

TABLE 7F
CURRENT ASSET RATIO, AT 30 JUNE 1997

Category	*Network/Hospitals*	*Current assets*	*Current liabilities*	*Net current assets*	*Current asset ratio*
		($'000)	($'000)	($'000)	
B	Central Wellington Health Service	1 133	3 568	-2 435	0.32
B	Mildura Base Hospital	1 793	5 177	-3 384	0.35
B	Latrobe Regional Hospital	3 867	10 115	-6 248	0.38
D	Edenhope and District Memorial Hospital	272	628	-356	0.43
B	Wangaratta District Base Hospital	3 970	8 228	-4 258	0.48
D	Rochester and Elmore District Health Service	555	1 051	-496	0.53
D	Corangamite Regional Hospital Services	584	929	-345	0.63
	Peninsula Health Care Network	11 490	17 287	-5 797	0.66
	North Eastern Health Care Network *(a)*	51 720	77 566	-25 846	0.67
	Western Health Care Network *(a)*	64 959	96 538	-31 579	0.67
C	Portland and District Hospital	1 431	2 129	-698	0.67
C	Mt Alexander Hospital	2 937	4 280	-1 343	0.69
B	Echuca Regional Health	3 428	4 907	-1 479	0.70
B	Hamilton Base Hospital	2 519	3 337	-818	0.75
E	Maldon Hospital	291	388	-97	0.75
C	Maryborough District Health Service	1 418	1 868	-450	0.76
C	Wonthaggi and District Hospital	1 740	2 283	-543	0.76
E	Heywood and District Memorial Hospital	454	591	-137	0.77
A2	Mercy Public hospitals Incorporated	8 292	9 955	-1 663	0.83
B	Wimmera Health Care Group	3 948	4 699	-751	0.84
D	Seymour District Memorial Hospital	839	985	-146	0.85
B	Wodonga District Hospital	2 902	3 388	-486	0.86
E	Casterton Memorial Hospital	475	545	-70	0.87
E	Upper Murray Health and Community Services *(b)*	603	690	-87	0.87
B	Ballarat Health Services	18 326	20 735	-2 409	0.88
A1	St Vincent's Hospital (Melbourne) Limited	43 231	46 224	-2,993	0.94
D	Alexandra District Hospital	503	532	-29	0.95
	Southern Health Care Network	52 788	53 889	-1 101	0.98

(a) Amalgamated in November 1997 to form the North Western Health Care Network except for the Austin and Repatriation Medical Centre.
(b) Now a multi-purpose service rather than a hospital.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

It has been demonstrated since 1993-94 that larger hospitals can operate without much difficulty with a current ratio of between 0.7 and 1.0. The reason for this relates to the fact that there are fundamental differences that distinguish the public hospital sector from the private sector including:

- *the large degree of certainty in funding both short-term and long-term, given that their major customer is the Department which approves both their service profile and level of service;*
- *payment for services is made by the Department in advance and usually coincides with hospitals' fortnightly pay;*
- *as a government owned agency, public hospitals have considerable leverage with financiers to draw on funds;*
- *current liabilities of public hospitals mostly relate to staff entitlements which historically have not been fully used within the 12 month period and can be managed by competent administrators;*
- *public hospitals can hold considerable non-current investments such as linen services, car parks and residential and commercial property which can be used to generate liquidity quickly if required; and*
- *their ability to establish financial facilities and instruments given their asset base (e.g. overdrafts and lease back arrangements).*

Audit has recognised some of these factors in its discussion of the Western Network's finances in paragraph 7.96. In particular, audit's more detailed examination of the network's employee entitlements recorded as current liabilities found that only one-half would actually be paid in any following year. The evidence found from more detailed analysis such as this, should inform the opinions made regarding the adequacy of hospitals' current assets.

It would have been prudent for Audit to present historical data validating its assertion that the figure of less than 1.0 will place hospitals at risk of default. The Department is unaware of any of the hospitals listed by Audit having problems in meeting their commitments. Indeed the Department is unaware of any hospital in Victoria defaulting on any commitment.

A reduction in this ratio say from 2.0 to 1.0 is not necessarily bad and indeed in some cases is encouraged by the Department so that hospitals can have an appropriately structured balance sheet. That is, hospitals should ensure that they have an appropriate matching of current assets and current liabilities for the level of risk that they are exposed to. For example there is no advantage, indeed it is to their disadvantage, for hospitals to pay their creditors before they are due, as these funds can earn interest or be used for other purposes."

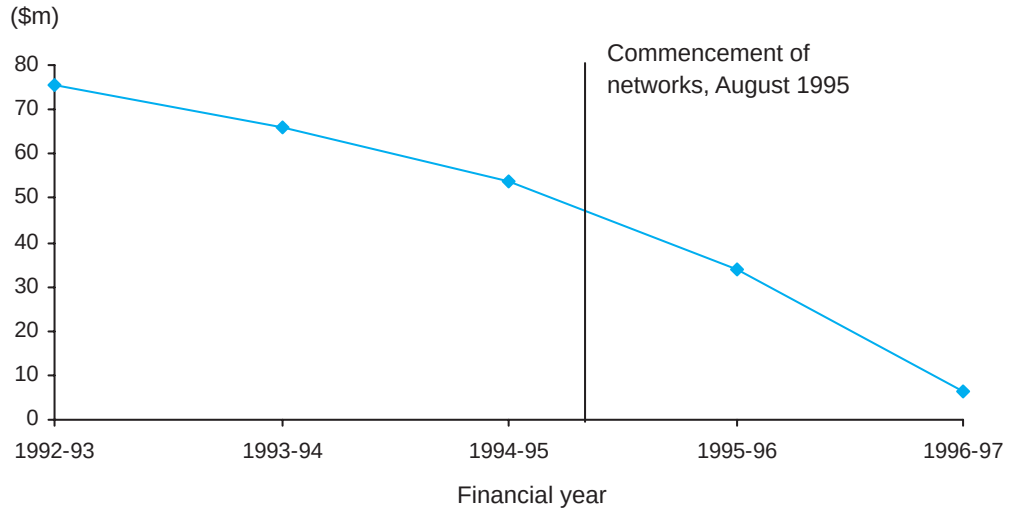
Nevertheless, the Department monitors the key financial indicators of hospitals and networks on a monthly basis, and where there are causes for concern, the Department ensures that hospital managements take appropriate action or intervene to effect restructuring, as identified by audit in paragraph 7.78.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services - continued*

Contrary to audit's presumption, the Department collected and analysed all hospital quick asset ratio for 3 years from 1993-94. The ratio proved to be highly volatile and misleading due to the atypical nature of hospital balance sheets. The Department in conjunction with the industry concluded that its collection was of little material value and the ratio was dropped from monthly reporting.

7.89 As shown in Chart 7G, the net current assets available to networks has substantially decreased by 94 per cent from $76 million at 30 June 1993 to only $4.4 million at 30 June 1997.

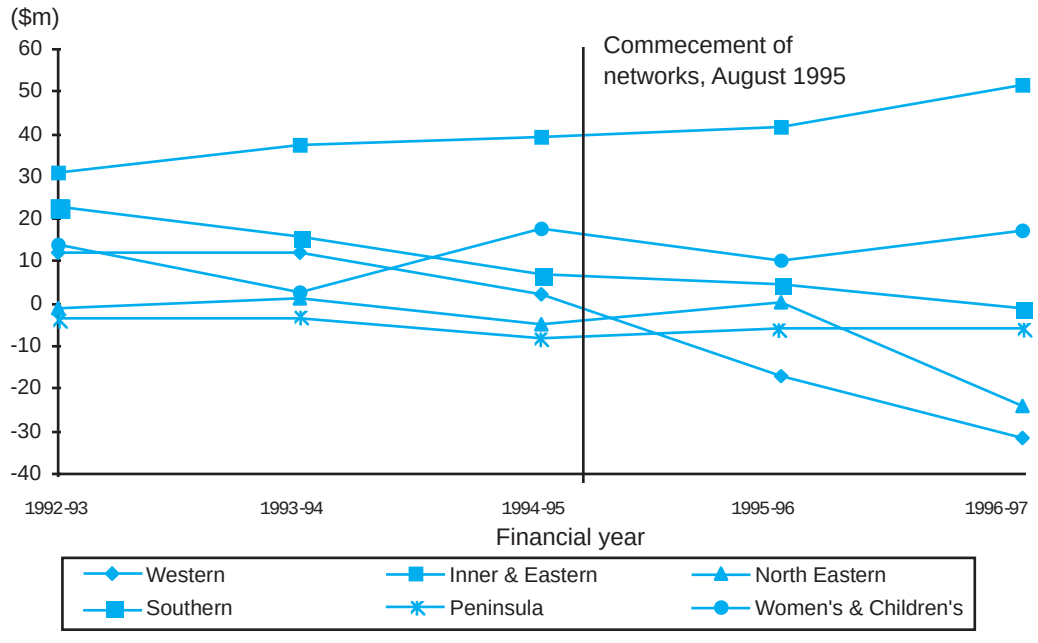
CHART 7G
NET CURRENT ASSETS - ALL HEALTH CARE NETWORKS
($million)



Source: Division of Acute Health Services' working papers for period ended June 1997.

7.90 As indicated in Chart 7H the major deterioration, on an individual network basis, is largely accounted for by the former Western Health Care Network ($48 million since 1993-94) and former North Eastern Health Care Network ($27 million since 1993-94) and reflects large deficits reported by these networks over the preceding 2 years.

CHART 7H
NET CURRENT ASSETS BY INDIVIDUAL HEALTH CARE NETWORKS
($million)



Source: Division of Acute Health Services' working papers for period ended June 1997.

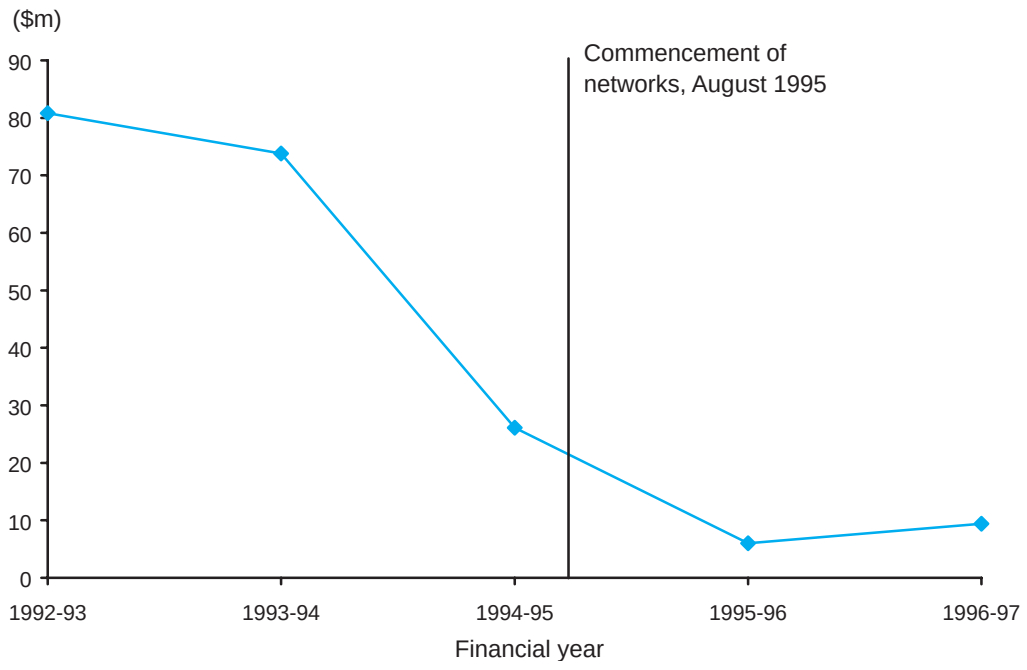
❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

The high level of net current assets that existed in the system in 1992-93 and 1993-94 predominantly represents surpluses from prior year operations and donations. The reduction in net current assets quoted in the Report is misleading as the majority of these past surpluses are now represented by services provided to the public or by non current assets either in the form of property investments, equipment or some other form of capital and may be turned into cash if required.

Surplus/deficit

7.91 The 1996-97 operating results for networks showed an overall aggregate network surplus of $9.4 million before capital, depreciation and abnormal items. As can be seen in Chart 7I, this position reverses the trend over the previous 4 years where there had been a significant decline in operating surpluses from $80.8 million in 1992-93 to $6 million in 1995-96 in network hospitals.

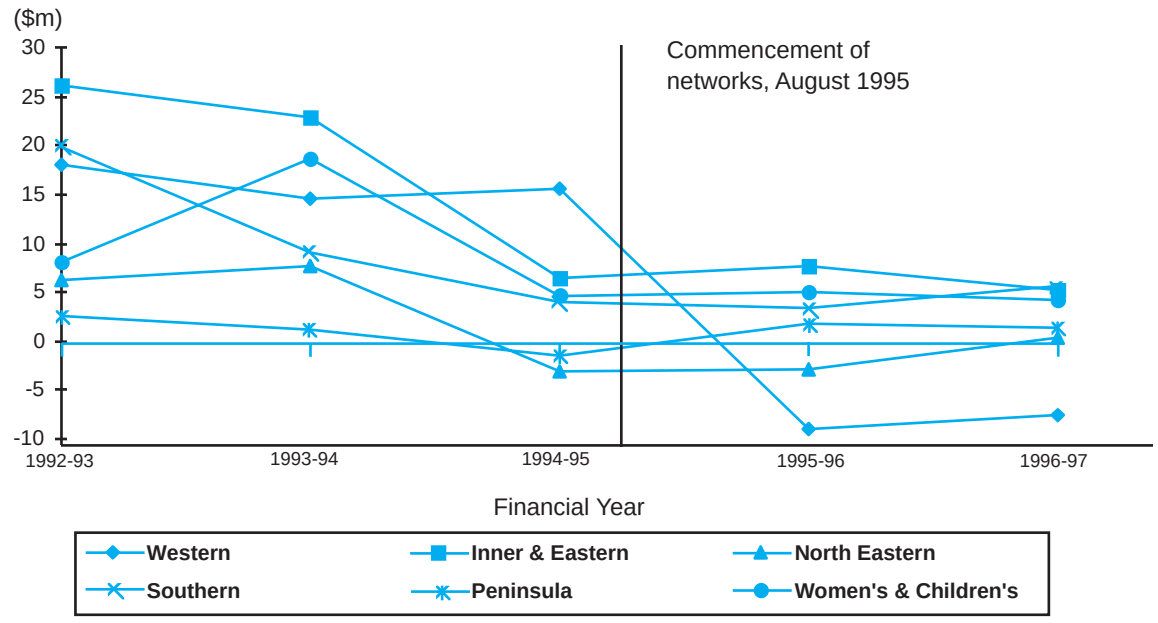
CHART 7I
AGGREGATE SURPLUS OF NETWORKS
(BEFORE CAPITAL, DEPRECIATION AND ABNORMAL ITEMS)
($million)



Source: Division of Acute Health Services' working papers for period ended June 1997.

7.92 Chart 7J shows the trend in surpluses or deficits per individual network since 1992-93. As shown in this chart, 5 networks achieved a surplus for the year ended 1996-97 (Southern $5.6 million, Inner and Eastern $5.3 million, Women's & Children's $4.3 million, Peninsula $1.4 million and the former North Eastern Network $400 000) and one network (the former Western Health Care Network) reported a deficit of $7.6 million. However, audit noted that the surplus for the North Eastern Health Care Network was due to a $10.8 million injection of funding by the Department to assist with the restructuring of the network. Without this funding, the network would have reported a $10.4 million loss. At September 1997, the network had received a further $2.3 million in funding.

CHART 7J
NETWORK SURPLUS/DEFICIT
(BEFORE CAPITAL, DEPRECIATION AND ABNORMAL ITEMS)
($million)



Source: Division of Acute Health Services' working papers for period ended June 1997.

7.93 In 1996-97, $67.6 million was received in donations consisting of $41.9 million for operating purposes and $25.7 million for capital purposes. In the context of networks' declining financial position, the amount of donations received by some networks provides an increasingly important source of funding supplementation. However, as shown in the Table 7K, the level of donations varied significantly between networks. The Women's and Children's, and Inner and Eastern Health Care Networks received by far the largest amount of donations. According to the Department, donations are not used to fund government services as approximately 80 per cent of all donations are for specified purposes and must be used in accordance with the donor's wishes, generally for equipment or research purposes.

TABLE 7K
DONATIONS, 1996-97
($million)

Network/Hospitals	*Operating purposes*	*Capital purposes*	*Total donation*
Women's and Children's	12.7	13.4	26.1
Inner and Eastern	14.5	2.2	16.7
Western	3.2	-	3.2
North Eastern	2.2	-	2.2
Southern	1.7	-	1.7
Peninsula	0.1	0.3	0.4
Other	7.5	9.8	17.3
Total	**41.9**	**25.7**	**67.6**

Source: Division of Acute Health Services' working papers for period ended June 1997.

Surplus/deficits networks and hospitals

7.94 The audit analysis of data provided by the Department on the surplus/deficit of networks and hospitals indicates that the Western Health Care Network and a further 19 hospitals reported a deficit for 1996-97, after excluding capital, depreciation and abnormal items from the financial result disclosed in the published financial statements of these organisations. Table 7L discloses the deficits incurred on a network or hospital basis.

TABLE 7L
NETWORK/HOSPITAL DEFICITS, 1996-97
($'000)

Category	*Network/Hospitals*	*Adjusted operating deficit*
E	Maldon Hospital *(a)*	-21
E	Boort District Hospital	-24
D	Rochester and Elmore District Health Service *(a)*	-73
E	Casterton Memorial Hospital *(a)*	-97
D	Corangamite Regional Hospital Services *(a)*	-118
E	Upper Murray Health and Community Services *(a) (b)*	-119
D	Alexandra District Hospital *(a)*	-126
D	Maffra District Hospital	-168
B	Central Wellington Heath Service *(a)*	-241
D	Kyneton District Health Centre	-250
C	Maryborough District Health Service *(a)*	-262
D	Warracknabeal District Hospital	-310
B	Echuca Regional Health *(a)*	-322
A2	Mercy Public Hospitals Incorporated	-505
B	Wimmera Health Care Group *(a)*	-934
A2	Geelong Hospital	-1 172
B	Mildura Base Hospital *(a)*	-1 337
B	Latrobe Regional Hospital *(a)*	-2 684
A1	St Vincent's Hospital (Melbourne) Limited *(a)*	-3 142
A1, A2	Western Heath Care Network *(a)*	-7 577
	Total	**-19 482**

(a) Hospital also has a current asset ratio of less than one.
(b) Now a multi-purpose service rather than a hospital.

7.95 Of the total deficits amounting to $19.5 million, the Western Health Care Network ($7.6 million) made up 39 per cent, with almost 70 per cent of hospitals that reported a deficit also having a current asset ratio of less than one. Networks and hospitals that fall into this category are denoted by *(a)* in the above table.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

An aggregate industry surplus of $12.8 million from around $3.5 billion in expenditure in 1996-97 reflects a reasonably balanced system, but confirms that the Department's overall funding levels of hospitals to be adequate. This is demonstrated by the fact that 72 hospitals reported surpluses, and while 20 hospitals report losses (and these are monitored by the Department) all but 7 incur only minor operating losses, given the objective of balancing revenue and expenses, and the level of turnovers. Seven hospitals are working closely with the Department to improve planning and management to overcome these operating deficits. In addition, the result for Geelong Hospital was an aberration resulting from a major capital works program abnormally affecting operating expenditure and Latrobe Hospital is under private management and no longer carries any risk for Government.

In all the above cases, hospital management has undertaken operation's reviews to address their financial positions. The priority of hospitals and Government is to ensure that services to the public continue and that the management of the networks or hospitals takes appropriate steps to provide those services within the financial limitation applied to all networks and hospitals. In many cases this requires a set of remedial actions, in some cases it also involves changes in senior management of the hospital. In all cases services to the public are monitored, and in some cases the action plans have included temporary financial assistance to hospitals.

The financial results of all hospitals and networks are public information. Hospitals and networks present their financial statements to Parliament at the completion of each financial year. These financial statements are audited by the Auditor-General. If the Auditor-General considers there is any concern that the organisation may not be an ongoing viable financial entity, a qualified audit certificate would be issued.

Western Health Care Network

7.96 On the basis of the above information, given that the Western Health Care Network was considered by audit to constitute the major financial risk in comparison with other networks, audit examined the financial position of the network in detail.

7.97 By way of background, the Western Health Care Network was formed under difficult financial circumstances. The network Board was informed upon commencing duties that in relation to one of its 5 hospitals, the Royal Melbourne Hospital was forecasting an annual deficit for 1995-96 of $6.8 million. A review by the network in October 1995 revealed that the projected deficit was actually between $20 million and $22 million. The deficit had virtually exhausted cash resources at the Royal Melbourne Hospital, with the network required to fund any ongoing shortfalls.

7.98 A debt reduction plan was initiated by network management in 1996-97 to address the financial performance of the network. The plan identified a number of savings initiatives required to contain the deficit.

7.99 Some of the initiatives included:

- staff reductions across network hospitals;
- ward closures at the Royal Melbourne Hospital; and
- amalgamating various individual hospital services.

7.100 In addition, the plan identified the requirement of a $5 million cash injection by the Department to cover operating shortfalls in late 1995-96 and throughout 1996-97. As indicated earlier in this Part of the Report, an interest-free loan, repayable in 1997-98, was also provided by the Department to ensure the business had sufficient cash and to aid an orderly sell off of assets.

7.101 It was envisaged by the Western Health Care Network that it would achieve a breakeven position in 1997-98, the third year of its financial recovery plan. However, a major change in the existing network arrangements (whereby the Preston and Northcote Community Hospital, Northern Hospital and Bundoora Extended Care Network from the North Eastern Health Care Network were incorporated with hospitals in the Western Health Care Network in November 1997 to form the new North Western Health Care Network) may impact on this outcome. At the time of the audit the likely impact on North Western's financial position is unclear, however, the changes present opportunities for greater sharing and rationalisation of resources.

7.102 In relation to the Western Health Care Network, the deficit of $7.6 million for 1996-97 represents a slight improvement over the reported deficit of $8.9 million for 1995-96. This result indicates that strategies implemented in 1996-97 to reduce operating expenses have had some effect.

7.103 The 1996-97 financial audit revealed that, while a working capital deficiency of $32 million existed for the Western Health Care Network comprising current liabilities of $97 million and current assets of $65 million, the classification of long service leave and annual leave as current liabilities was likely to overstate the extent of liability and more likely will not be fully paid during the year. Historical experience suggests the only 50 per cent of total current employee provisions recorded at the year-end will actually be paid out in the following financial year. The review concluded that the actual shortfall in working capital, if any, was not as significant as that reported in the financial statements of the network.

7.104 The financial audit also disclosed that the network had available cash reserves of approximately $13 million at 30 June 1997, after excluding ongoing working capital requirements and funds earmarked for specific purposes. In view of the cash shortfall projected for the year ending 30 June 1998 (i.e. given the repayment of the Department's loan) and the level of cash reserves on hand at year-end, the network is likely to have cash reserves of approximately $8 million available at the end of 1997-98 to fund the ongoing operations of the network in 1998-99. In addition, investment properties recorded at a market value of $9.9 million could also, in audit opinion, be utilised by management to generate cash flows.

7.105 In the 1996-97 financial statements of the former Western Health Care Network, the directors of the network were of the opinion that sufficient cash reserves will exist at the end of the 1997-98 financial year to fund the ongoing operations of the network.

Part 8

Casemix formula

OVERVIEW

8.1 The Department of Human Services has demonstrated a substantial commitment towards developing and implementing the casemix formula since its inception in 1993. The continuous refinement of the formula, which is a substantial improvement over the previous historically-based funding system, has been designed to prevent manipulation of the system by networks and hospitals and to provide a more equitable basis for funding. In addition, the initial development of the casemix formula and its smooth introduction, despite the radical change in the method of hospital funding, remain a significant departmental achievement.

8.2 Despite the efforts of the Department to liaise and consult with the hospital sector, the audit disclosed various aspects where networks and hospitals continue to experience difficulties.

8.3 According to the views expressed by Chief Executive Officers, in broad terms the hospital industry:

- regards the casemix formula as complex;
- is not satisfied with the transparency of the formula;
- finds the casemix formula difficult to manage; and
- finds that particular services or aspects are not covered adequately in the formula.

8.4 Audit found that the Department uses the formula as a funding tool to distribute the total acute health budget across the public hospital system. In order to implement this "budget share model", the Department needs to make numerous annual adjustments to the formula to accommodate changes. The extent of these changes can lead to concerns regarding the transparency of the formula.

8.5 Audit found no evidence of the Department manipulating details of the formula to adversely affect the financial outcomes of networks or hospitals or to conceal budget cuts. However, despite the fact that audit believes that the formula is transparent at a macro level such as the volumes and unit rate of acute health services purchased, it is incumbent on the Department to disclose the rationale for major funding and policy decisions.

8.6 Audit was informed by the Department that the level of complexity of the formula is a major factor leading to criticisms, especially by the smaller rural hospitals, of a perceived lack of transparency in some aspects of the formula.

8.7 Half of the hospitals are not satisfied with the opportunity to contribute feedback to the Department on the effectiveness of the casemix formula, while a similar proportion indicated that their suggestions have not been effectively developed in subsequent casemix formula.

OVERVIEW - *continued*

8.8 The audit also disclosed that a relatively large proportion of networks and hospitals considered that the formula "only sometimes adequately" promotes an equitable payment system with regard to the following components of the formula for 1997-98:

- the calculation of specified grants (67 per cent networks and 43 per cent hospitals); and
- the setting of output targets (50 per cent networks and 53 per cent hospitals).

8.9 In addition, 33 per cent of networks feel that the establishment of the base output target does not promote an equitable payment system and only 18 per cent of hospitals believe that the negotiation process for Contract Option and Contract Bid funding has been equitably administered by the Department (52 per cent disagreed and 30 per cent did not know).

8.10 Audit comments in Part 10 of this Report that greater consideration needs to be given to setting network and hospital activity targets that reflect community need rather than basing targets on historical service patterns.

8.11 On the basis that the casemix formula does not pay sufficient recognition to severity or complexity of patient illnesses, the audit also revealed that almost 50 per cent of networks and hospitals maintain that, by funding similar patients with different complexities on the same basis, they are disadvantaged to some extent in terms of the financial impact on their organisation.

8.12 In the majority of cases, 4 networks and two-thirds of hospitals commented that the variable component of the casemix formula should either fully or partly provide funding for the following factors:

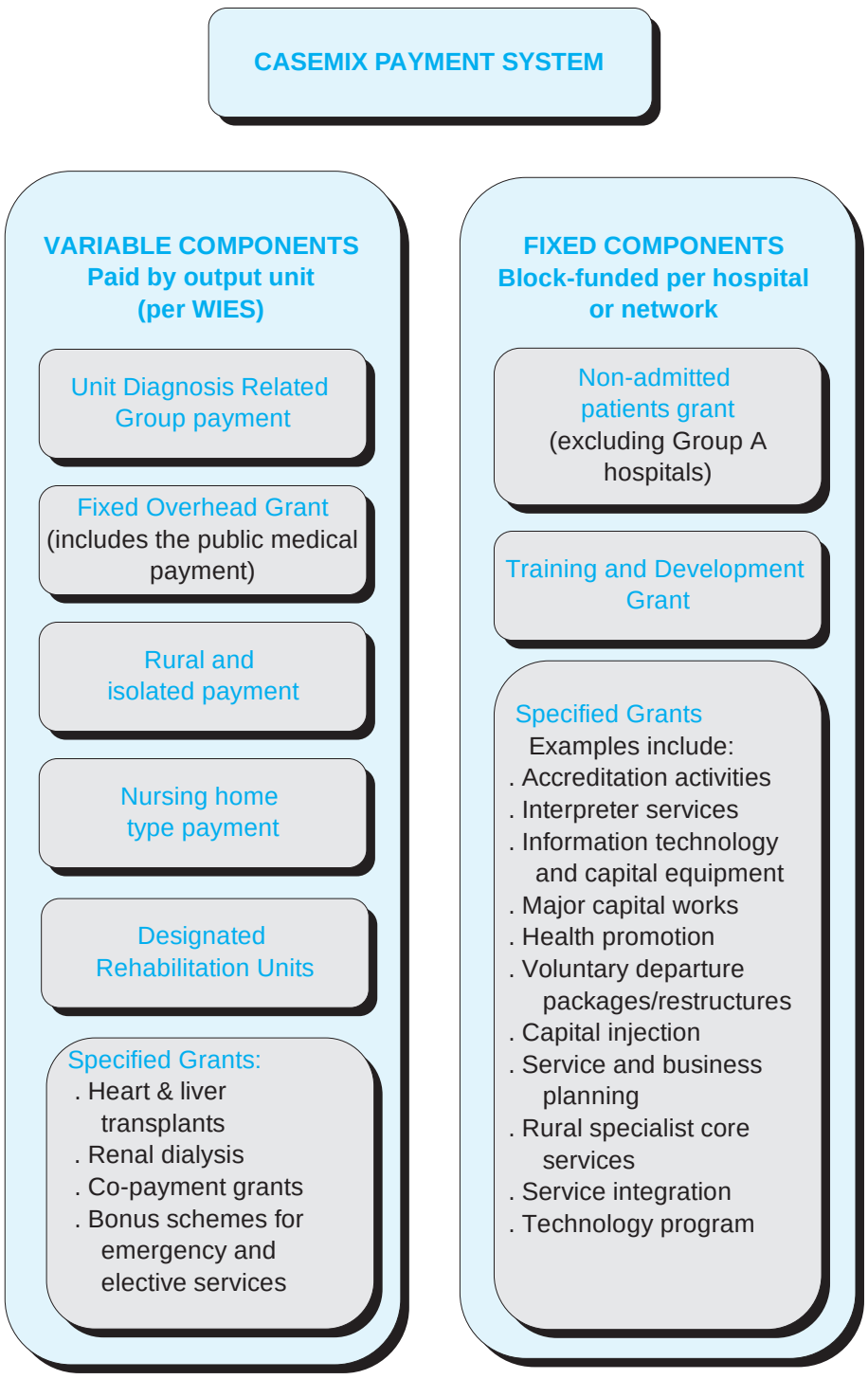
- quality;
- development of new or innovative clinical practices;
- health outcomes;
- development of new or innovative technology;
- the continuum of care;
- palliative care;
- non-direct care activities such as health promotion, patient education, interpreter services and social welfare counselling; and
- the cost of capital.

BACKGROUND

Components of casemix

8.13 Chart 8A, which was developed by audit, is a diagrammatic representation of the various components of the casemix payment system.

CHART 8A
COMPONENTS OF THE CASEMIX PAYMENT SYSTEM



8.14 The variable component of the casemix payment system is based on a centrally-controlled formula that reimburses networks and hospitals for output defined in units such as WIES. Payment level is related to the total unit rate (sometimes known as benchmark or standard unit price), volume of WIES and the mix of the patients treated.

8.15 The fixed component of the casemix payment system is comprised of all the products of an acute hospital which are either not part of the patient classification system or cannot be readily counted as part of an output-based funding system. The Department must fund these areas on an input basis and usually responds to submissions for funding made by networks and hospitals.

8.16 The payment structure under the casemix formula allows the Department to encourage expanded hospital activity within a total capped acute health budget. According to advice provided by the Department, the formula is designed to reimburse networks and hospitals for the achievement of a base level throughput target (Target A) and encourage an increase in the number of patients treated at a marginal price (Target Margin A and Option WIES). Under this strategy, if a network or hospital was to only achieve its base level throughput target, it would incur a budget shortfall. Therefore, there is a strong incentive to increase throughput to obtain the additional funding available at the marginal rate. In addition, bonus payments are provided in the formula for the achievement of workloads beyond baseline throughput levels and agreed output targets.

8.17 The various hospital categories and associated casemix payment rates are shown in Table 8B below.

TABLE 8B
CASEMIX PAYMENT RATES PER HOSPITAL CATEGORY

		Unit rates per public WIES (version 5)		
Target	*Hospital category*	*Fixed overhead rate*	*Variable rate*	*Total unit rate*
		$	*$*	*$*
A	Major providers	749	1 327	1 688
	Rural Group B (large)	847	1 327	1 786
	Rural Group B (small) and C	867	1 327	1 806
	Rural Group D	916	1 327	1 855
	Rural Group E	916	1 327	1 855
Margin A		na	na	929
Option		na	na	1 327
Tender		to be determined		

Source: Department of Human Services, 1997-98 Victoria - Public Hospitals Policy and Funding Guidelines.

Weighted Inlier Equivalent Separations

8.18 A hospital's Weighted Inlier Equivalent Separations (WIES) represents its total number of separations (i.e. patient movements, e.g. discharge, treatments or transfer) weighted to reflect relative resource use. If a hospital performs more complex procedures it would require fewer separations to reach the same WIES target in comparison with another hospital performing less complex procedures. WIES is regarded by networks and hospitals as a unit of currency in the casemix funding formula.

8.19 The following example set out in Table 8C illustrates in simplistic terms the way in which a network or hospital obtains the Diagnosis Related Group unit payment under casemix and the relationship between its budget allocation and the actual amounts reimbursed by the Department.

TABLE 8C
BUDGET ALLOCATION

- Target A = 50 000 WIES5, i.e. the annual base throughput volume or workload for the hospital
- Total unit rate per WIES5 (major providers) = $2 076
- Budget allocation (WIES5 x total unit rate) = $103.8 million for the hospital

8.20 The way in which the hospital in the above example could allocate its total WIES target to various Diagnosis Related Groups (i.e. the hospital defines its actual workload for the year in terms of the mix of surgical patients planned to be admitted for the year) is set out in Table 8D below.

TABLE 8D
CALCULATION OF ANNUAL HOSPITAL FUNDING

Diagnosis Related Group (patient group)	*Inlier Equivalent Separations (a)*	*Cost weight*	WIES
Coronary bypass (over 64 years of age)	1 000	8.156	8 156
Hip replacement (with complications)	500	4.469	2 234
Anxiety disorders	200	0.423	846
etc	etc	etc	etc
Total WIES (= Target)			50 000

(a) Inlier Equivalent Separations - a method of counting all of the patients within a patient group, that is, including long and short stay patients.

Initiatives taken by the Department to enhance casemix policy and formula

8.21 Since the commencement of the casemix formula, there have been significant changes to the technical operation of the formula principally to prevent hospitals from taking unfair financial advantage of the system and to more accurately reflect the cost of providing acute health services. An illustration of some of these developments are outlined below:

- the annual revisions of cost weights including clinician consultation;
- the introduction of performance incentives in 1994-95 to reward additional access for elective and emergency patients;
- the introduction of strategies to prevent hospitals securing an unfair financial advantage such as the capping of the excessive growth in Same Day services in 1995-96;
- major changes to the formula's complexity and sophistication to improve its fairness by, for example, increasing the number of patient groups upon which payment was based from 522 in 1993-94 to 664, plus an additional 88 Same Day patient groups in 1996-97;
- the development of a separate classification and funding system for outpatients (Victorian Ambulatory Classification System) based on clinical specialty which commenced on 1 July 1997; and
- the fixed overhead grant (now known as the fixed rate) was changed from a flat $850 per WIES (plus $50 for small rural hospitals for increased costs of long service leave) to the establishment of 5 different rates from 1997-98, reflecting the various categories or groupings of hospitals.

Future developments

8.22 Comments provided by the Department are outlined below.

What major changes in the development of casemix and associated initiatives are planned for the future?

8.23 Future developments/priorities include:

- continued refinement to the inpatient and outpatient casemix classification systems;
- examining the feasibility of introducing ambulatory output-based funding for hospitals not currently funded by the Victorian Ambulatory Classification System;
- development of a more refined system of classifying hospitals emergency departments and associated funding levels;
- introduction of an output payment system for non-admitted radiation oncology services;
- continued focus on the Elective Surgery and Emergency Services Enhancement Programs to provide incentives for desirable access objectives and demand management;
- continued development of innovative programs such as Hospital in the Home and piloting the co-ordinated care trials;

- development and introduction of strategies to integrate quality as a significant element of health service delivery;
- examination of population resource distribution taking into account age, sex, underlying morbidity, socio-economic disadvantage, availability of other services and, in rural areas particularly, cluster size of population;
- integration with other sectors to effect better care through substitution where appropriate; and
- increased emphasis on prevention of ill health or prevention of complications of chronic illness (secondary prevention) so as to improve health and reduce acute care needs.

How do you envisage casemix changing given emerging trends at the national and State level?

8.24 According to the Department, "the current funding arrangements have the flexibility to be able to take into account emerging needs where appropriate. The Department has already successfully introduced performance schemes around a core of casemix. Such enhancements as outlined above will continue.

In the current negotiations towards an Australian Health Care Agreement (the proposed successor to Medicare), the Commonwealth proposes to use a casemix approach in determining the level of, and accountability for, outlays to States. It, at the same time, proposes to oblige those States not currently using casemix, to introduce it. States, like Victoria, with well developed casemix funding are advantaged in this scenario".

COMPREHENSION/COMPLEXITY OF THE CASEMIX FORMULA

Overall audit comment

8.25 Five out of the 6 networks and 8 out of every 10 hospitals rated the casemix formula, in terms of comprehension, as either complex or very complex. Some of the more common reasons outlined to audit centred around the formula having too many variables and the variations in cost weights from one year to the next.

8.26 Delays in the distribution of WIES conversion software, which is used to calculate patient WIES values in order to manage funding allocations, and the complexity of the formula were found to partially restrict the ability of hospital managers to plan hospital activities.

Views of networks and hospitals

In your opinion, how would you rate the casemix formula in terms of comprehension?

	Very complex	*Complex*	*Not complex at all*
Networks	2 (33%)	3 (50%)	1 (17%)
Metropolitan hospitals	7 (54%)	3 (23%)	3 (23%)
Rural hospitals	19 (40%)	22 (47%)	6 (13%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.27 Numerous networks and hospitals rated the casemix formula as "very complex" or "complex" due to the following reasons:

- there are too many variables and the formula is very difficult to comprehend;
- the variations in cost weights and their impact;
- constant changes to the formula;
- the number of individual patient groups;
- a lack of information to enable reconciliation of funds with throughput targets; and
- a large amount of reporting and detail which is not relevant to improving quality.

8.28 Chart 8E presents an extract of the Department's *Victoria - Public Hospitals Policy and Funding Guidelines 1997-98* which, although attempting to provide clear examples of calculation of a patient's hospital stay (patient episode of care) using WIES (Version 5), demonstrates the complexities of the formula.

CHART 8E
EXAMPLES OF WIES (VERSION 5) CALCULATIONS

Example A: "A patient is allocated to Diagnosis Related Group 922 (Other third degree burns with skin graft Age > 64) and spends 50 days in hospital including 3 days in the Intensive Care Unit on mechanical ventilation.

The hospital is eligible for mechanical ventilation severity co-payments.
Mechanical ventilation days = 3

The patient is a high outlier because length of stay minus mechanical ventilation days (50 days - 3 days) is greater than the high boundary (34 days). Therefore:

High outlier days	= Length of stay - mechanical ventilation days - high boundary = 50 - 3 - 34 = 13
IES (Version 5)	= 1 + Outlier adjustment factor x outlier days/average length of stay = 1 + 0.7 x 13/ 28.33 = 1.321
WIES (Version 5)	= 1 x weight + (IES5 - 1) x high outlier weight + mechanical ventilation days x mechanical ventilation rate = (1 x 9.3000) + (1.321 - 1) x 9.300 + 3 x 0.7729 = 14.604"

Example B: "A patient is allocated Diagnosis Related Group 30 (Carpal tunnel release) and stays 8 days. Complications during care did not warrant mechanical ventilation.

The patient is a high outlier (high boundary is 3 days) with no mechanical ventilation co-payment. Therefore:

Outlier days	= Length of stay - high boundary - mechanical ventilation co-payment days = 8 - 3 - 0 = 5
IES (Version 5)	= 1 + outlier adjustment factor x outlier days/average length of stay = 1 + 0.7 x 5/1.10 = 4.182
WIES(Version 5)	= 1 x weight + (IES5 - 1) x high outlier weight = 1 x 0.371 + (4.182 - 1) x 0.371 = 1.551"

Source: Department of Human Services *1997-98 Victoria Public Hospitals Policy and Funding Guidelines*.

Access by hospitals to information on output definitions

8.29 The ability of network and hospital administrators to effectively manage hospital activities is partially restricted by the complexity of the formula. In particular, audit found that the annual changes made to the program lines in the WIES formula are now too numerous to permit simple spreadsheet analyses by hospitals. As such, hospitals are reliant on the receipt of WIES conversion software (i.e. the annual changes made by the Department to each version of WIES to allow for changes in acute health policy such as new definitions for Same Day services which result in differences in the type and mix of patients and the volume of throughput) from HCS Australia Pty Ltd. Currently, HCS Australia Pty Ltd, under contract to the Department, provides software to networks and hospitals to assist in the analysis of potential WIES volumes based on past performance. As part of this process, a network or hospital would analyse the potential impact of the current version of WIES on the delivery of existing and future services.

8.30 In discussions with Chief Executive Officers of certain rural hospitals it was evident that delays were experienced in the receipt of WIES conversion software. The consequent lack of access to such information is not conducive to hospitals making informed responses to additional throughput offers until after the first quarter of the financial year when analyses have been completed.

8.31 The Department should ensure the timely release of WIES conversion software which needs to be released before, or soon as practicable, following the issue of the *Victoria - Public Hospitals Policy and Funding Guidelines* to facilitate efficient annual financial and service planning by networks or hospitals.

TRANSPARENCY

Overall audit comment

8.32 The transparency of the casemix payment system is an improvement over past historically-based funding processes, as networks and hospitals can now observe at a macro level the basis of funding allocations by the volumes, price and the mix of patients treated at each network or hospital. Audit therefore considers that the formula is transparent at the macro level.

8.33 Despite extensive efforts made by the Department to ensure that a fully transparent process is undertaken, the audit disclosed that the acute health industry is generally of the view that transparency could be improved in relation to various elements of the formula. Priorities suggested by the industry include:

- the calculation of the fixed overhead grant;
- derivation of cost weights; and
- establishment of the base WIES payment (i.e. the total unit price).

8.34 Various other transparency issues that require attention related to the lack of audit trails, Target A base throughput levels, and the training and development grant.

8.35 Audit was advised by the Department that the complexity of the formula has led to criticisms of lack of transparency by hospitals. This particularly applies to smaller rural hospitals. The "cost weight study, which collects the annual cost data, is a public and transparent process and the report is available to the industry. Extensive consultation takes place with a wide range of clinical staff each year and the final adoption of cost weights is made in conjunction with the field."

8.36 The Department should, however, be more explicit in the *Victoria - Public Hospitals Policy and Funding Guidelines* by emphasising that casemix, as it applies in the Victorian context, is a budget share model where the actual costs of patient care may not be adequately compensated due to limitations of purchasing services within an overall finite acute health budget. In audit opinion, these guidelines could be more comprehensive and informative through cross-references to departmental technical bulletins. Technical bulletins should be used to illustrate the rationale and basis for any major changes in the casemix funding formula, e.g. major changes to cost weights.

8.37 Audit found after an examination of the Department's acute health records, the Acute Health Division's casemix policy development procedures and internal control systems that there was no evidence of manipulation of the operation of the formula to adversely impact on the financial outcomes for networks or hospitals (e.g. hidden productivity savings).

Views of the Department, networks and hospitals

Does the Department ensure that its administration of the casemix formula is a transparent process for networks and hospitals?	Yes No	✓

8.38 According to the Department, "ensuring transparency of the funding components and the basis for calculations largely flows on from the detailed level of consultation and liaison which is undertaken with the field.

"The Department engages an independent external consultant to conduct the study to determine the cost weights. Health Solutions Pty Ltd conducted the 1996 Cost Weights Study of 1995-96 inpatient activity. A review of all weights was undertaken and the proposed areas of change were considered both through the study itself and through formal departmental consultations.

"A detailed clinical consultation process was carried out by the consultants and by the casemix Clinical Sub-Committee".

Are you satisfied with the transparency (i.e. the ability to examine the methods and processes used by the Department to derive its funding formula) of the casemix formula in any of the following areas:

	Completely satisfied	*Satisfied but could be improved*	*Not satisfied*	*Other (a)*
Calculation of bonuses -				
Networks	3 (50%)	1 (17%)	2 (33%)	
Metropolitan hospitals	4 (31%)	5 (38%)	4 (31%)	
Rural hospitals	12 (26%)	9 (19%)	15 (32%)	11 (23%)
Calculation of fixed overhead grant (for acute inpatient payments) -				
Networks	1 (17%)	1 (16%)	4 (67%)	
Metropolitan hospitals	3 (23%)	4 (31%)	6 (46%)	
Rural hospitals	10 (21%)	12 (26%)	21 (45%)	4 (8%)
Calculation of public medical payment -				
Networks	1 (17%)	4 (67%)	1 (16%)	
Metropolitan hospitals	3 (23%)	6 (46%)	3 (23%)	1 (8%)
Rural hospitals	11 (23%)	16 (34%)	16 (34%)	4 (9%)
Calculation of reimbursement -				
Networks	1 (17%)	1 (17%)	2 (33%)	2 (33%)
Metropolitan hospitals	5 (39%)	5 (38%)	2 (15%)	1 (8%)
Rural hospitals	14 (29%)	12 (26%)	15 (32%)	6 (13%)
Calculation of specified grants -				
Networks	1 (17%)	2 (33%)	3 (50%)	
Metropolitan hospitals	3 (23%)	4 (31%)	6 (46%)	
Rural hospitals	13 (28%)	18 (38%)	11 (23%)	5 (11%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Are you satisfied with the transparency (i.e. the ability to examine the methods and processes used by the Department to derive its funding formula) of the casemix formula in any of the following areas:

	Completely satisfied	*Satisfied but could be improved*	*Not satisfied*	*Other (a)*
Calculation of trim points -				
Networks	1 (17%)	3 (50%)	2 (33%)	
Metropolitan hospitals	5 (38%)	3 (24%)	5 (38%)	
Rural hospitals	9 (19%)	14 (29%)	12 (26%)	12 (26%)
Calculation of variable payments -				
Networks	1 (17%)	3 (50%)	2 (33%)	
Metropolitan hospitals	5 (38%)	4 (31%)	4 (31%)	
Rural hospitals	10 (21%)	17 (36%)	16 (34%)	4 (9%)
Definition of Inlier Equivalent Separations -				
Networks	1 (17%)	5 (83%)		
Metropolitan hospitals	5 (38%)	5 (38%)	3 (24%)	
Rural hospitals	13 (28%)	20 (42%)	7 (15%)	7 (15%)
Derivation of cost weights -				
Networks	1 (17%)	2 (33%)	3 (50%)	
Metropolitan hospitals	2 (15%)	6 (46%)	5 (39%)	
Rural hospitals	6 (13%)	12 (26%)	19 (40%)	10 (21%)
Establishment of the base WIES payment -				
Networks		3 (50%)	3 (50%)	
Metropolitan hospitals	2 (15%)	7 (54%)	4 (31%)	
Rural hospitals	6 (13%)	18 (38%)	19 (40%)	4 (9%)
Level of complexity of the formula -				
Networks	1 (17%)		5 (83%)	
Metropolitan hospitals	2 (15%)	5 (39%)	6 (46%)	
Rural hospitals	5 (11%)	15 (32%)	22 (46%)	5 (11%)
Setting of WIES targets -				
Networks		4 (67%)	2 (33%)	
Metropolitan hospitals	4 (31%)	4 (31%)	5 (38%)	
Rural hospitals	4 (9%)	14 (30%)	26 (55%)	3 (6%)
Development of information standards e.g. coding standards and Victorian Inpatient Minimum Dataset definitions -				
Networks	1 (17%)	4 (66%)	1 (17%)	
Metropolitan hospitals	5 (38%)	8 (62%)		
Rural hospitals	6 (13%)	21 (45%)	9 (19%)	11 (23%)

(a) "Other" comprises either "No response" and "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.39 Areas suggested by many hospitals where improvements could be made to the transparency of the formula are detailed below:

- the basis for the calculation of the casemix formula in all areas;
- WIES targets which are often arbitrary and do not provide adequate allowance for growth;
- more openness from the Department regarding casemix and how figures are achieved;
- significantly simplifying the formula; and
- the rationale for changes to cost weights.

8.40 In addition, given the important role of networks, the Department needs to consider the following criticisms made by individual networks regarding the transparency of the formula:

- The Department uses the complexity of the formula and lack of transparency to hide various budget cuts (e.g. new cost weights for Diagnosis Related Group payments and the 1.5 per cent productivity improvement);
- Pricing is substantially related to available funds and does not relate to benchmark costs, which could be a more readily understood basis for the formula;
- WIES targets are not replicable with the data available to networks. When data source and methodology are agreed, outcomes may not necessarily be reproducible;
- The casemix formula is too complicated;
- The casemix formula has led to the introduction of irrelevancies, whereby there is numerous detail on small components of the whole business; and
- Base WIES payments and the setting of WIES targets should be more directly linked to the Department's planning objectives.

Lack of audit trails

8.41 The audit disclosed that audit trails within departmental records to account for the initial development of several important components of the casemix formula did not exist. For example, the initial quantification of the following components of the formula has not been adequately documented by the Department:

- the calculation of the fixed overhead grant;
- the policy parameters governing the initial allocation of WIES across the hospital system; and
- the rationale or justification for the size of the training and development grant.

8.42 The Department's justification for the absence of an auditable documented trail relates to the short time frame in which casemix was implemented and the high turnover of key staff during this early period.

Clarification of the fixed overhead grant

8.43 The fixed overhead grant is added to the variable component to comprise the total unit rate paid by the Department for Target A WIES. The Department has reviewed the fixed overhead grant to introduce a price tariff structure in 1997-98 for the total unit rate across the 5 different hospital groups. The price paid per additional WIES, i.e. for output beyond Target A, excludes the fixed overhead grant. This lower price is referred to as the marginal rate.

8.44 The fixed overhead grant represents the additional costs of operating an efficient hospital that are not accounted for in the development of the variable component (unit Diagnosis Related Group payment). The original intention of casemix policy was to include a fixed overhead grant comprising hospital costs such as telephone, electricity, water, administration and the public medical payment (payment for medical officers' salaries).

8.45 The 1997-98 *Victoria - Public Hospitals Policy and Funding Guidelines* refers to the fixed overhead rate (previously known as fixed overhead grant) as reflecting hospital infrastructure costs, however, audit was advised by the Department that the fixed overhead rate was only a notional rate rather an actual cost. A notional rate, according to the Department, permits flexibility in setting the final total unit rate to meet total acute health budget limits and to achieve health policy objectives, such as self-sufficiency for smaller rural hospitals. The Department believes that the true nature of the fixed overhead rate is widely known in the field as it has been disclosed during its annual industry presentations to networks and hospitals on the formula.

8.46 The terminology "fixed overhead" rate should be reviewed by the Department in order to better represent its true purpose as a price setting mechanism. The fixed overhead rate may more appropriately be referred to as Price A and the variable component Price B. In reviewing the fixed overhead rate component of the casemix funding formula, the Department should ensure that the pricing parameters affecting the overall financial viability of hospitals in each category are adequately documented.

Target A base throughput levels

8.47 The annual base throughput volume or workload for each network or hospital (Target A) was calculated by the Department from the hospital activity levels recorded for 1992-93. Consequently, the issue of equity was not considered by the Department in the initial Target A allocations. Although some limited reviews have taken place, the largely historic Target A allocations for metropolitan hospitals have not been sufficiently reviewed from an equity of access standpoint since the commencement of casemix.

8.48 In view of the known changes in the demand for acute health services, medical technology, micro-economic reform, hospital efficiencies and capital investment, the current Target A allocations may:

- no longer be relevant in terms of new long-term planning strategies, e.g. the 1996 Metropolitan Health Services Plan;
- harbour diseconomies created through internal resource allocations, differential efficiency improvements or inequitable capital output ratios (rate of utilisation of items of capital on a throughput basis);
- maintain inequitable resource allocations between network or hospital catchments, e.g. supporting expansions in a range of inappropriate services as measured by intervention rates (i.e. number of occasions of medical treatment for a particular type of procedure or treatment in relation to the patient population); and
- produce sub-optimal health outcomes for particular groups of consumers who find it difficult to access acute health services.

8.49 In audit opinion, any inequities that existed in the system in 1992-93 have been maintained through the funding formula. As such, a review of the appropriateness of Target A allocations is needed to:

- assess whether there is a mismatch of Target A allocations to the demand for acute health services over the entire hospital system;
- account for any changes in hospital service profiles since 1992-93; and
- address any problems in the equity of access created since 1992-93 where, for example, hospitals may have concentrated on profitable yet inappropriate services, thereby reducing access to other more appropriate services.

8.50 Achievement of acute health policy objectives (e.g. access, quality and fairness of the services purchased) would be enhanced through the conduct of such a review. In audit's view, Target A allocations should be based on the principles contained in the 1996 Metropolitan Health Services Plan that is based on a per capita or population basis. Audit is of the view that this is a more equitable method of determining the demand for health services as it is based on the acute health needs of the catchment population rather than on historic allocations.

Training and development grant

8.51 The training and development grant funds:

- training activities conducted in hospitals for student doctors, nurses and allied health undergraduates; and
- medical research projects conducted in hospitals or in association with universities.

8.52 Audit was advised by the Department that refinements of the patient classification system have significantly reduced the need for this funding as a component of training and development grants. Audit was informed that the Department's original estimation for funding the training and development grant was set at 10 per cent of the acute health budget. The training and development grant includes a compensation payment in recognition of the greater complexity of patients located in tertiary teaching hospitals.

8.53 While the grant was reviewed by the Department in 1995-96, the initial difficulty of separating training costs from the provision of acute health services was not resolved. A further review of the grant by the Department resulted in a reduction of the grant by $34 million due to the introduction of various severity related payments in the formula.

8.54 In audit opinion, there is a lack of transparency and accountability for the use of training and development grant funds by hospitals and universities. The effectiveness and outcomes of hospital training activities have not been assessed by the Department.

8.55 Audit was informed that the Department is currently considering an improved accountability process for the payment of funds from the training and development grant, based on yet to be determined measures of output. Nevertheless, the Department has not conducted a review of the training and development grant to establish whether the:

- level of funds granted to teaching hospitals supports an effective training system; and
- funds spent on medical research are accounted for in terms of their efficient, effective and economic use by hospitals and universities.

8.56 The Department should review training and research activities funded under the training and development grant across networks, hospitals and universities to ensure that funds have been properly expended on activities which provide an effective level of training and research.

Overall suggestions to improve transparency of the formula

8.57 Transparency of funding arrangements would be improved by the Department providing:

- details in its *Victoria - Public Hospitals Policy and Funding Guidelines* of the methods used by the Department to allocate output funding, adjust outlier payments and calculate the total unit rate and specified grants within the constraints of the annual acute health budget;
- information on how specific cost weights are adjusted and the consequent balancing adjustments to other patient groups;
- the Department's rationale for the re-distribution of Target A allocation between similar networks or hospitals; and
- disaggregated output figures for individual network hospitals in the *Victoria - Public Hospitals Policy and Funding Guidelines.*

8.58 The Department should also periodically issue technical bulletins to provide an authoritative source of information for networks or hospitals with regard to the analyses and other considerations for any changes to the casemix funding formula or acute health policies.

ABILITY TO MANAGE THE OUTPUT - BASED SYSTEM

Overall audit comment

8.59 Two-thirds of networks and hospitals rated the casemix formula as difficult to manage. In audit opinion, the magnitude of this negative response warrants the Department examining the various difficulties outlined to audit with a view to making the process more timely and understandable, thereby enhancing the ability of networks and hospital administrators to manage.

Views of networks and hospitals

How would you rate the casemix formula in terms of ability to manage?

	Very difficult	*Difficult*	*Not difficult at all*
Networks		4 (67%)	2 (33%)
Metropolitan hospitals	2 (15%)	6 (47%)	5 (38%)
Rural hospitals	8 (17%)	24 (51%)	15 (32%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.60 Areas identified by networks as "very difficult" or "difficult to manage" are listed below:

- there is no certainty due to ongoing changes to funding definitions and pricing (e.g. as networks and hospitals often do not know the funding per patient group until after the first quarter when reconciliations can be performed);
- for the new output funding calculation each year, it often takes months to reconcile the calculation between the Department and the network (e.g. as the definition and the associated funding for a particular patient group classification can change from year to year);
- the implicit cross-subsidisation with and between programs;
- the lack of information technology systems to support casemix;
- the details of instructions to be followed to produce information;
- it requires a tremendous balancing act to cope with all elements of the formula without incurring penalties; and
- it drives performance towards ever-reducing cost benchmarks with some unintended consequences (e.g. networks may become more efficient but to achieve this, networks may devote less attention to maintenance and quality).

8.61 Hospitals offered the following comments:

- the formula seems overly complex;
- there is a lack of adequate monitoring systems, particularly in rural health;
- the frequency with which cost weights change does not reflect hospital procedures; and
- the output-based funding system is not suitable for smaller rural hospitals.

TIMELINESS OF REPORTS FORWARDED TO HOSPITALS

Overall audit comment

8.62 The majority of hospitals confirmed that monthly reports of each hospital's patient group reimbursements are forwarded in a timely manner. Four out of every 10 hospitals did not regard the annual reports provided by the Department on comparative treatment costs as useful for the purpose of managing the efficient provision of acute health services.

Views of the Department and networks

Does the Department of Human Services provide all networks and public hospitals with an annual report of their comparative Diagnosis Related Group costs?	Yes No	✓

Do hospitals receive their output payment information from the Department in a prompt manner? If there have been delays, what initiatives are in train to reduce delays in the waiting time? What has been the impact of any such initiatives?

8.63 According to the Department, "hospitals are cashflowed during the financial year for the variable payment component of their budget based on the agreed Health Service Agreement output targets. The assessment of a hospital's performance against the Agreement targets is on an annual basis.

"However, during the financial year the Department undertakes interim assessments of each hospital's year-to-date performance on a quarterly basis to ascertain whether or not the agreed targets, will be achieved. The quarterly assessments are undertaken as soon as the inpatient throughput data is available to the Department, i.e. approximately 7 weeks after the end of the quarter.

"To enable the hospitals to undertake their own assessment of performance against agreed targets, the Department funds HCS Australia Pty Ltd to provide each hospital with a monthly report of their inpatient throughput data from the Victorian Inpatient Minimum Dataset".

According to the Department, are the hospitals' monthly reports on cost reimbursements forwarded in a timely manner?	Yes No	✓

In the Department's opinion, is the frequency of an annual report on comparative cost efficiency sufficient for public hospitals to effectively and efficiently manage acute health services under the casemix payment system?

According to the Department, more frequent data are available.

Are the monthly reports on your hospital's Diagnosis Related Group cost reimbursements forwarded by the Department of Human Services in a timely manner?

	Yes	*No*	*Other (a)*
Metropolitan hospitals	9 (70%)	2 (15%)	2 (15%)
Rural hospitals	38 (81%)	6 (13%)	3 (6%)

(a) "Other" refers to "No response" or "Do not know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

If you answered No, what is the usual delay experienced by your hospital in receiving these monthly reports

	Over 3 months	*2 -3 months*	*1 -2 months*	*0 -1 month*	*DK*
Metropolitan hospitals		1 (50%)			1 (50%)
Rural hospitals	3 (50%)	1 (16%)	1 (17%)	1 (17%)	

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Are the annual reports provided by the Department of Human Services on comparative Diagnosis Related Group costs for Victorian hospitals useful for the purposes of managing the efficient provision of acute health services?

	Very useful	*Useful*	*Not very useful*	*Of no use at all*	*No response*
Metropolitan hospitals		6 (46%)	6 (46%)		1 (8%)
Rural hospitals	3 (6%)	23 (49%)	17 (37%)	3 (6%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.64 The most common reasons given as to why the annual reports provided by the Department on comparative patient group costs for hospitals are either not very useful or of no use at all are listed below:

- the background and explanatory data is insufficient;
- definitions are ambiguous, therefore comparisons are difficult to make; and
- patient classification groups are too broad to be of great use.

8.65 Nine rural hospitals commented that the size of the organisation is another factor considering their low volumes of patient throughput compounded by the lack of time and resources to analyse the report.

8.66 Six hospitals, comprising one large metropolitan and 5 rural hospitals claimed that the reports are provided too late to be useful.

OPPORTUNITY TO GIVE FEEDBACK TO THE DEPARTMENT

Overall audit comment

8.67 Audit was advised by the Department that it "carries out, through its Committee processes and metropolitan and rural consultations, an extensive collaborative process with the industry. Existing policy is reviewed and changes are canvassed. These consultations have led to a number of changes in the operation of casemix. The inability or unwillingness to adopt every suggestion made does not amount to a lack of consultation."

8.68 The extensive processes implemented by the Department to elicit feedback on the effectiveness of the formula were not considered to be satisfactory by half the hospitals. The majority of these hospitals are located in the metropolitan areas. In those cases where networks and hospitals felt they were given ample opportunity to provide feedback, a wide range of examples were provided where suggestions of the majority had been accepted by the Department. Sixteen rural hospitals claimed that their suggestions were either never or seldom adopted.

8.69 Based on some of the views of networks and hospitals, the Department has not maximised the potential benefits to be derived from obtaining the views of the entire acute health industry. In audit opinion, the Department should assess ways in which its consultative process could be enhanced to address the various concerns of networks and hospitals.

Views of the Department, networks and hospitals

Has the Department established formal channels of communication that allow networks and public hospitals to have an input into the development of Victoria's casemix funding policy?

Have networks and hospitals been given the opportunity to contribute feedback to the Department of Human Services on the effectiveness of casemix formula?

8.70 According to the Department, "the development of the *Victoria - Public Hospitals Policy and Funding Guidelines* for public hospitals is undertaken with extensive industry consultation. Industry groups, including clinicians and administrators from all public hospitals, have provided substantial advice and support in the development of general policy initiatives, classification and implementation issues.

"As part of the development of the 1997-98 purchasing policy, an extensive regional consultation process was carried out. Consultation provides a mechanism for the Department, networks and regions to raise issues and refine policy.

"Appendix 1 of the 1997-98 guidelines lists the major consultative groups set up by the Department which have had input into the funding policy. They include the:

- Victorian Casemix Advisory Committee;
- Casemix Clinical Sub-Committee;
- Sub-Acute Committee;
- Victorian Ambulatory Classification System Advisory Committee;
- Acute Health Quality Committee;
- Victorian Advisory Committee on Casemix Data Integrity;
- Advisory Committee on Elective Surgery; and
- Radiation Oncology Steering Committee".

How would you rate the opportunity to contribute feedback to the Department of Human Services on the effectiveness of the casemix formula?

	Extensive	*Satisfactory*	*Not satisfactory*	*No Opportunity*
Networks	2 (34%)	3 (50%)	1 (16%)	
Metropolitan hospitals	1 (8%)	3 (23%)	6 (46%)	3 (23%)
Rural hospitals		27 (57%)	12 (26%)	8 (17%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

If Extensive or Satisfactory, have your suggestions been effectively adopted in subsequent casemix formula?

	Always adopted	*Often adopted*	*Sometimes adopted*	*Seldom adopted*	*Never adopted*	*No response*
Networks		1 (20%)	3 (60%)			1 (20%)
Metropolitan hospitals		2 (50%)	2 (50%)			
Rural hospitals		1 (4%)	10 (37%)	11 (41%)	5 (18%)	

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.71 Suggestions made by various networks and hospitals that have been incorporated by the Department in the casemix formula are outlined below:

- need to address inconsistencies in costing systems used for cost weight studies;
- improve the fairness of bid funding allocations;
- alterations to Target A allocation;
- alterations to training and development grants;
- alterations to the Elective Surgery Enhancement Program;
- alterations to the Emergency Services Enhancement Program;
- need for audit of formula amendments;
- outpatient funding to be based on workload;
- additional moneys allocated to neonatal funding;
- consistencies in definitions and admissions criteria;

- some allowance for prosthetics;
- additional recognition for rural hospitals, e.g. in relation to the Rural Core Specialist grant; and
- the annualisation of targets through the non-introduction of quarterly targets for small hospitals.

Consultative process adopted by the Department

8.72 Audit found that the Department has provided an extensive consultative framework for administrators and clinicians in networks and hospitals to contribute feedback and raise issues on casemix funding policy.

8.73 The Department conducts regional consultations between November and February of each financial year to encourage discussion among senior hospital managers regarding casemix funding policy. The Department also receives and responds to submissions on the casemix formula from hospital managers and other industry groups throughout each year.

8.74 The responsiveness of the Department to the feedback process, however, is limited by the tight time lines for incorporating any agreed changes to the following year's formula. For example, any unintended impacts of casemix policies are not usually evident until the second half of any financial year when data trends become known. The Department has brought forward the release of its funding policy guidelines and the 1997-98 guidelines were released in May 1997. In comparison, the release of the 1996-97 *Victoria - Public Hospitals Policy and Funding Guidelines* occurred in June 1996.

PROMOTION OF EQUITY OF FUNDING

Overall audit comment

8.75 The Department advised that a structured tender process was carried out for the allocation of bid funding in 1996-97 and 1997-98. The Department needs to assess its procedures given that only 18 per cent of hospitals believe that the negotiation process for Contract Option and Contract Bid funding to have been equitably administered by the Department. While one-third did not know, half the hospitals felt that an equitable process was not undertaken by the Department. Based on this survey result, improvements in this regard should be introduced.

8.76 On the premise that the various elements of the casemix formula should always be seen as promoting an equitable payment system, the findings from audit inquiries in this particular area are considered to be unsatisfactory. For example, in relation to 8 out of the 14 components listed by audit, between 3 and 5 networks believe that an equitable payment system is only promoted sometimes and in some cases not at all. Areas of particular concern to audit relate to the calculation of the fixed overhead and specified grants, the establishment of standard unit rate and the setting of output targets. These factors were also cited by slightly more than half the hospitals as only promoting an equitable payment system on some occasions or in some cases never. Specific areas where hospitals can be disadvantaged through inequitable aspects of the casemix funding system relate to severity of illness, the capping of Same Day targets, capital inequities and tender processes for additional funding.

8.77 Half the networks and almost the same proportion of hospitals reported that they were disadvantaged to some extent in terms of the financial impact to their organisations by casemix funding similar patients on the same basis. The Department should investigate the reasons put forward to support these allegations.

Views of the Department, networks and hospitals

Does the Department believe the tender process for bid WIES to be fair and equitable? Can the process be improved?

8.78 According to the Department, "some 12 000 bid WIES at a fixed price were offered in 1996-97. All bid WIES were accepted, of which 8 000 were accepted by networks and 4 000 were accepted by rural hospitals.

"All networks were allocated the bids made, while some bids from rural hospitals were rejected on the basis that they were unable to perform the work or on the basis that planning guidelines would not be met.

"Based on this success, a formal tender of around 10 000 WIES was conducted on the basis of price and consistency with planning guidelines for 1997-98. These WIES have been awarded by tender below $1 600 for rural hospitals and $1 550 for networks, with an average price of $1 460 per WIES.

"The tender has been successful, with the bid conditions understood and timetable established in the *Policy and Funding Guidelines* met".

Please indicate whether you agree or disagree with the following statement:

	Agree	*Disagree*	*DK*
"The hospital believes that the negotiation process for Contract Option and Contract Bid WIES is equitably administered by the Department"			
Metropolitan hospitals	5 (38%)	3 (24%)	5 (38%)
Rural hospitals	6 (13%)	28 (60%)	13 (27%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Do the following components of the casemix formula for 1997-98 adequately promote an equitable payment system?

	Always	Often	Sometimes	Never	Other (a)
Calculation of bonuses -					
Networks		3 (50%)	2 (33%)	1 (17%)	
Metropolitan hospitals	1 (8%)	3 (23%)	4 (30%)	4 (31%)	1 (8%)
Rural hospitals	3 (6%)	7 (15%)	14 (30%)	5 (11%)	18 (36%)
Calculation of fixed costs component (for acute inpatient payments) -					
Networks	1 (17%)	2 (33%)	2 (33%)	1 (17%)	
Metropolitan hospitals	1 (8%)	3 (23%)	3 (23%)	5 (38%)	1 (8%)
Rural hospitals	2 (4%)	14 (30%)	17 (36%)	7 (15%)	7 (15%)
Calculation of public medical payment -					
Networks	3 (50%)	2 (33%)	1 (17%)		
Metropolitan hospitals	3 (23%)	1 (8%)	5 (38%)	3 (23%)	1 (8%)
Rural hospitals	6 (13%)	14 (30%)	8 (17%)	11 (23%)	8 (17%)
Calculation of reimbursement -					
Networks	1 (17%)	2 (33%)	1 (17%)		2 (33%)
Metropolitan hospitals	2 (15%)	3 (23%)	6 (46%)	1 (8%)	1 (8%)
Rural hospitals	5 (11%)	16 (34%)	7 (15%)	6 (13%)	13 (27%)
Calculation of specified grants -					
Networks	1 (17%)		4 (67%)	1 (16%)	
Metropolitan hospitals	2 (15%)	3 (23%)	6 (46%)	1 (8%)	1 (8%)
Rural hospitals	2 (4%)	11 (23%)	20 (43%)	4 (9%)	10 (21%)
Calculation of trim points -					
Networks	3 (50%)	1 (17%)	1 (17%)	1 (16%)	
Metropolitan hospitals	3 (23%)	3 (23%)	5 (38%)	1 (8%)	1 (8%)
Rural hospitals	3 (6%)	14 (30%)	9 (19%)	3 (6%)	18 (39%)
Calculation of variable payments -					
Networks	2 (33%)	2 (33%)	2 (34%)		
Metropolitan hospitals	3 (23%)	3 (23%)	4 (31%)	2 (15%)	1 (8%)
Rural hospitals	6 (12%)	18 (38%)	12 (26%)	6 (12%)	6 (12%)
Definition of Inlier Equivalent Separations -					
Networks	2 (33%)		2 (33%)	1 (17%)	1 (17%)
Metropolitan hospitals	3 (23%)	3 (23%)	4 (31%)	2 (15%)	1 (8%)
Rural hospitals	7 (15%)	16 (34%)	10 (21%)	3 (6%)	11 (24%)
Derivation of cost weights -					
Networks	2 (33%)		3 (50%)	1 (17%)	
Metropolitan hospitals	1 (8%)	4 (30%)	4 (31%)	3 (23%)	1 (8%)
Rural hospitals		8 (17%)	17 (36%)	5 (11%)	17 (36%)
Development of Diagnosis Related Group classifications -					
Networks	3 (50%)	1 (17%)	2 (33%)		
Metropolitan hospitals		8 (61%)	3 (23%)	1 (8%)	1 (8%)
Rural hospitals		13 (28%)	16 (34%)	2 (4%)	16 (34%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Do the following components of the casemix formula for 1997-98 adequately promote an equitable payment system?

	Always	*Often*	*Sometimes*	*Never*	*Other (a)*
Development of information standards e.g. coding standards and Victorian Inpatient Minimum Dataset definitions -					
Networks	2 (33%)	2 (33%)	2 (34%)		
Metropolitan hospitals	1 (8%)	7 (53%)	3 (23%)	1 (8%)	1 (8%)
Rural hospitals	5 (11%)	11 (23%)	13 (28%)	3 (6%)	15 (32%)
Establishment of the base WIES payment -					
Networks	1 (17%)	1 (17%)	2 (33%)	2 (33%)	
Metropolitan hospitals		6 (46%)	5 (38%)	1 (8%)	1 (8%)
Rural hospitals		14 (30%)	17 (36%)	10 (21%)	6 (13%)
Level of complexity of the formula -					
Networks	2 (33%)	1 (17%)	2 (33%)	1 (17%)	
Metropolitan hospitals		6 (46%)	4 (31%)	2 (15%)	1 (8%)
Rural hospitals	3 (6%)	12 (26%)	16 (34%)	5 (11%)	11 (23%)
Setting of WIES targets -					
Networks		2 (33%)	3 (50%)	1 (17%)	
Metropolitan hospitals	1 (8%)	4 (31%)	6 (46%)	1 (8%)	1 (8%)
Rural hospitals		6 (13%)	26 (55%)	8 (17%)	7 (15%)

*(a) "*Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.79 Reasons offered by networks and hospitals as to why various components of the casemix formula for 1997-98 either never or only sometimes promoted an equitable payment system are listed below:

- The principal failure regards fixed costs. These fail to take into account additional costs relating to infrastructure (e.g. ageing buildings and existing poor design), yet there is no capital available to make these improvements;
- Output targets are influenced by "Other Government Initiatives", thereby providing an opportunity for specific redistribution and purchasing. The reasons for this need to be more transparent to enable equity to be assessed;
- There are areas where subjectivity rather than objectivity comes into the equation; and
- Inadequate consultation in setting targets.

What is the overall financial impact to your organisation of the casemix formula in terms of funding similar patients on the same basis?

	Advan-taged	*Adv'd to some extent*	*No Impact*	*Disadv'd to some extent*	*Disad-vantaged*	*No response*
Networks		1 (17%)	2 (33%)	2 (33%)	1 (17%)	
Metropolitan hospitals		1 (8%)	5 (38%)	5 (38%)	1 (8%)	1 (8%)
Rural hospitals		6 (13%)	17 (36%)	16 (34%)	6 (13%)	2 (4%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.80 In terms of the casemix formula funding "similar" patients on the same basis irrespective of age and complexity, the following examples were cited by networks and hospitals in relation to the overall financial impact to some organisations:

- there was a risk of not appropriately funding highly complex ("above average") patients in major emergency or trauma agencies;
- the formula does not allow substitution and innovation; and
- the cost of services to isolated communities is not well funded.

Severity of illness

8.81 As a general principle, the casemix payment system promotes equity of funding as standard payments are made for defined hospital outputs. However, those hospitals that consistently treat patients with a higher severity of illness or have a specialised range of clinical services (such as the Peter MacCallum Cancer Institute and the Royal Children's Hospital or hospitals which have specialised in the treatment of burns victims, accident trauma and HIV/AIDS patients) have the potential to be underfunded by the formula.

8.82 According to advice provided by the Peter MacCallum Cancer Institute, it is the only cancer specialist facility in the world which is funded under a casemix payment system.

Capping of Same Day targets

8.83 The capping of Same Day targets was based on the historical patterns of Same Day throughput. As indicated in Part 7 of this Report, this created inequitable funding conditions between hospitals which had increased Same Day throughput prior to the cap and those hospitals which had not.

8.84 Audit supports the Department's intention to review Same Day medical targets to reduce any historical inequities inherent in the current Same Day targets for networks and hospitals.

Capital inequities

8.85 Audit appreciates that the issues of capital pricing and charging are very complex and need to take into account a range of policy, technical and implementation issues such as ownership, valuation and an equitable capital baseline between hospitals.

8.86 There are significant variations in the capital output ratios of hospitals (i.e. rate of utilisation of items of capital on a throughput basis) which reduce the benefits of introducing a capital charge into the casemix formula. Further issues relating to the introduction of a capital charge into the formula are discussed later in this Part of the Report.

8.87 The main benefit of a capital charge is to make hospitals more accountable for capital usage and management. If the Department is to introduce a capital charge in the formula to create a fairer and more transparent funding system, these inequities between hospitals in terms of their capital output ratios will need to be addressed.

Tender processes for additional funding

8.88 The Department developed a tender process and invites networks and hospitals to bid for additional funding (known as undifferentiated WIES) each year. Submissions for additional funding are analysed by the Department against acute health policy criteria.

8.89 Audit's assessment of the Department's tender process found that some aspects could be made more equitable, such as:

- specifying the types of health services that it favoured as the purchaser of acute health services; and
- supplying networks or hospitals with the assessment criteria for the tenders.

8.90 Audit's view is that the above comments are applicable to the recently introduced tender pool process by the Department.

ASPECTS NOT COVERED ADEQUATELY IN THE FORMULA

Overall audit comment

8.91 Audit acknowledges that casemix is only but one strategy to achieve health policy objectives. However, there seems to be further opportunities to link casemix to policies other than efficiency.

8.92 In the majority of cases, 4 networks and two-thirds of hospitals commented that the variable component of the casemix formula should either fully or partly provide funding for the following factors:

- quality;
- development of new or innovative clinical practices;
- health outcomes;
- development of new or innovative technology;
- the continuum of care;
- palliative care;
- non-direct care activities such as health promotion, patient education, interpreter services and social welfare counselling; and
- the cost of capital.

8.93 The audit revealed that a number of measures have been instigated by the Department relating to various quality of care initiatives. These measures include funding incentive to encourage acute hospital accreditation, investigatory studies undertaken by the Infection Control Taskforce, the conduct of a series of clinical risk management pilot projects and the extension of patient satisfaction surveys.

8.94 Various submissions provided to audit put forward cases to support additional funding for the maintenance of capital stock and the purchase of replacement and new equipment, more funding to be linked to quality in terms of health outcomes and further moneys to be allocated towards district hospitals serving smaller communities.

8.95 While some issues are under consideration by the Department concerning the capital funding issue, the audit identified a number of matters that need to be addressed by the Department such as the issue of asset ownership and the funding of capital in the future. In addition, various comments have been made by audit in Parts 4, 5 and 9 of this Report regarding the funding of whole episodes of care through the application of expanded Diagnosis Related Groups and restructuring of funding processes where there is potential for the integration of health care services.

8.96 Audit was advised by the Department that specific funding is provided for services that do not fit a casemix approach e.g. heart and liver transplants and neonatal intensive care unit costs.

Views of the Department, networks and hospitals

Does the Department believe that the casemix formula adequately addresses the cost of capital?	Yes No	 ✓

8.97 According to the Department, "funding of capital is currently not undertaken by the casemix formula but by submission under evaluation criteria. Developments to this process are being currently undertaken.

Should the variable component of the casemix formula provide funding or incentives for:

	Fully provide	*Partly provide*	*Not provide*	*Other (a)*
Cost of capital -				
Networks	1 (17%)	2 (33%)	2 (33%)	1 (17%)
Metropolitan hospitals	5 (38%)	5 (39%)	3 (23%)	
Rural hospitals	16 (34%)	14 (30%)	15 (32%)	2 (4%)
Development of new or innovative clinical practices -				
Networks	2 (33%)	2 (33%)	1 (17%)	1 (17%)
Metropolitan hospitals	4 (31%)	7 (54%)	2 (15%)	
Rural hospitals	14 (30%)	17 (36%)	11 (23%)	5 (11%)
Development of new or innovative technology -				
Networks	1 (17%)	3 (50%)	1 (17%)	1 (16%)
Metropolitan hospitals	4 (31%)	7 (54%)	2 (15%)	
Rural hospitals	11 (23%)	19 (40%)	13 (28%)	4 (9%)
Non-direct care activities such as health promotion, patient education, interpreter services and social welfare counselling -				
Networks	2 (33%)	2 (33%)	1 (17%)	1 (17%)
Metropolitan hospitals	3 (23%)	4 (31%)	6 (46%)	
Rural hospitals	15 (32%)	11 (23%)	14 (30%)	7 (15%)
Palliative care -				
Networks	2 (33%)	2 (33%)		1 (17%)
Metropolitan hospitals	5 (38%)	3 (23%)	4 (31%)	1 (8%)
Rural hospitals	23 (49%)	8 (17%)	9 (19%)	7 (15%)
Mental health services -				
Networks	1 (17%)	2 (33%)	1 (17%)	2 (33%)
Metropolitan hospitals	5 (39%)	2 (15%)	4 (31%)	2 (15%)
Rural hospitals	15 (32%)	8 (17%)	13 (28%)	11(23%)
Nursing home type services -				
Networks	1 (17%)	1 (17%)	3 (50%)	1 (16%)
Metropolitan hospitals	5 (38%)	3 (23%)	4 (31%)	1 (8%)
Rural hospitals	16 (34%)	7 (15%)	19 (40%)	5 (11%)
The continuum of care -				
Networks	2 (33%)	2 (33%)	1 (17%)	1 (17%)
Metropolitan hospitals	6 (46%)	3 (23%)	4 (31%)	
Rural hospitals	17 (36%)	14 (30%)	4 (9%)	12 (25%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Should the variable component of the casemix formula provide funding or incentives for:
- *continued*

	Fully provide	*Partly provide*	*Not provide*	*Other (a)*
Geriatric evaluation -				
Networks		3 (50%)	1 (17%)	2 (33%)
Metropolitan hospitals	7 (54%)	3 (23%)	3 (23%)	
Rural hospitals	8 (17%)	16 (34%)	13 (28%)	10 (21%)
Quality -				
Networks	2 (33%)	2 (33%)	1 (17%)	1 (17%)
Metropolitan hospitals	8 (62%)	4 (31%)	1 (8%)	
Rural hospitals	31 (66%)	8 (17%)	4 (9%)	4 (8%)
Health outcomes -				
Networks	1 (17%)	1 (17%)	1 (16%)	3 (50%)
Metropolitan hospitals	8 (62%)	2 (15%)	3 (23%)	
Rural hospitals	23 (49%)	11 (23%)	5 (11%)	8 (17%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.98 The Department advised that, "the above question has definitional problems. However, in terms of quality of care, the Department introduced incentive funding for hospitals achieving or pursuing accreditation with the introduction of casemix funding. Currently, 61 per cent of Victorian public acute hospitals are accredited. By the year 2000, accreditation will be mandatory for all hospitals providing public acute health services.

"The Infection Control Taskforce was established in 1996-97 to advise the Department on a range of issues in relation to infection control practice and policies in Victorian public hospitals. During 1997-98, a report will be released identifying the status of infection control, cleaning, disinfection and sterilisation policies, procedures and resources. It will also identify improvements needed to minimise hospital acquired infections and other areas requiring urgent attention. A broadly-based strategy with separately identified funding to implement acceptable recommendations will be developed by the Department during 1997-98.

"A series of clinical risk management pilot projects have been funded to develop and evaluate new models of clinical risk management in hospitals. The objective is to identify improved systems of delivery of acute care which minimise the risk of occurrence of clinical incidents which may otherwise result in adverse events and, through early intervention, minimise harm when they do occur. An important outcome will be the development of measurable performance indicators for the management of clinical risk in the acute care setting.

"Stage 3 of the patient satisfaction survey will be conducted in all public acute hospitals and networks. Hospitals will be provided with individual reports of their performance and benchmark data with same group hospitals and State averages".

Industry submissions

8.99 In audit opinion, it needs to be recognised that casemix is not designed to deal with some of the more complex issues presented in the following extracts of submissions. In this regard, other measures may need to be considered.

- The funding available for the maintenance of existing capital stock and the purchase of replacement and new equipment is inadequate. Although modern health care systems need fewer beds than previously and significant redistributions need to occur to match population shifts, funding for maintenance of the current stock is insignificant. The replacement cost of Victoria's public hospital infrastructure, according to an authoritative study undertaken by Dr John Deeble in 1994, is estimated at approximately $4 billion. Inadequate maintenance puts the viability of this stock at risk in the medium-term.

  While "big ticket" items such as expensive medical diagnostic equipment may need to be excluded to avoid undue "lumpiness", a large hospital typically holds many millions of dollars worth of medical and non-medical equipment, a portion of which needs to be replenished annually. Funding either a portion of reported depreciation, or modifying the casemix formula to include an equipment component, would be useful measures.

  A more rational approach to funding for infrastructure maintenance and capital consumption is required.

  Another difficulty has been that casemix technology, with annual updates of the weights, frequently lags behind the introduction of new technology, discouraging its dissemination or, at the very least, making it an expensive proposition. A good example is the introduction of stenting in Cardiology.

- There is no direct link between the casemix funding arrangements and quality of care and health outcomes, although much recent literature suggests that such a link would be desirable. Quality is addressed as an "add-on" in that incentives and special grants are provided but consideration of quality of care is not incorporated into resource allocation and the casemix system itself has minimal incentives for quality outcomes. It could be argued the Elective and Emergency Enhancement Programs go some way towards establishing a link between casemix funding and quality. The establishment of a direct relationship between quality, in terms of health outcomes (once appropriate measures have been developed and tested) and funding would enable more appropriate service planning and resource allocation.

- District hospitals serve Victorians who live in smaller communities. They generally have fewer than 70 beds, no salaried doctors and limited financial and human resources, but they account for about 10 per cent of public hospital care episodes.

  In response to community needs, many small rural hospitals have developed a mix of acute, aged and primary care services. District hospitals also provide a whole range of residential and community-based services, as well as health education and prevention programs. This wider approach to the provision of health services allows a more effective utilisation of scarce resources.

The introduction of casemix funding and the concurrent associated budget cuts has had, and continues to have, a significant impact on the level of hospital services provided in small rural townships. During the past 4 years, 15 small rural hospitals have amalgamated their services with neighbouring agencies as a response to the financial imperatives to rationalise services. Ten hospitals have actually closed their acute bed facilities, to be substituted by a range of primary care services, and a further 3 hospitals have converted their facilities to multi-purpose services as part of the Commonwealth Government initiatives (with 2 others expected to come “on-line” soon).

It could be argued that small hospitals be exempted from casemix funding because they are affected unduly by the volatility of their patient load in relation to their fixed costs. They are also less able to adjust their case loads given the absence of alternative providers. It is inappropriate for these hospitals to increase clinical activity in order to remain financially viable. Diseconomies of scale apply to these small isolated hospitals and their fixed operating costs limit the opportunities for efficiency savings. These hospitals are also disadvantaged by having to pay visiting medical staff at a higher rate than that pertaining in larger hospitals on a fee-for-service rather than a sessional basis.

Another concern that small hospitals have in relation to the application of the formula is that small fluctuations in patient throughput figures can have a significant impact on the hospital’s financial situation.

Small rural hospitals service a greater proportion of elderly people and the casemix formula does not fully take into account the increased length of stay associated with treating an ageing population. Respite and palliative care are legitimate roles for hospitals in the country where access to other health services such as community health centres is either limited or non-existent.

The State Government has an obligation to provide accessible and high quality health services to all Victorians. Rural communities should not be disadvantaged simply because of financial difficulties imposed by a funding formula effectively designed for hospitals which treat significant numbers of patients and achieve consistent levels of throughput.

The development of the Healthstreams concept seeks to break down program boundaries and pool resources from a range of State programs to give small hospital managers more flexibility in their resource allocations.

Small district hospitals play an important role in ensuring the viability of rural communities. As the major provider of health services among a network of other providers such as general practitioners, community health centres, local governments and voluntary organisations, the local hospital often takes on the key function of co-ordinating and developing health services for the community. This function is especially important when the complexity of existing funding arrangements across the different tiers of government is taken into consideration.

Small hospitals also have an interdependent relationship with their fee-for-service general practitioners. Hospital throughput depends upon the range of skills offered by the doctor while the viability of a rural medical practice is very much affected by the facilities and skills of personnel available at the local hospital.

The removal of hospital services may have a wider impact than is immediately apparent. Towns are not likely to be able to retain the services of their local general practitioner if the acute hospital beds are closed because the doctor will not have access to facilities for undertaking a range of medical procedures. Without the hospital to co-ordinate and develop health services, it will also be more difficult to retain access to a full range of allied health and paramedical services. A loss of the town's doctor may also lead to the pharmacy business becoming non-viable, while any closure of hospital services also greatly affects local employment opportunities.

It is important to note that rural hospitals are the focal point for emergency care after hours, as communities properly expect that public hospitals will provide care in emergency situations. The funding allocation for unregistered outpatients departments in the existing formula is inadequate for the provision of emergency services, so that small hospitals must bear the additional cost of providing the consumables and nursing resources associated with this service. In many cases there is no funding allocation at all for emergency services. These emergency services provided by small hospitals should be explicitly recognised within the funding formula.

There are particular problems in those communities which have large seasonal population fluctuations where demand for emergency (mostly but not exclusively ambulatory) services can become very heavy during holiday periods.

The complexity and volume of additional reporting requirements under casemix have created difficulties for small hospitals, which have also been required to cut back on administrative resources. Hospitals have also needed to purchase additional information technology systems and services in order to help identify ways to maximise funding although many have not been able to afford to do so.

Country hospitals face additional cost factors such as freight and transport costs, telephone and communication costs, ambulance transfer costs and staff training costs which are not recognised in the casemix formula. In the United States of America, for example, the Medicare/Medicaid formula explicitly caters for variations in the local cost of purchasing goods and services.

No allowance has been made for the systematic capital funding of asset stock. Minor works funding for equipment replacement also needs to be reintroduced.

The rural/isolated payment for ambulance transfers is insufficient and does not even cover the cost of ambulance transfer fees.

Flexibility of funding arrangements is crucial for the viability and continued existence of small hospitals. The development of local rural health services which provide a wide range of services, including acute care, community care and residential services, should be encouraged.

Higher utilisation for primary care in rural areas suggests that people are attending hospitals for care which in the city would be provided at home or on an ambulatory basis by a doctor.

- Prior to the introduction of casemix, there were concerns as to whether it was a funding mechanism that could be universally applied to all hospitals, from a 5 bed small rural hospital to a 600 bed major teaching hospital. Subsequent experience in Victoria and the casemix implementation policies in other jurisdictions have proven that these were justifiable concerns.

  Specifically, the closure of a number of Group E hospitals and the re-weighting of the fixed overhead component in favour of smaller hospitals amply demonstrates how inappropriate it was to slavishly apply an untested funding formula. In light of the Victorian experience other States excluded small hospitals from their casemix funding arrangements.

  The ramifications from this early mistake still resonate. It is essential that the impact of future changes to casemix funding on the overall financial viability of hospitals, in each category, is consistent with government policy regarding location and accessibility of acute health services.

Funding of capital through casemix

8.100 The term "capital" under casemix refers to hospital equipment or infrastructure, e.g. buildings. The funding of these items covers both new acquisitions and replacements. Major capital expenditure of networks and hospitals is currently funded on a submission basis, with additional capital provided for minor works, e.g. building alterations. Submissions are prioritised and funded from a capped pool of funds. At the departmental level, a targeted equipment program is also provided. Funding for maintenance of assets has been built into the recurrent base for hospitals and therefore does not constitute part of the capital program. Audit was informed by the Department that "annual general grants for non-specific equipment and infrastructure maintenance purposes are shared across all public hospitals according to their relative inpatient casemix throughput levels, with a set minimum grant for smaller rural hospitals. These grants are provided to networks and hospitals for expenditure on equipment and/or infrastructure maintenance as may be determined appropriate by the respective organisation." As such, the casemix formula is not used to fund costs associated with capital.

8.101 Hospitals have not been specifically funded for depreciation. However, the proposed introduction of accrual-based budgeting by the Government from 1 July 1998 will result in setting aside funding for the replacement of assets. The funding of outputs provided for in the appropriation would include a component equivalent to the depreciation charge relating to the assets utilised in the production such outputs. In addition, capital injections will be made available to fund the acquisition of assets.

8.102 The current process for funding capital does not encourage hospitals to carefully plan for capital requirements or allocate capital on a rational basis.

8.103 Audit was advised by several Chief Executive Officers of networks that they bid for excessive amounts of capital on the basis that it is essentially a "free resource" which in turn does not encourage the efficient management of assets. However, the Government, as part of its financial management reforms, is progressively introducing a capital charge on fixed asset holdings with the aim of changing management behaviour in relation to asset management by placing a cost on capital, to encourage the disposal of underutilised assets.

8.104 As noted in the report titled *Capital Investment in Victorian Public Hospitals* (November 1995) by Mr J. Deeble of the Australian National University, the condition of asset registers in hospitals at that time was generally poor which reflected a lack of attention in this area.

8.105 The need to address the issue of capital within the casemix formula was recognised at the time casemix was introduced. The then Department of Health and Community Services in its discussion paper *Victoria's Health Reforms, The First Step, Casemix Funding for Public Hospitals*, produced in March 1993, stated inter alia:

> "*Because the capital issue is a large and complex matter, it will continue to be excluded from calculations for one more year. It is expected that arrangements will be worked out in 1993-94 concurrently with the first year of operation of casemix funding to bring capital to account in the second year, 1994-95.*"

Major consultancies

8.106 Since casemix commenced there have been a number of major consultancies commissioned by the Department into various aspects of capital and asset management. These include:

- The report titled *Capital Investment in Victorian Public Hospitals,* November 1995. The purpose of the report was to:

  > *"... document the volume and use of the public hospital capital stock in Victoria, the rate at which it was being consumed, the likely level of replacement spending over the next 10 years and to investigate the feasibility of including replacement funding in casemix payments".*

  In relation to the casemix formula, the report recommended a payment on an adjusted output unit basis for equipment under $400 000. Equipment over this amount would continue to be funded by individual submissions to the Department on an annual basis. Building replacement would be excluded due to the large expenditures involved and their long estimated life.

- The February 1997 KPMG report titled *Discussion report evaluating the issues and options that exist for incorporating capital charges into the existing public hospital pricing formula.* The report indicated that:

  - A capital charge represents the price public health providers "would pay for their capital through an annual price, based upon the value of assets used in service provision". This price includes operating expenses connected with capital, depreciation or consumption of capital and a rate of return on capital employed including all interest costs on debt and target return on equity;

- "The current arrangements do not provide sufficient incentives for hospital administrators to use their capital resources efficiently";
- As a general rule all assets, including buildings, be included in a capital charge to ensure competitive neutrality. The report also indicated that, while capital is excluded from casemix payments [therefore provided as a free resource], public hospitals would continue to enjoy an advantage over the private sector in any competitive bidding process; and
- There were a number of practical issues that needed to be addressed in implementing a capital charge, such as the method of asset valuation adopted, the determination of the level of asset utilisation and the establishment of an appropriate rate for the capital charge to reflect utilisation.
- A report, prepared in October 1997 by Oxley Corporate Finance Limited titled *Analysis and Assessment: Options for Ownership and Control of Assets under the control of networks*, recommended that ownership of assets reside with the Department and for the Department to enter into leasing arrangements with networks and hospitals. A lease charge borne by these organisations would be introduced in conjunction with appropriate funding. If networks and hospitals rationalised asset requirements, the lease charge would be adjusted accordingly.

Asset ownership

8.107 The audit disclosed that the Department had not implemented the recommendations from any of these reviews for a number of reasons. In relation to the Oxley report, the central recommendation of asset ownership by the Department has not been accepted as certain networks opposed this proposition.

8.108 Some networks claim that they own the assets and have the power under recent revisions to the *Health Services Act* 1988 to purchase, sell or lease property. If this view is accepted, a logical extension would be that networks would be free to, for example, sell off a hospital to the private sector, providing service levels and standards are met. In audit's view, central issues of public versus private ownership of hospital assets should remain a government decision.

8.109 In progressing the debate on this issue, it is audit's view that the Oxley report's central recommendation of departmental ownership of assets needs further consideration, particularly as the majority of assets were purchased with taxpayers' funds.

8.110 In addition to taxpayer funding, hospitals also receive private donations or bequests, e.g. for the funding of a wing of a hospital. In these instances, the issue of government ownership becomes less clear. In audit's view, the Department needs to resolve this matter within the broader issue of asset ownership.

8.111 The Department indicated to audit that it expects the current review of the *Health Services Act* 1988 under National Competition Policy to resolve differing views held by the Department and some networks on the roles of owner and operator of facilities.

Private sector provision of public infrastructure

8.112 Another related issue is whether the ownership of hospital infrastructure (i.e. land and buildings) needs to reside in public hands. The examination of both the feasibility and desirability of the sale of public infrastructure to the private sector and lease back to the Government is supported by some Chief Executive Officers of networks and hospitals, as they believe that public infrastructure has progressively been run down through a lack of capital funding. Advocates of this approach see the potential for funds generated from any such sale to provide cash injections into the acute health industry. Decisions on whether the State wishes to increase debt and other liabilities by entering into such arrangements are ultimately a responsibility of the Government. However, in considering this option, some of the key fundamentals that would need to be satisfied are:

- the ability of the Government to strike an acceptable commercial arrangement that protects its interests both financially and in terms of future access to the site at the conclusion of the leasing period;
- the ability to rationalise excess capacity prior to leasing;
- the capacity of the Government to fund leasing arrangements on an ongoing basis;
- whether the leasing arrangements can accommodate changes in demand for infrastructure arising from increases or reductions in the need for health services during the course of the lease; and
- whether the Government wishes to continue to deliver health services for the duration of the leasing arrangements from the designated site.

Adequacy of capital funding

8.113 The Deeble Report estimated capital consumption of buildings and plant, furniture and equipment to be in the order of $160 million per annum. A common message conveyed to audit by Chief Executive Officers of networks and rural hospitals was that the level of capital funding provided to date has been grossly inadequate, whereas the Acute Health Division of the Department is not convinced that this is the case. Audit sought specialist advice on whether interstate benchmarks existed on levels of capital funding provided to hospitals and was advised that no reliable data was available.

8.114 Table 8F highlights the substantial reduction in acute health capital expenditure from $143.9 million in 1991-92 to $72.3 million in 1995-96. Expenditure increased to $108 million in 1996-97.

TABLE 8F
MAJOR WORKS, EQUIPMENT, CONSULTANCIES AND OTHER ITEMS, 1991 TO 1997
($'000)

	1991-92	*1992-93*	*1993-94*	*1994-95*	*1995-96*	*1996-97*
Acute metro total	95 736	118 154	113 126	71 956	43 780	75 262
Acute rural total	48 223	26 270	6 358	23 351	28 523	32 745
Total expenditure	**143 959**	**144 424**	**119 484**	**95 307**	**72 303**	**108 007**

Note: This table excludes expenditure relating to private sector investment as such funding relates to one-off major capital projects rather than Statewide funding of the acute health system. This expenditure does not include any leasing costs. The budget for 1997-98 in relation to capital expenditure grants is $117.7 million.

Source: Capital Management Branch, Department of Human Services' financial reports.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

In the case of rural hospitals, the Department had established and implemented a strategic policy of major redevelopment and/or upgrade of provincial and rural hospitals during the past 5 years, focussing initially on the major provincial base hospitals providing tertiary level acute health services across non-metropolitan Victoria, together with a program of major capital works across the sub-regional/district rural hospitals. A separate capital works program has also been underway for smaller rural hospitals based on reconfiguration and mix of acute and non-acute health services. Under the Metropolitan Health Care Service Plan of October 1996, $950 million is committed over the next decade to a building and infrastructure maintenance and upgrade program commencing 1997-98.

8.115 In attempting to examine more detailed indicators of the adequacy of capital replacement, such as measuring the gap between the replacement value of assets and their written-down value, audit's efforts were hampered by a lack of information. For example, in most cases details on the replacement value of assets did not exist.

8.116 The Department should conduct a study in consultation with individual networks and hospitals based on an agreed set of parameters to assess the adequacy of capital funding and explore the potential, as originally intended by the Government and supported by consultancy advice, for the inclusion in the casemix funding formula of the cost of capital resources consumed. To proceed from a common basis, a review should be conducted to establish the condition of assets in a selected number of hospitals.

8.117 It is apparent that at a departmental head office level there is a requirement for additional management information and performance data, in addition to financial details, on the status of current assets and their utilisation. This should be addressed as part of the recommended joint study into the adequacy of capital funding and included in subsequent management reporting arrangements.

Continuum or whole episodes of care

8.118 The casemix funding formula does not provide funding for services outside of the acute phase of a whole episode of care. The specialised nature of casemix funding is not conducive to providing seamless health care delivery across boundaries defined by funding arrangements for other non-acute services. Consequently, services that provide continuity of care, i.e. care before and after the acute phase, are not linked through a common health funding system.

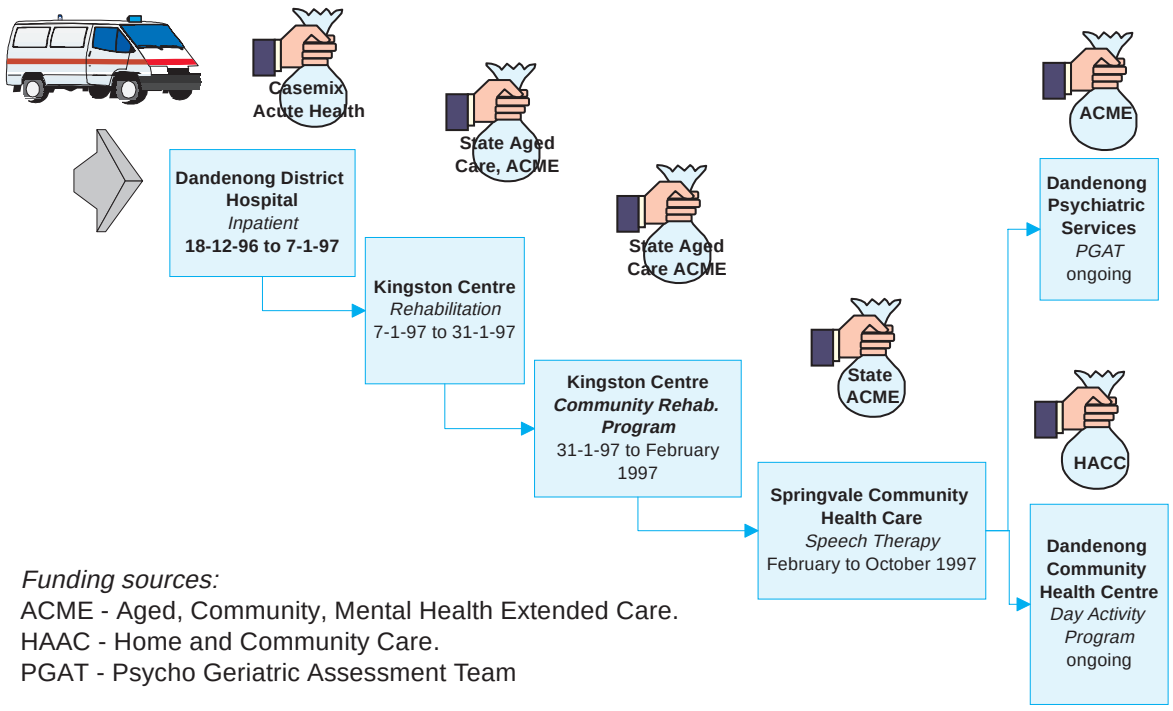
8.119 The current casemix funding formula can allow the funding of whole episodes of care through the application of expanded or extended Diagnosis Related Groups. Audit understands that the Department has commenced a study into the introduction of a common unique patient identifier to allow for the funding of whole episodes of care. The Department should do more in terms of integrating the services under State Government control such as aged care, mental health, community health and ambulatory care by developing a State model of co-ordinated care. As part of this process, networks could package pre and post-acute health care into one service. One of the key objectives for the establishment of networks was to promote the integration of services within their catchment area. The audit disclosed that the Southern Health Care Network is further advanced than other networks in this regard.

8.120 Audit has outlined 2 case studies and related charts (Charts 8G and 8H) that illustrate the various types and sources of funding in terms of the care continuum. The fragmented nature of these funding arrangements is a major barrier to the provision of a more efficient health service delivery system and better quality patient care.

Case study 1

8.121 An elderly patient was admitted to Dandenong District Hospital with a Cerebral Vascular Accident (stroke) in December 1996. He was referred from there to the Kingston Rehabilitation Centre where he was an inpatient for 24 days. After discharge, he attended a Community Rehabilitation Program, which ceased in February 1997. A recommendation of his general practitioner and the Kingston Centre was that he continue on with speech therapy. The speech therapy ceased on 8 October 1997. Resulting from the stroke, the patient has behavioural difficulties which are now managed by the Psycho Geriatric Assessment Team in Dandenong Psychiatric Services Unit. He also attends the Day Activity Program at Dandenong Community Health Centre.

CHART 8G
FUNDING SOURCES DURING AN EPISODE OF CARE
(CASE STUDY 1)

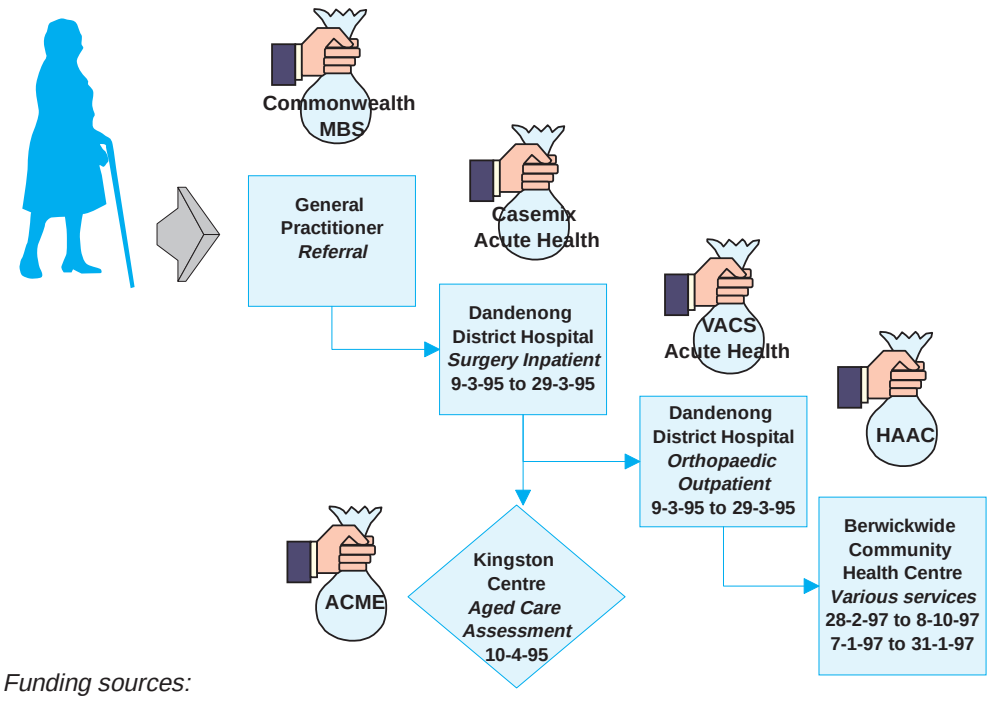


Funding sources:
ACME - Aged, Community, Mental Health Extended Care.
HAAC - Home and Community Care.
PGAT - Psycho Geriatric Assessment Team

Case study 2

8.122 As a result of a referral by a local general practitioner, an elderly patient was admitted to Dandenong District Hospital for a hip replacement in March 1995. The hip replacement was unsuccessful. Since there was no record found of her attending a rehabilitation centre, she was assessed by the geriatric team at Kingston Rehabilitation Centre in April 1995. She continued to be a monthly outpatient at Dandenong Orthopaedic Clinic until 8 October 1997. Since then she has been attending the Berwickwide Community Health Centre where further referrals for other services, such as physiotherapy, occupational therapy and dietetics, have been made in liaison with the general practitioner.

CHART 8H
FUNDING SOURCES DURING AN EPISODE OF CARE
(CASE STUDY 2)



Funding sources:
MBS - Medical Benefits Scheme.
ACME - Aged, Community, Mental Health Extended Care.
HAAC - Home and Community Care.
VACS - Victorian Ambulatory Classification System.

8.123 One of the fundamental pre-requisites for funding whole episodes of care is the establishment of a common unique patient identifier that will permit funders to track patients across the health system. The unique patient identifier will permit funding to be directed to a range of health care providers and allow each provider access to a patient's whole medical record. The Acute Health Division of the Department has commenced a project that should be linked to Commonwealth initiatives in this area. Due to the lack of a common unique patient identifier, the extent of across-program care is difficult to determine, i.e. patients who have entered acute, aged care and community health programs during their illness.

8.124 Another fundamental issue that needs to be resolved is the number of separate funding systems within the Department's Head Office. The degree of funds separation may reflect the different nature of the services funded and the fact that a patient's episode of care may reside within a single functional category, e.g. acute care. It may also reflect an artificial separation. As stated previously, the establishment of a unique patient identifier will assist in identifying the proportion of patients receiving separate departmental funding for various phases of their illness, despite these phases constituting the same episode of care.

8.125 The Department should review its funding arrangements across divisions with the aim of re-structuring funding processes where there is potential for the integration of health care services and the funding of whole episodes of care.

MAJOR CHANGES DUE TO PAST MODIFICATIONS TO THE FORMULA

Overall audit comment

8.126 Various mechanisms have been applied by the Department to review its funding arrangements. Hospitals advised that in some cases past modifications to the casemix formula resulted in certain major changes to hospital business patterns.

Views of the Department and hospitals

Has the Department evaluated the structural and organisational changes that have occurred in networks and public hospitals following the introduction of casemix funding and the Government's overall micro-economic reforms?

8.127 According to the Department, "it undertakes a rigorous annual review of the funding arrangements through the review of cost weights, through a review of budget outcomes and through public forums with hospitals and departmental regional staff in November and February each year. Where necessary, refinements to the funding arrangements are made.

"The first casemix policy was issued to the industry as a draft in March 1993 with a formal period of sector response and consultation.

"External reviews have included the independent assessment of casemix payment in Victoria, undertaken by Health Solutions Pty Ltd and the Review by the Steering Committee for the Review of Commonwealth/State Service Provision".

The particular aspects of reform that the Department of Human Services is most and least satisfied with are detailed hereunder.

Most satisfied

- "It is a transparent, logical funding system, reducing special pleading and inconsistent budget demands. There has been a shift in provider behaviour to recognise the need to measure, demonstrate and argue the case ahead of time, not just react;
- "For the first time there were explicit incentives for hospitals to improve efficiency, in contrast to the previous funding system, which focused on inputs and processes of service delivery;
- "It enables the same price to be paid for the same output - fundamental in an equitable funding system;
- "Development and implementation of the most advanced classification system in Australia, with specific refinements for medical technology and case complexity;
- "Introduction of a unique pricing system which incorporates a strong base level of throughput and introduces greater contestability through the use of a tender pool;
- "Focus on the enhancement programs, reflecting and emphasising the qualitative dimension of patient access and treatment;
- "At its introduction, casemix funding provided the most equitable way of targeting overall funding reductions; and
- "Implementation was carried out while ensuring relative stability of service to patients, viability of providers and continued access."

Least satisfied

- The Department considers that, "the biggest problem with casemix is its very success. It is focused on by the Department of Treasury and Finance, other areas of government and external parties as if it were the only component of the health system and as if it were the entire health policy which it is not. This leads to an excess focus on target allocations as opposed to the whole acute policy and funding parameters;
- "The other problem stems from misunderstanding, sometimes mischievously promoted, that networks and hospitals must live within a set price for each and every patient. Funding is actually the average industry cost across any given patient group. As well, there are other sources of funds such as training and development which also support costs of care; and
- "Within inpatient casemix, Same Day separations remain an area requiring refinement. The continuing increase in Same Day admissions, resulting in capping by the Department, suggest that incentives are not fully balanced for this patient group, as against others. On the other hand, it is policy desirable if Same Day is substituting for long stay care. This will be carefully reviewed in 1997-98".

Which, if any, past modifications to the casemix formula have resulted in major changes to the hospital's normal business patterns?

8.128 Changes to normal business patterns identified by some hospitals included:

- improvements to minor surgical procedures resulting from the reduction in cost weights;
- limits imposed on hospital admissions resulting from the capping of targets;
- improved costing systems and resource allocation; and
- a more business-like approach to service industry.

8.129 One large metropolitan hospital expressed the view that, as it is no longer funded for achieving above targets, this has led to ward and service closures.

ACCURACY OF COST WEIGHTS

Overall audit comment

8.130 Opinions varied between networks and hospitals regarding whether the casemix costings reflected what it actually costs to render a service. However, cost weights are designed to reflect the relative average costs rather than actual costs of providing hospital services. On the assumption that there is some validity to the views expressed by one network and 53 per cent of hospitals which assert that the casemix funding formula is usually wrong, this is a matter that should continue to be pursued by the Department's Clinical Sub-committee when reviewing cost weights and an issue that should be pursued by the Department during its regional consultative process.

8.131 Although three-quarters of hospitals advised that they do not have a clinical costing system, most of these are the smaller rural hospitals whose operation would not justify such expenditure. Three networks indicated that hospitals in their network that do not have adequate clinical costing systems pose various difficulties to the operations of the network. Twenty-nine hospitals claimed that the absence of a clinical costing system impacts on the management of acute health services. Various initiatives have been implemented by the Department including increased funding to improve systems. Hospitals identified a number of areas where improvements need to be made to the development of clinical costing systems such as improved feeder systems.

8.132 A number of submissions to audit, which are included in this Part of the Report, provide examples of allegedly inadequate cost weights, e.g. obstetric services.

8.133 Audit also provides comment on various issues relating to:

- the introduction of suitable costing systems that would enable smaller hospitals to be represented in cost weight studies;
- the outcome of the 1996-97 cost weight study which disclosed that there were 81 (12 per cent) patient group classifications that contained some degree of unreliability;
- the need for improved feeder systems, particularly relating to tracking prosthesis costs to the patient level; and
- unexplained large fluctuations from year to year in cost weights for those patient groups with the highest level of throughput which calls into question the accuracy of certain cost weights employed in funding hospital services since the commencement of casemix.

Views of networks and hospitals

Please indicate whether you agree or disagree with the following statement as it applies to Victoria:	*Agree*	*Disagree*	*Other (a)*
"The problem is that the casemix funding formula is usually wrong. While accurate costing was promised by casemix, this has not been delivered. I do not believe any of the casemix costings I have used [in South Australia] in any way reflect what it actually costs to render a service." (*Professor Guy Maddern, Director and Professor of Surgery, The Queen Elizabeth Hospital, Adelaide,* "Casemix: a surgeon's view", *Australian Casemix Bulletin, December 1996.)*			
Networks	1 (17%)	4 (67%)	1 (16%)
Metropolitan hospitals	6 (46%)	5 (38%)	2 (16%)
Rural hospitals	26 (56%)	11 (23%)	10 (21%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Industry submissions

8.134 Extracts of submissions received by audit from industry groups in relation to accuracy of cost weights follow:

- Obstetric services are undervalued which can be seen by comparing the cost weights of 5 normal vaginal births [cost weight = 0.7496] with one hip replacement [cost weight = 3.6572] operation, or 3 vaginal deliveries with severe complicating diagnosis [cost weight = 0.9132] with a hip replacement operation.
- Differences in style of medical remuneration which effectively discriminate against those hospitals which paid their visiting medical staff on a fee-for-service basis, necessarily impact on the cost of service delivery and therefore, the ability of those hospitals to provide a full range of services. These difficulties are still not fully resolved even after a major review into the remuneration of these staff through the Lochtenberg Review, which recommended the abandonment of straight fee-for-service and sessional arrangements in favour of a "blended" option and also recommended giving visiting medical officers access to salary packaging.

Extent of clinical costing systems

Views of the Department, networks and hospitals

Is the Department concerned that most hospitals do not have a clinical costing system in place?	
	Yes
	No ✓

8.135 According to the Department "major hospitals operate clinical costing systems, however, both the industry and Department have set up mechanisms and provided some funding to improve systems, particularly feeder systems, and to bring more consistency to cost allocations. Alternatives to detailed clinical costing systems are more appropriate for smaller hospitals".

Does the Department believe that public hospitals are adequately informed of their comparative financial performance in the delivery of acute care?	Yes ✓ No

Has the Department implemented any of the recommendations contained in the 1995 Cost Weights Study, Final report, in relation to improving the accuracy of public hospital costing systems?	Yes ✓ No

In your opinion does the investment in clinical costing systems for hospitals represent value for money?

	Yes	*No*
Department of Human Services	✓	
Networks	5 (83%)	1 (17%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.136 One network advised that the investment in clinical costing system for hospitals in their network did not represent value for money on the basis that the investment was insufficient as yet, but would add greater value when sufficient investment was made.

In your opinion are clinical costing systems useful?

	Yes	*No*
Department of Human Services	✓	
Networks	6 (100%)	

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Do those hospitals that do not have an adequate clinical costing system have an impact on the network?

	Yes	*No*	*DK*
Networks	3 (50%)	1 (17%)	2 (33%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.137 Various impacts described by networks to audit are as follows:

- more difficulty in understanding costs and achieving budget targets;
- reduced ability to identify opportunities for savings within programs;
- decreased ability to readily benchmark specific services; and
- difficulty in developing a network capability profile.

	Yes	*No*	*Other (a)*
Does your hospital have a clinical costing system? -			
Metropolitan hospitals	6 (46%)	7 (54%)	
Rural hospitals	8 (17%)	39 (83%)	
Does your hospital participate in the Department's cost weights studies? -			
Metropolitan hospitals	9 (69%)	4 (31%)	
Rural hospitals	8 (17%)	37 (79%)	2 (4%)
Is your hospital adequately resourced to analyse and evaluate casemix data to ascertain your hospital's comparative financial performance in the delivery of acute care services? -			
Metropolitan hospitals	6 (46%)	7 (54%)	
Rural hospitals	12 (26%)	34 (72%)	1 (2%)
Does the absence of a clinical costing system have an impact on the management of acute health services? -			
Metropolitan hospitals	8 (62%)	3 (23%)	2 (15%)
Rural hospitals	21 (45%)	20 (43%)	6 (12%)

(a) "Other" refers to "No response" or "Do not know"
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.138 Six (46 per cent) metropolitan hospitals compared with 40 (85 per cent) rural hospitals do not have a clinical costing system. Hospitals disclosed the following consequences resulting from the lack of such systems:

- difficulty in understanding variations in demand and impact on performance until well after the event;
- management decisions are more subjective than desirable; and
- analysis of clinical units and divisional financial performance is limited as accurate costs are not readily available.

8.139 Seven rural hospitals, however, stated that clinical costing systems for small rural health services are inappropriate as the systems they employ are adequate in such a low volume situation and that outputs compared with budget provide a reasonable indicator without resorting to complex clinical indicators.

8.140 Two metropolitan hospitals and 2 rural hospitals claim that they are in the process of implementing a new costing system.

8.141 In addition, the survey revealed that of the hospitals utilising a clinical costing system:

- only half considered the system to be effective in identifying the relative efficiencies in clinical practices;
- one-third were of the view that only a low level of reliance can be placed on the accuracy of the costs captured by their particular system;
- the majority claimed that their hospital needed to have better "feeder groups" (i.e. clinical and related support areas that contribute Diagnosis Related Group-related cost information) for their clinical costing system; and
- while the majority of respondents regarded clinical costing systems to be useful, almost half the hospitals did not feel that the investment in the clinical costing system for their hospital represented value for money.

8.142 Two large metropolitan hospitals do not believe that the investment in a clinical costing system represent value for money because data from the system is difficult to extract and manipulate, consequently the system is not fully understood and not well used.

8.143 On the other hand, 4 hospitals that do not consider the investment in a clinical costing system represents value for money are of the opinion that the hospitals are too small, with low volume of acute admissions and levels of activity, to justify complex stand-alone information technology systems.

Where do improvements need to be made in the development of the hospital's clinical costing system?

8.144 Specific areas where it was suggested that improvements need to be made to the development of clinical costing systems are as follows:

- feeder systems in relation to pharmacy costs;
- hospital wards;
- theatre utilisation and time; and
- staff time allocations.

8.145 In addition, several hospitals highlighted the following issues concerning to the development of clinical costing systems:

- as the system has only been recently introduced, sophistication will improve with time and user skill;
- there is a need for better understanding of the relationship between costs and services;
- the hospital is too small to justify complex stand-alone information technology systems;
- there is a need to develop a user group to enable inter-hospital comparisons; and
- simpler systems needs to be developed.

8.146 Some hospitals were also of the view that:

- greater priority is required to enable accurate clinical costing;
- the system is only useful if feeder systems are accurate; and
- although clinical costing systems are critical, it is very expensive to implement and maintain.

8.147 Twenty-four rural hospitals and one large metropolitan hospital indicated that hospital size is a factor in reference to clinical costing systems and considered that such systems were not cost-effective for smaller agencies.

Representation of hospitals in cost weight studies

8.148 Cost weights reflect the relative rather than actual costs of hospital resources in treating patients for various medical conditions. Patients in those groups assigned a high cost weight are expected, on average, to require more costly care than those assigned a low cost weight. Cost weights along with the length of stay and the overall total unit rate are critical factors in the determination of a hospital's level of acute health funding to meet the cost of funding services. A cost weight for a particular patient group that does not accurately reflect the relative cost compared with other patient groups places that hospital at a significant financial disadvantage to other hospitals. In this instance, this will have the effect of the casemix payment not equating to the actual cost of delivering that service.

8.149 Cost weight studies are carried out each year using patient cost data from a sample of Victorian public hospitals. The Department aims to include all hospitals with reliable clinical costing systems in the studies. These hospitals participate in these studies on a voluntary basis. The yearly studies ensure that any changes in costs, such as new technology, changes in clinical practice or other aspects of hospital service provision are incorporated in the cost weights used in the casemix formula.

8.150 In order to continue to improve clinical costing, the Department:

- Provided support of $50 000 to its Clinical Costing Standard Group in May 1997;
- Made available $100 000 to networks and $70 000 to the Geelong Hospital to promote further development of activity costing systems; and
- Established the Industry Activity Costing Committee in October 1997. This group will act as the executive forum for the development of activity costing in the industry, and will operate within the structure of the Clinical Costing Standards Association of Australia.

8.151 Table 8I lists the hospitals that have been selected to contribute data to the cost weight study since 1993-94. As can be seen, the number of hospitals contributing to the cost weight study has substantially increased from 1993-94 and has remained relatively stable since that time.

TABLE 8I
HOSPITALS TAKING PART IN COST WEIGHT STUDY,
1993-94 TO 1996-97

1993-94	*1994-95*	*1995-96*	*1996-97*
1. Box Hill Hospital	1. Box Hill Hospital	1. Box Hill Hospital	1. Box Hill Hospital
2. Monash Medical Centre	2. Monash Medical Centre	2. Monash Medical Centre	2. Monash Medical Centre
3. Mornington Peninsula	3. Mornington Peninsula	3. Mornington Peninsula	3. Mornington Peninsula
4. Royal Women's Hospital	4. Royal Women's Hospital	4. Royal Women's Hospital	4. Royal Women's Hospital
5. St Vincent's Hospital	5. St Vincent's Hospital		
	6. Mercy Hospital for Women	5. Mercy Hospital for Women	5. Mercy Hospital for Women
	7. Alfred Hospital	6. Alfred Hospital	6. Alfred Hospital
	8. Dandenong Hospital	7. Dandenong Hospital	7. Dandenong Hospital
	9. Geelong Hospital	8. Geelong Hospital	8. Geelong Hospital
	10. Western Hospital	9. Western Hospital	9. Western Hospital
	11. Royal Children's Hospital	10. Royal Children's Hospital	10. Royal Children's Hospital
	12. Peter MacCallum Cancer Institute	11. Peter MacCallum Cancer Institute	11. Peter MacCallum Cancer Institute
	13. Preston and Northcote Community Hospital	12. Preston and Northcote Community Hospital	
	14. Austin and Repatriation Medical Centre	13. Austin and Repatriation Medical Centre	
	15. Ballarat Base Hospital		
		14. Royal Melbourne Hospital	12. Royal Melbourne Hospital
		15. Royal Victorian Eye and Ear Hospital	13. Royal Victorian Eye and Ear Hospital
		16. Fairfield Hospital	

Source: Victorian Acute Health Cost Weights Studies, 1993-94 to 1996-97.

8.152 For 1993-94, the first year of casemix funding, cost weights were determined following a study of patient-level costs by Health Solutions Pty Ltd at 5 Victorian public hospitals, representing 10 per cent (67 470 separations in the 6 month period from 1 July 1992 to 31 December 1992) of the State's throughput. This was increased to 15 hospitals in 1994-95 and 16 hospitals in 1995-96, representing approximately 50 per cent of the State's throughput. In the most recent study in 1996-97, the number of hospitals providing patient level cost data was reduced to 13 hospitals, representing 48 per cent of the State's throughput. In the 1996-97 study, there were no new hospitals with patient cost data available over those which had contributed data to the 1995-96 study.

8.153 Three hospitals which provided data to the 1995-96 study did not contribute due to various reasons:

- Fairfield Hospital ceased to be a treatment facility;
- Preston and Northcote Community Hospital could no longer supply data from its costing system; and
- Austin and Repatriation Medical Centre did not provide the data by the due date.

8.154 The 1996-97 cost weight study indicated that several other hospitals intend to contribute data for future cost weight studies. Maroondah, Bendigo, Wangaratta and La Trobe Regional Hospitals have all acquired patient costing systems. Patient level costing systems are impractical for all but large hospitals because of the resources required in maintaining such systems.

8.155 Audit examination of the tender brief for the 1997-98 cost weight study highlighted that the consultant was required to obtain patient cost data from at least 18 hospitals made up of at least 15 Group A hospitals and 3 Group B hospitals. In the 4 cost weight studies since 1993, patient cost data has been supplied only by Group A hospitals with the exception of 1994-95 when Ballarat Health Services contributed data. The result of the 1997-98 cost weight study was not available at the time of the audit.

8.156 In audit opinion, the lack of representation of smaller hospitals in the cost weight studies may not reflect the costs of operating those categories of hospitals which have different infrastructure and resourcing requirements.

8.157 The Department should consider altering its policy to encourage small hospitals to adopt one of the less expensive proprietary cost modelling software systems that is currently available. As a longer-term strategy, the Department in partnership with networks and hospitals could adopt a role of attempting to generate the interest of the software development market in developing products that meet the hospitals' and the Department's needs.

Data reliability

8.158 The accuracy of the cost data underpins the validity of cost weights which reflects on the integrity and credibility of the funding system for public hospitals in Victoria. Health Solutions Pty Ltd, in carrying out a number of checks to assess data reliability, identified a number of areas as possibly lacking reliability such as patient groups with small sample sizes and patient groups where only a few hospitals contribute data.

8.159 The audit revealed that since the inception of casemix in 1993 the calculation of cost weights has become more reliable. In 1993-94, only 73 per cent of data had no qualification, however, this has increased to 88 per cent in 1996-97. The increase in the number of hospitals from 5 in 1993-94 to 13 in 1996-97 has resulted in more reliable weights on every criterion used for assessment. According to the Department the sophisticated costing system employed and the high population sample mean that there can be a very high degree of confidence in the weights used. Nevertheless, in the most recent cost study in 1996-97 there were still 81 (12 per cent) patient groups that, according to Health Solutions Pty Ltd, contained some degree of unreliability.

8.160 Issues requiring attention include:

- the need for more accurate identification of prosthesis costs (i.e. costs associated with artificial aids); and
- further development feeder systems in some hospitals.

Hospital feeder systems

8.161 *Feeder systems* refer to the collection of costs at a department and ward level that are then fed into computerised costing systems. As most ward data is collected and recorded manually prior to its entry into the computerised system, this leads to greater inefficiency and increases the potential for error. Although hospitals are continuously improving their costing methodologies and information systems and clinical costing has progressed considerably, there are still many costs for hospitals participating in the cost weight study which cannot be linked accurately to individual separations. These costs are arbitrarily distributed by various allocative mechanisms (e.g. bed days), resulting in a distortion of cost distribution and consequently inaccurate cost weights. A more accurate method of allocating nursing costs relating to patient care is through measuring the amount of nursing time devoted to the patient, i.e. accounting for nursing dependency.

8.162 Annual cost weight studies over the last 4 years have witnessed an increase in hospitals' experience with costing systems and their applications. Table 8F indicates the best observed methodologies over the past 2 cost weight studies:

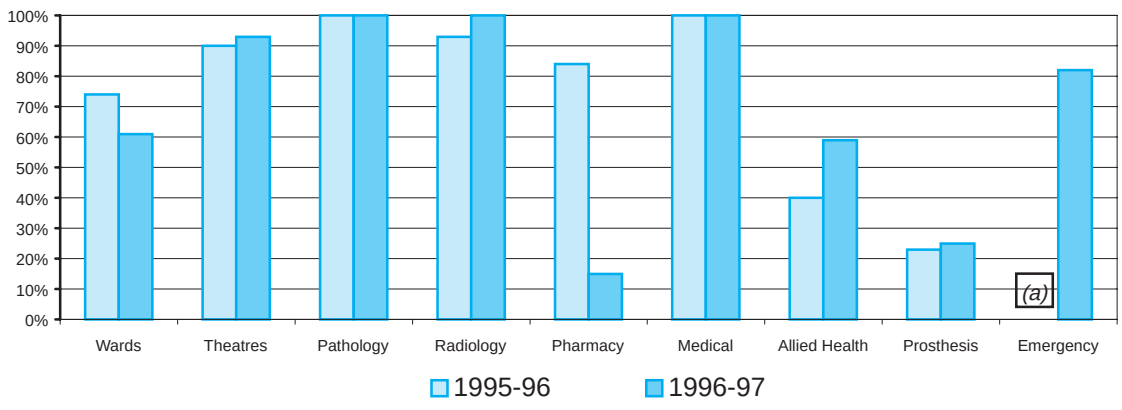
TABLE 8F
BEST OBSERVED METHODOLOGY

Department	*1995-96*	*1996-97*
Wards	A ward specific, preferably dependency system was used.	A ward specific nursing dependency system was used.
Theatres	Times and procedures were tracked to patients.	No change.
Pathology	Tests were approximately costed and tracked to patients.	No change.
Radiology	Examinations were approximately costed and tracked to patients.	No change.
Pharmacy	Some tracking of drugs to patients.	> 85% of drug costs tracked to patients including imprest.
Medical	Costs spread by unit to relevant patients.	No change.
Allied health	Products defined and tracked to patients.	No change.
Prothesis costs	Prosthesis costs were separable from other theatre consumable	Most prostheses tracked to patients.
Emergency department	Variable tracking and transfer of admitted patient costs.	Patient level assignment of costs, incorporated, where relevant, into inpatient file.

Source: Victorian Acute Health Cost Weights Study 1996-97.

8.163 Chart 8J outlines the percentage of patients costed using the best observed methodologies.

CHART 8J
PERCENTAGE OF PATIENTS COSTED USING THE BEST OBSERVED METHODOLOGIES



(a) 1996-97 was the first year emergency departments' actual costs were assigned to the cost of treating patients.
Source: Victorian Acute Health Cost Weights Study 1996-97.

8.164 Over the past 2 years there has been a small improvement in operating theatre records and in radiology information. Full compliance in areas of radiology and pathology reflect the presence of well established information systems in these departments. The biggest change was pharmacy due to the redefinition of what was considered to be best observed methodology. In this regard, hospitals were not considered to be using best observed methodologies if they used a large volume of drugs which was not tracked to patients.

8.165 The continued development and improvement of hospitals' patient activity costing systems is necessary in order to provide more accurate cost data and further refine hospital funding policy. This further development is critical from the hospitals' view to allow management to monitor the costs and utilisation of clinical services provided. It is pleasing to note that the Department has provided additional funds to the networks to promote further development of activity costing systems and has also facilitated the establishment of the Industry Activity Costing Committee to provide advice on the development of such systems.

Prosthesis costs

8.166 Prostheses are artificial devices that are attached to the body as an aid, e.g. artificial limbs and implanted pace-makers. Hospitals maintain that prosthesis costs are under-funded because they are averaged or spread over a range of surgical inpatients, thereby deflating the cost weight of a narrow range of patient groups. Historically, hospitals have found it difficult to supply prosthetic costs data at a patient level to enable the accurate calculation of the group's cost.

8.167 To overcome data capture problems, prosthetic costs are in the process of modelling using data from hospitals in the cost weight study with accurate feeder systems, together with reference to the National Operating Room Service Weights Study, undertaken in 1994. There are approximately 40 (6 per cent) patient groups with theatre conditional prosthetic costs greater than $500.

8.168 In audit opinion, there is still a need to introduce feeder systems for prostheses at a greater number of sites to enhance the allocation of these costs to patients. The 1996-97, cost weights study recommended that a further 6 metropolitan hospitals acquire and implement accurate feeder systems for prostheses to improve data quality. Most of the data is already available, however, costs needs to be tracked to the patients receiving the prosthesis. The implementation of feeder systems in the area of prosthesis usage is low compared with other hospital feeder systems.

8.169 If more hospitals do not implement feeder systems for prostheses, the Department should consider carrying out a specific study on the allocation of prosthesis costs by hospitals directed to record prosthesis costs over a 3 month period. This data should then be used to determine prosthesis costs for future cost weight studies.

Fluctuation in cost weights

8.170 Audit examination of the cost weights in the 21 groups exhibiting the highest growth in throughput indicated that there were major fluctuations from year-to-year as highlighted in Table 8K. Discussions with the Department indicated that several of the changes were due to technological changes and adjustments for prosthetic costs. However, in audit's view the extent of some of the changes in cost weights leaves open to question the accuracy of certain cost weights employed in funding hospital services since casemix commenced.

TABLE 8K
CHANGE IN COST WEIGHTS
IN GROUPS WITH THE HIGHEST GROWTH IN THROUGHPUT

AN-DRG (patient group)	*1993-94*	*1994-95*	*% change to previous year*	*1995-96*	*% change to previous year*	*1996-97*	*% change to previous year*	*% change 1993-94 to 1996-97*
3	15.5196	15.9977	3.08	17.4264	8.93	19.1730	10.02	24
31	2.0749	2.6241	26.47	1.7790	-32.21	1.6620	-6.58	-20
34	2.0749	2.6827	29.29	0.6809	-74.62	0.7810	14.70	-62
176	1.1143	1.3399	20.25	1.0290	-23.20	1.0100	-1.85	-9
178	1.5535	1.6484	6.11	2.5140	52.51	2.3930	-4.81	54
223	10.5690	7.1279	-32.56	8.7699	23.04	9.0190	2.84	-15
224	7.5562	7.7247	2.23	7.5393	-2.40	7.0180	-6.91	-7
226	6.6796	8.2310	23.23	1.9116	-76.78	2.2710	18.80	-66
232	1.8990	1.3943	-26.58	0.9543	-31.56	1.0960	14.85	-42
270	0.8339	1.0767	29.12	0.7139	-33.70	0.7280	1.98	-13
401	4.3739	3.8574	-11.81	6.3770	65.32	7.2310	13.39	65
429	1.4413	2.1440	48.75	1.4008	-34.66	1.3150	-6.13	-9
565	0.1000	0.0953	-4.70	0.3087	223.92	0.2720	-11.89	172
674	1.1913	1.1421	-4.13	0.7496	-34.37	0.6970	-7.02	-41
675	1.0366	0.9500	-8.35	0.9093	-4.28	0.8700	-4.32	-16
678	0.5171	0.5971	15.47	0.4367	-26.86	0.4760	9.00	-8
707	12.8966	13.9314	8.02	21.6493	55.40	19.3610	-10.57	50
721	6.5294	7.7340	18.45	4.8954	-36.70	9.0200	84.25	38
780	0.1850	0.2656	43.57	0.2104	-20.78	0.1940	-7.79	5
870	16.6367	24.5079	47.31	18.0984	-26.15	20.8200	15.04	25
934	0.2567	0.3099	20.72	0.1951	-37.04	0.2450	25.58	-5

8.171 In addition to the fluctuations identified by audit, Health Solutions Pty Ltd identified 21 patient groups in the 1996-97 Cost Weight Study where there was no obvious explanation for the variability in cost weights except that many had been previously identified by clinicians on the Australian Clinical Casemix Committee and its subcommittee as inadequate. Table 8L outlines the patient groups which reflect an inconsistent trend in costs between hospitals. As an illustration, variations in costs range from an increase of 53 per cent for patients belonging to the *plasmapheresis* patient group to a decrease of 35 per cent in relation to *pre-term labour* patients.

TABLE 8L
PATIENT GROUPS REFLECTING AN INCONSISTENT TREND IN COSTS BETWEEN HOSPITALS

		Number of hospitals reporting change in costs	
AN-DRG (patient groups)	*% cost change*	*Increase in cost*	*Decrease in cost*
025	+26	2	3
033	+44	3	5
035	+53	1	2
118	+20	5	3
268	+25	5	3
320	-12	3	6
345	+16	6	4
372	+36	4	4
426	+23	4	5
431	+25	3	4
433	-29	2	4
449	-24	4	6
468	-22	3	4
509	+33	4	5
541	+11	5	3
663	-15	8	2
671	-12	3	6
682	+11	5	4
684	-35	2	6
714	+27	5	4
890	+31	5	4

Source: Victorian Acute Health Cost Weights Study 1996-97.

8.172 In audit discussions with the Peter MacCallum Cancer Institute, concerns were also raised in regard to the:

- fluctuation of cost weights from year-to-year; and
- number of patient groups with inappropriate cost weights.

8.173 The Peter MacCallum Cancer Institute has advised audit that it has been underfunded in chemotherapy and radiotherapy which make up the vast majority of the Institute's separations. The Institute has a vastly different patient population, in terms of severity of illness, who need more complex and expensive therapy.

8.174 Unlike other hospitals, the Peter MacCallum Cancer Institute treats a limited range of patient groups and does not have access to patient groups that are overfunded to cross-subsidise services that incur a financial loss. In audit opinion, there is greater potential for hospitals with a narrow range of specialty patient groups to be inappropriately funded.

8.175 The Department has informed audit that it is aware of some of the concerns in regard to cost weights. The Department carries out an analysis comparing cost weights from year-to-year to highlight significant changes and it also considers arguments from hospitals where they have raised issues relating to cost weights.

8.176 In audit opinion, if there is an inadequate number of cases for ensuring statistical reliability, the Department should consider extending its use of aggregated data from the 2 previous cost weight studies to all cases where volatility in cost weights needs to be reduced. In addition, the Department should undertake more analysis to examine the reasons for the vastly different costs in between hospitals in supplying the same services within particular patient groups.

Transparency

8.177 Although the Department undergoes an exhaustive process in calculating cost weights, several networks have indicated to audit that they have concerns with the process. There is a perception by some networks that the Department manipulates the cost weights to fit the acute health budget. Audit examined this issue and found no evidence that this was occurring.

8.178 The Department informed audit that the results of the cost weight studies have been evaluated by clinical representatives from the medical specialities and the Royal Colleges in a series of consultations over many months. Approximately 60 clinical specialists have reviewed the weights. The 1996-97 cost weights were finalised after the Victorian Advisory Committee on Casemix Data Integrity reviewed the results of the clinical evaluation of the preliminary data, with access to all additional cost data and advice.

8.179 It is audit's view that an explanation incorporated within the funding and policy guidelines for adjustments between the final cost weights and those arising from the cost weights study would ensure that the process of setting cost weights is fully transparent.

The Year 2000 - the millennium issue

8.180 The issue of the capacity of systems to cope with changes of dates to the year 2000 and beyond is crucial for the health industry. Unless adequate strategies are in place, systems could cease to function or give erroneous results.

8.181 In terms of acute health, the resolution of this issue is of paramount importance to the casemix funding system itself and the maintenance of patient records and health information data bases. It is also important to recognise that, in addition to computer systems, other equipment dependent on processor chips such as medical equipment could also be potentially affected.

8.182 The Information, Information Technology and Telecommunications Strategy Group within the Department's Acute Health Division is directly coordinating the computer system response. In addition, a contractor under the control of the Strategy Group has been appointed to coordinate the network and hospital response in relation to equipment such as medical equipment, fire protection and security systems.

DATA INTEGRITY

Overall audit comment

8.183 The success and fairness of casemix funding is based on accurate reporting of diagnoses and procedures. The Department has completed 2 coding audits for the years 1993-94 and 1995-96. The audits are undertaken by independent consultants to measure the degree of accuracy of hospital coding, especially as it affects the resultant assignment of patient groups and subsequent payment to hospitals. The consultants essentially recode all chosen records to ensure that patient categorisations are correct.

Industry's response to coding audits

What action has the Department taken in response to the results of the 2 coding audits of hospital medical records?

8.184 According to the Department, its "coding auditors have produced summary audit reports and individual reports for participating hospitals. Reports contain a number of recommendations which can be categorised as either site specific or system-wide.

"In relation to site specific issues, the Department has instructed hospitals to review issues which are specific to their site and to take appropriate action to improve coding quality. Examples include reference to specific medical record design, content and format issues and instances of inappropriate coding or failure to follow National or State coding standards.

"System-wide issues are assessed by the Department's Health Data Standards and Systems Unit, and depending upon the issue, may be forwarded to the Victorian International Classification of Diseases Coding Committee and/or the National Centre for Classification in Health for appropriate action. In most instances, this will take the form of new or improved documentation. An example of a system-wide issue reported by the 1995-96 coding auditor was the confusion among coders regarding the applicability and timing of some conflicting National and State coding standards. The Health Data Standards and Systems Unit has provided information clarifying the situation through its quarterly *International Classification of Diseases Coding Newsletter*".

Based on the methodologies used, what degree of reliance can be placed on the 2 audits of hospital coding on behalf of the Department?

8.185 The Department advised that the "audit methodology has involved widespread coverage (50 hospitals including all metropolitan and a proportion of rural hospitals) with relatively small sample sizes (averaging about 0.5 per cent of total annual separations for 1995-96). The Department has confidence in the overall result for 1995-96 (average change following re-coding by auditors of 11.7 per cent), which compares favourably with the 1993-94 audit result (13.5 per cent) and those for previous Australian and overseas studies (broadly in the range 11 to 20 per cent). Overall, there was no evidence of "coding up" of patient groups. However, results for only a small number of individual hospitals have been assessed by the coding auditors as statistically significant.

"To overcome the limitations of this methodology, the Department has planned a 2 year audit cycle involving:

- Every second year, commencing in 1997-98, an audit involving about 10 hospitals with sample sizes determined, on advice from statisticians, to provide statistically significant results. A portion of the hospitals would be selected on the basis of their 1995-96 results with the remainder selected randomly; and
- Every second year, commencing in 1998-99, an audit similar to the 2 already conducted. This would ensure widespread exposure to the important educational aspects of the audit and would identify hospitals for re-audit in the following year".

What action have networks and hospitals taken in response to the results of the Department's 2 coding audits?

8.186 Responses to the coding audits by networks and hospitals include:

- A majority of networks and hospitals made the comment that improved coding practices resulted from the Department's coding audits, including changes to policy where necessary and continuous education of staff regarding standards;
- One network informed audit that it clearly under-coded and has lost revenue as a result. This particular network is also accelerating coding times to allow prompt medical input, by processing information and presenting results shortly after the original information is submitted;
- Another network advised that deficiencies identified by the audits are often the result of different judgement of the clinician or coder to that of the auditor; and
- Thirty-four hospitals reported that no action was required in response to the Department's coding audits, while 6 hospitals indicated that the audits showed satisfactory results.

Controls to minimise coding errors

Does your hospital have any systems or controls in place to minimise coding errors?

	Yes	*No*
Metropolitan hospitals	13 (100%)	
Rural hospitals	29 (62%)	18 (38%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

8.187 Among the main controls used by hospitals to reduce the risk of data error include:

- internal audit;
- use of encoder software;
- quality assurance and peer reviews; and
- education of clerical staff, nurses and clinicians.

Industry submissions

8.188 Extracts of submissions received by audit from an industry group in relation to data integrity follows:

- Payments to hospitals under casemix funding are based on the coding of medical records. This necessitated a systematic audit of medical records to ensure confidence and acceptance of the fairness of the funding. The report of the first audit covering 1993-94 was released in May 1995 and the second audit covering 1995-96 was released in late 1997; and
- The overall results of the audits have been that approximately 12 to 14 per cent of episodes have been allocated to the wrong patient group but that there is no reliable evidence of systematic up-coding and the observed errors (over and under classifications) balance out almost completely. These audits have not been able to clearly determine nor quantify the extent to which coding is inaccurate due to coder competency, imprecise coding guidelines or deliberate gaming [manipulation of data under casemix by hospitals to gain financial benefits].

Coding audit sample size

8.189 The 1995-96 coding audit included an audit of 50 hospitals (including all tertiary hospitals) and a random sample of 3 928 separations (about 0.5 per cent of all separations). Targeted audits were also conducted for 3 254 cases in 30 hospitals. These audits related to the appropriateness of the admission and assigned care type, issues relating to newborns and assignment of complications and co-morbidities.

8.190 According to a number of industry statistical analyses, the small sample size used in the coding audit casts some doubt on the level of confidence that can be placed on the results of the audit. The Department has made changes to the coding audit methodology for the 1996-97 and mechanisms are in place to implement recommendations arising from the audit.

8.191 Examination of minutes of the Victorian Advisory Committee on Casemix Data Integrity Group revealed that areas of concern to hospitals in relation to the coding audit were discussed and addressed. Interviews with departmental staff revealed that the main area of concern, namely, the inadequacy of the sample size, has been addressed by the Department. As indicated earlier in this Part of the Report, the methodology of the 1997-98 coding audit has been changed to include an audit involving approximately 10 hospitals with predetermined sample sizes to ensure statistically significant results can be provided.

8.192 In response to recommendations from the coding audit, the Department has requested each hospital to inform it of the action to be taken to rectify the problems raised. In relation to coding practice, the issue of the different uses of national and State coding standards has been addressed through information contained in coding newsletters and the planned release of relevant codes on 1 July 1998. Similarly, the National Coding Centre is to issue a list of valid treatment codes and the International Classification of Diseases Coding Committee is to list all valid codes for post-operative conditions via their newsletter. Consistent with the recommendations from the 1995-96 coding audit, the Department should introduce standardised requirements for hospitals in relation to regular reviews of medical record design and record management standards.

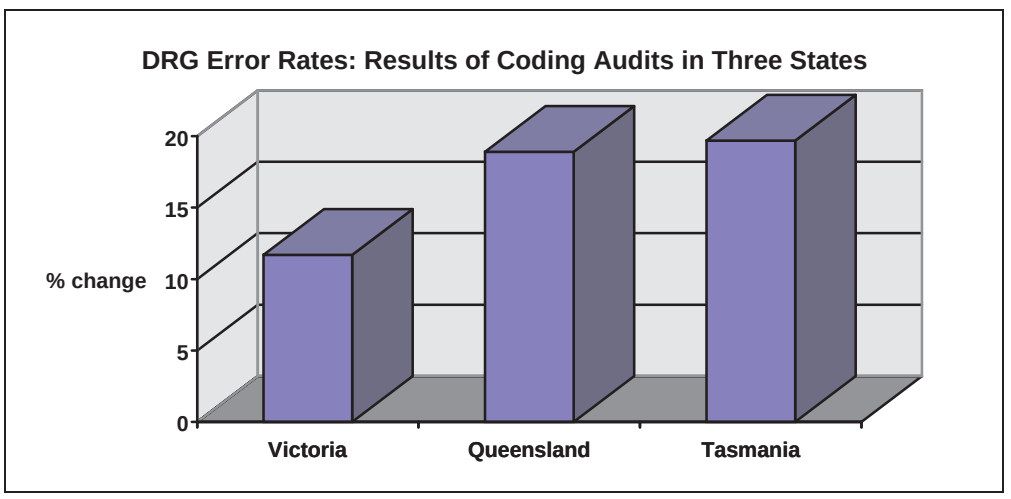
❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

The coding audit undertaken by independent consultants essentially recodes all chosen records to ensure that DRG categorisation is correct. There are strict standards and procedures for admitting patients and recording patient details that are legally binding on the State. The coding audit cannot be described as small.

The 1993-94 coding audit of 7 000 randomly selected hospital inpatient records in 63 hospitals found that in 86.4 per cent of cases, recoding did not result in a change in the assigned AN-DRG. The change in actual weight was an increase of 0.8 per cent, which is not statistically significant.

The 1995-96 coding audit of 7 000 hospital inpatient records in 50 hospitals found that in 88.3 per cent of cases, recoding did not result in a change in the assigned AN-DRG. The change in actual weight was an increase of 1.8 per cent, which is not statistically significant.

Victoria's average change of 11.7 per cent in 1995-96 compares favourably with similar studies in Queensland which shows 18.9 per cent change and 19.7 per cent change in Tasmania.



Part 9

Secondary Impacts

OVERVIEW

9.1 Based on the views conveyed to audit, the reforms introduced by the Government have, as well as increasing efficiency, had a secondary impact on the non-hospital sector and non-direct patient care activities of hospitals. Based substantially on the views of clinicians, examples of secondary impacts include the inadequacy of the standard of care and the worsening situation, regarding the availability of both community services for patients on discharge and places in nursing homes and special accommodation.

9.2 According to hospital administrators, the drive for efficiency gains has contributed to cost-shifting predominantly in the following areas:

- from hospital service providers to community-based providers;
- from hospital-funded pharmaceuticals to the Commonwealth Government's Pharmaceutical Benefits Scheme; and
- the transfer of acute inpatients to lower category hospitals for recovery after surgery.

9.3 In the opinion of a large segment of the industry, the efficiencies required to be achieved in the hospital sector may have had a negative impact on the broader health care system, e.g. the community health support sector. Various comments received from municipal councils surveyed by audit reinforced this sentiment.

9.4 Some of the above concerns are influenced by the increased demand for post-acute health services. These matters warrant serious consideration by the Department of Human Services to capitalise on the initiatives introduced to date.

9.5 These views, which were more pronounced in rural hospitals, could reflect both a higher proportion of the aged within rural communities and a greater need for nursing home and community care than acute health care.

9.6 While the majority of hospitals did not consider that the non-direct patient care activities of their hospital had been influenced by government reforms, areas where the largest number of Chief Executive Officers consider there had been a reduction as a result of the government reforms related to social welfare counselling and health promotion. The audit revealed that there was a lack of financial incentives for non-direct patient care activities such as health promotion and counselling services within the casemix formula.

9.7 Audit was advised by the Department of Human Services that substantial funds are provided for non-direct patient care such as training and development.

NON-HOSPITAL SECTOR

Is health care in a community-based setting more effective than in an acute hospital setting?

Overall audit comment

9.8 The survey results indicated that there was general agreement within the industry that patient needs and better health outcomes are more effectively met if particular health care interventions are made by community-based health care practitioners rather than in an acute hospital setting.

Views of networks and hospitals

Do you agree or disagree with the following statement: "Patient needs and better health outcomes are more effectively met if particular health care interventions are made by community based health care practitioners rather than in an acute hospital setting"?

	Agree	*Disagree*	*na*	*DK*
Networks	3 (50%)	1 (17%)	2 (33%)	
Metropolitan hospitals	5 (39%)	3 (23%)	2 (15%)	3 (23%)
Rural hospitals	31 (66%)	12 (26%)	2 (4%)	2 (4%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Changes in the level of access to non-hospital care

Overall audit comment

9.9 In terms of the extent of change in the availability of services outside the hospital environment, networks and hospitals were more positive than senior clinicians on whether community services for patients on discharge had improved. In relation to places in nursing homes and special accommodation, a higher proportion of senior clinicians felt that the position had worsened compared with those who considered the situation had either improved or not changed. On a positive note, the vast majority of the industry felt that there had been an improvement in the availability of the Department's Hospital in the Home Program.

Views of the industry

Has the availability of the following services improved, worsened or not changed -

- ***since 1 August 1995 for networks***
- ***since 1 July 1993 for all other respondents.***

	Improved	*Worsened*	*Not changed*	*Other (a)*
Community services for patients on discharge -				
Networks	3 (50%)		3 (50%)	
Metropolitan hospitals	7 (54%)	2 (15%)	3 (23%)	1 (8%)
Rural hospitals	20 (43%)	7 (15%)	17 (36%)	3 (6%)
Senior doctors	42 (16%)	78 (29%)	86 (32%)	60 (23%)
Charge nurses	72 (24%)	137 (45%)	53 (17%)	43 (14%)
Allied health professionals	29 (19%)	64 (42%)	19 (12%)	42 (27%)
Places in nursing homes and special accommodation -				
Networks		2 (33%)	2 (33%)	2 (34%)
Metropolitan hospitals	5 (38%)	4 (31%)	2 (15%)	2 (16%)
Rural hospitals	10 (21%)	6 (13%)	28 (60%)	3 (6%)
Senior doctors	11 (4%)	90 (34%)	70 (26%)	95 (36%)
Charge nurses	15 (5%)	147 (48%)	47 (15%)	96 (32%)
Allied health professionals	4 (3%)	58 (38%)	26 (17%)	66 (42%)
General practitioner supporting services -				
Networks	4 (67%)		2 (33%)	
Metropolitan hospitals	9 (70%)		2 (15%)	2 (15%)
Rural hospitals	7 (15%)	4 (9%)	34 (72%)	2 (4%)
Senior doctors	37 (14%)	26 (10%)	137 (52%)	66 (24%)
Charge nurses	64 (21%)	32 (10%)	134 (44%)	75 (25%)
Allied health professionals	10 (6%)	16 (10%)	58 (38%)	70 (46%)
Hospital in the Home Initiative -				
Networks	5 (83%)		1 (17%)	
Metropolitan hospitals	12 (92%)		1 (8%)	
Rural hospitals	14 (30%)	1 (2%)	17 (36%)	15 (32%)
Senior doctors	167 (63%)	7 (3%)	30 (11%)	62 (23%)
Charge nurses	214 (70%)	15 (5%)	26 (9%)	50 (16%)
Allied health professionals	101 (66%)	6 (4%)	7 (5%)	40 (25%)
Royal District Nursing Service -				
Networks	3 (50%)		3 (50%)	
Metropolitan hospitals	9 (70%)		2 (15%)	2 (15%)
Rural hospitals	15 (32%)	2 (4%)	22 (46%)	8 (18%)

(a) "Other" comprises either "No response" or "Don't know".

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Industry submission

9.10 A submission, received by audit from an industry group that provides a useful commentary on non-hospital care, is set out below in full.

"Casemix focuses the attention of administrators and clinicians on resource critical factors such as length of stay and encourages close attention to discharge planning. Discharge planning is most effective when a comprehensive range of post-acute care options are available to patients. Typically these include day, outpatient and domiciliary care. They may include hospital in the home, specific aids and prosthetics, oxygen, socialisation measures, continuing medical review, therapy and other tailored programs. For some patients they include palliative and hospice care and programs such as Meals-on-Wheels. By effectively reducing average length of stay quite markedly in a short time, casemix focussed attention on post-acute services in an unprecedented fashion and it has taken some time for services to develop to the degree of comprehensiveness and sophistication which might have been desirable.

"Casemix has accelerated the push for post-acute services to be provided in non-inpatient settings. "Frictional lag" in providing these services has led to a situation of stress for services such as the Royal District Nursing Service, the largest provider of home nursing services in Victoria, but as these services develop the situation will hopefully improve.

"Victoria has traditionally had a relatively strong non-hospital sector. Victoria was the first State to be completely covered by Aged Care Assessment Teams, has extensive Home and Community Care programs (mostly run by local government) and in the Royal District Nursing Service has a vigorous and highly developed home nursing service. Although coverage of post-acute services remains less comprehensive in rural areas, major non-government organisations such as the Multiple Sclerosis Society and Royal District Nursing Service, to name but 2, work constantly to improve their services.

"There are, of course, still gaps in services. However, there are many developments occurring in this regard at the individual provider level. Discharge planning remains an area of concern, but it is improving. Several networks have developed intra-network links between geriatric programs and acute programs with the specific aim of improving the management of elderly patients and these have generally been quite successful in improving patient outcomes.

"Following the commencement of pilot projects in 1994-95, additional grants have been made available to hospitals to encourage participation in the Hospital in the Home Program in addition to payment for these episodes of care under the prevailing casemix formula. In 1996-97, capped financial incentives were based on a negotiated target for Hospital in the Home patients".

Adequacy of services provided by the non-hospital sector

Overall audit comment

9.11 Hospital administrators and senior clinicians have opposing views as to the adequacy of community services for patients on discharge and places in nursing homes and special accommodation. The vast majority of hospital administrators consider the current provision of these services to be adequate. With regard to supportive services provided by general practitioners, the Hospital in the Home Program and the Royal District Nursing Service, the industry generally agreed that the services were currently adequate.

Views of the industry

Are the following services currently adequate or inadequate:

	Adequate	*Inadequate*	*DK*
Community services for patients on discharge -			
Networks	5 (83%)		1 (17%)
Metropolitan hospitals	7 (54%)	3 (23%)	3 (23%)
Rural hospitals	36 (77%)	9 (19%)	2 (4%)
Senior doctors	75 (28%)	144 (54%)	47 (18%)
Charge nurses	86 (28%)	188 (62%)	31 (10%)
Allied health professionals	27 (18%)	96 (62%)	31 (20%)
Places in nursing homes and special accommodation -			
Networks	2 (33%)	2 (33%)	2 (34%)
Metropolitan hospitals	4 (31%)	6 (46%)	3 (23%)
Rural hospitals	32 (68%)	14 (30%)	1 (2%)
Senior doctors	34 (13%)	157 (59%)	75 (28%)
Charge nurses	23 (8%)	208 (68%)	74 (24%)
Allied health professionals	14 (9%)	95 (62%)	45 (29%)
General practitioner supporting services -	5 (83%)		1 (17%)
Networks	10 (77%)	1 (8%)	2 (15%)
Metropolitan hospitals	38 (81%)	8 (17%)	1 (2%)
Rural hospitals	151 (57%)	64 (24%)	51 (19%)
Senior doctors	162 (53%)	83 (27%)	60 (20%)
Charge nurses	60 (39%)	34 (22%)	60 (39%)
Allied health professionals			
Hospital in the Home Initiative -			
Networks	6 (100%)		
Metropolitan hospitals	10 (77%)	2 (15%)	1 (8%)
Rural hospitals	14 (30%)	15 (32%)	18 (38%)
Senior doctors	134 (50%)	66 (25%)	66 (25%)
Charge nurses	183 (60%)	76 (25%)	46 (15%)
Allied health professionals	72 (47%)	41 (27%)	41 (26%)
Royal District Nursing Service -			
Networks	6 (100%)		
Metropolitan hospitals	9 (69%)		4 (31%)
Rural hospitals	33 (70%)	5 (11%)	9 (19%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Industry submission

9.12 A submission received from an industry group is presented below to provide a particular comment worthy of consideration on the above issue.

"There is considerable anecdotal evidence from individual practitioners who assert that patients have been discharged prematurely from hospital since the introduction of casemix (the so-called "quicker and sicker" phenomenon). Early discharge, of itself, may not necessarily be synonymous with lower quality of care, but there will be a negative impact on patient or family support systems unless additional home-based services are readily accessible and adequately funded. A comprehensive review is needed to verify these issues."

Monitoring the availability of community services

Overall audit comment

9.13 Audit found that in the formative years of casemix funding, the Department did not have any strategies in place to monitor and assess the availability of community services to meet the escalation in demand for post-discharge services.

9.14 Since 1995, the Department has been proactive in establishing and funding the Post-Acute Care Program to deal with the issue of post-acute care. Audit supports the thrust of the Program.

9.15 According to hospital administrators, monitoring the availability of community services by networks and hospitals to satisfy the demand for post-discharge services is now widespread.

Views of the Department, networks and hospitals

Please provide details of the Department's strategy to deal with the potential impact of casemix funding on the continuity of care following patient discharges from public hospitals?

9.16 Audit was advised that, "the Department established the Post-Acute Care Program in 1995 for the development of innovative service models for the provision of post-acute care. The Program is now undergoing significant expansion and, with a recurrent budget of $6.2 million, will effectively provide services in each of the departmental regions.

"The Program was established in recognition that there is a requirement to enhance the current provision of post-acute care and service systems as a result of international trends in reduced length of stay in hospital. The Program aims to:

- improve links between hospitals and other health and community care providers;
- establish mechanisms to readily identify patients likely to need post-acute care;
- improve care planning; and
- provide additional case-managed services for those individuals who require them".

"The Program will be subject to an independent evaluation which will inform future policy development and funding arrangements".

How does the Department monitor the availability of community services in relation to the demand for post-discharge services?

9.17 According to the Department, "hospitals have prime responsibility to implement appropriate post-discharge services. The Department supports this through funding for priority post-acute projects. Development of these projects identifies service gaps and opportunities."

Does your organisation monitor the availability of community services in relation to the demand for post-discharge services?

	Yes	*No*	*na*
Network	5 (83%)	1 (17%)	
Metropolitan hospitals	9 (69%)	3 (23%)	1 (8%)
Rural hospitals	35 (75%)	10 (21%)	2 (4%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

9.18 The various mechanisms used to monitor the availability of community services in relation to the demand for post-discharge services are listed below:

- feedback from community service providers, particularly from the network's Provider Advisory Committee;
- the work of ambulatory care or Post-Acute Care Programs of network hospitals;
- close interaction with Community Health Centres, the Royal District Nursing Service, general practitioners and local government authorities; and
- post-discharge programs.

Strengthening linkages between hospitals and community-based providers

Overall audit comment

9.19 While linkages between hospitals and community-based service providers have been strengthened to a large extent in the metropolitan area, such co-ordination is not as extensive in the rural regions. According to discussions with Chief Executive Officers of rural hospitals, there was a general shortage of community-based service providers within rural areas. However, it is audit's view that the introduction of the Healthstreams Program will commence to address this issue for the smaller rural hospitals.

Industry submission

9.20 The benefits of co-ordination with the non-hospital sector is demonstrated in a submission received by audit which is set out below.

"The Report of the General Practitioner Hospital Integration Program conducted at Monash Medical Centre in conjunction with Greater South Eastern Division of General Practice highlights the benefits of providing additional resources to improve communication and the co-ordination of care with community general practitioners and with other care providers."

Views of the Department, networks and hospitals

To what extent has your organisation strengthened linkages between public hospitals and community-based health care service providers

	Linkages strengthened	*Linkages partly strengthened*	*No change*	*Linkages weakened*
Department				
Networks - since 1 August 1995	5 (83%)	1 (17%)		
Metropolitan hospitals - since 1 July 1993	9 (69%)	4 (31%)		
Rural hospitals - since 1 July 1993	20 (43%)	17 (36%)	10 (21%)	

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Community support services to non-admitted patients

Overall audit comment

9.21 Most hospitals have developed admission policies to cover the situation of patients attending the hospital in an outpatient capacity who may require further treatment in a community-based setting. Hospitals that have not are generally evenly spread throughout the metropolitan and rural areas.

Views of hospitals

Has the hospital developed admission policies that ensure community support services are provided to non-admitted patients, when appropriate?

	Yes	*No*	*DK*
Metropolitan hospitals	9 (69%)	4 (31%)	
Rural hospitals	31 (66%)	13 (28%)	3 (6%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Changes to discharge planning procedures

Overall audit comment

9.22 Networks and hospitals outlined a range of changes that have been made to discharge planning procedures. According to interviews with the Chief Executive Officers of all networks and a number of hospitals, there was general agreement that since the introduction of casemix, a greater focus on discharge planning has improved the co-ordination of patient care in the post-hospital environment.

Views of networks and hospitals

What steps have the network undertaken to ensure that appropriate discharge practices are applied by its hospitals to provide safeguards over the care of the patient in the post-hospital environment?

9.23 Various steps have been undertaken by a number of networks to ensure that appropriate discharge practices are applied to provide safeguards over the care of the patient in the post-hospital environment. A listing of these measures follows:

- joint initiatives and working closely with other care providers;
- active links with general practitioners and community health centres;
- examination of post-discharge progress;
- involvement of clinical staff; and
- close collaboration with primary care providers.

Have discharge planning procedures for acute inpatients changed under the casemix funding and/or the micro-economic reform environment?

	Yes	*No*	*DK*
Metropolitan hospitals	10 (77%)	2 (15%)	1 (8%)
Rural hospitals	30 (64%)	14 (30%)	3 (6%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

9.24 The various ways in which changes have occurred to discharge planning procedures include the following:

- discharge planning procedures now commence upon admission;
- quicker discharge for most patients;
- the employment of a specific discharge planner to link associated services;
- pre-admission and discharge practices have been significantly reviewed to ensure that the hospital has not been adversely impacted by inappropriate admissions and patients who stay for long periods in hospital;
- review of community services available in the area; and
- information and documentation streamlined to facilitate the patients' referral process.

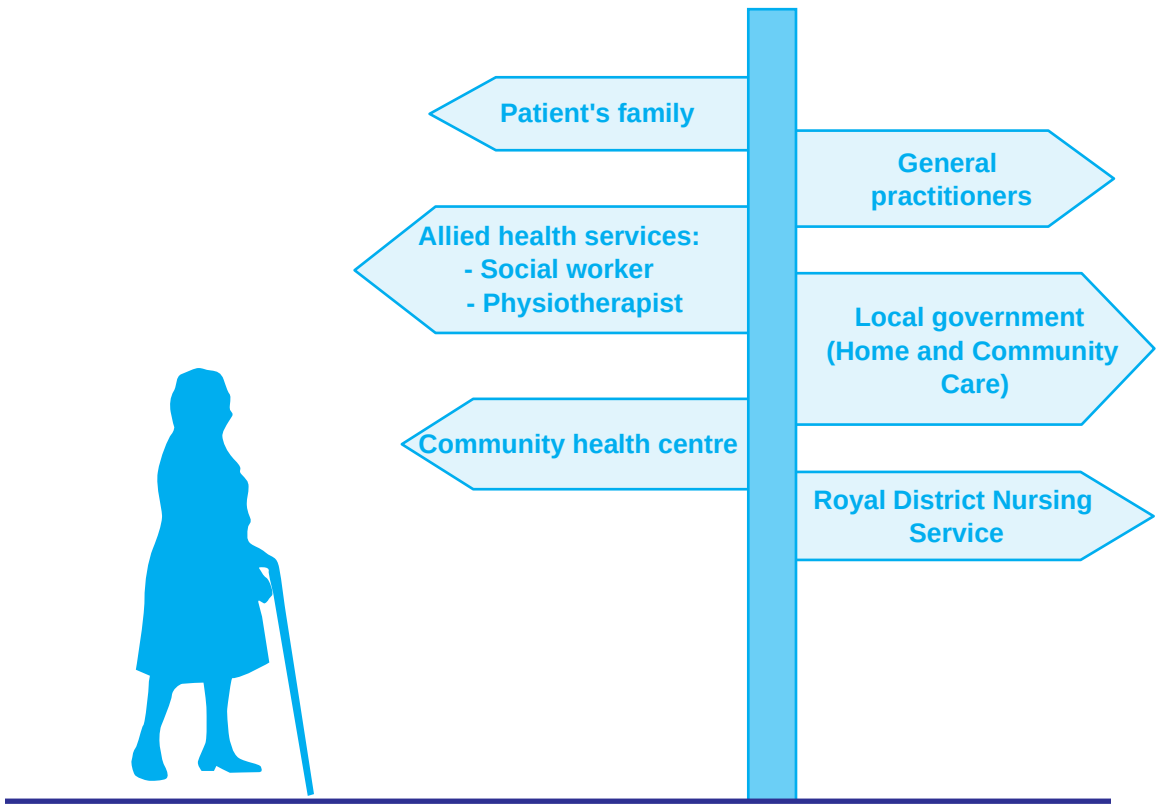
Extent of cost-shifting by hospitals

Overall audit comment

9.25 Casemix payments currently apply to the acute inpatient episode of illness resulting in additional financial incentives for hospitals to discharge inpatients to other health care settings before the costs of patient care exceed the level of funding paid by the Department. Under the current casemix payment system there are added incentives for hospitals to shift costs to other health care providers such as local government, general practitioners, nursing homes, the Royal District Nursing Service or community health care centres.

9.26 Hospital administrators claimed that the drive for efficiency gains has contributed to their hospital having to, in some cases, shift costs related to:

- community-based providers, e.g. general practitioners, day clinics and community health centres;
- tertiary referral centres, i.e. large teaching hospitals;
- Pharmaceutical Benefits Scheme-funded medication;
- lower category hospitals; and
- discharged patients.



Views of the Department, networks and hospitals

What are the Department's views in relation to quantifying the level of any cost-shifting by public hospitals?

9.27 Advice was received from the Department that, "in 1995 the Commonwealth and States jointly undertook a review of so-called "cost-shifting" as part of the review of the need for additional Commonwealth hospital funding grants to offset declining levels of private health insurance.

"This review concentrated on growth in Medical Benefits Scheme payments since 1992-93, the year before the commencement of the current Medicare Agreement. The review found that Medical Benefits Scheme growth seemed to be correlated with increases in doctor numbers and did not find any significant correlation with the introduction of casemix funding.

"The Commonwealth has alleged that pre-operative and post-operative care that was undertaken in hospital outpatient departments is now funded in the community through the Medical Benefits Scheme. The Commonwealth imposed a $25 million cost-shifting penalty and announced a new data collection to empirically establish the true level of cost-shifting.

"Since November 1996, the Commonwealth has required doctors to indicate to the Health Insurance Commission if they were providing services that would normally be related to a hospital admission. This data is then cross-matched with details about private hospital admissions, and where there is no correlation it will be assumed that this represents cost-shifting by the State.

"Despite repeated requests for access to the results of this attempt to collect solid data on cost-shifting, the Commonwealth has not made any information available to date. Anecdotal evidence is that doctors are not complying with the Commonwealth data request, and the results of this exercise may be completely unreliable.

"Analysis of the transfer patterns of casemix-funded patients leaving public hospitals shows no significant change in the transfer destination for patients since the introduction of casemix. In particular, the only possible forms of cost-shifting to non-hospital institutions would be by inappropriate admission to nursing homes and hostels or discharge to home when people require Home and Community Care services. The data shows that the numbers of these types of discharges actually decreased between 1992-93 and 1995-96".

Are there any inconsistencies between service purchasing/funding arrangements between the various Divisions in the Department that are of concern (e.g. cost-shifting between programs by hospitals)?

9.28 The Department's response was that it "funds a wide range of services at hospitals from complex inpatient procedures such as a transplant costing over $40 000 to simple outpatient consultations or a community health contact of less than $50. This range of services means that funding methods will vary between programs although all have an output focus. The ability to define outputs and to support a classification infrastructure varies between services. Similarly, while diagnosis is a good predictor of resource costs for acute health services, it is not so for mental health services, leading to different mechanisms of purchasing.

"Where similar services are purchased in hospitals by different Divisions, e.g. rehabilitation services, there is active consultation to ensure that prices are consistent.

"Cost shifting between programs within a hospital is not a major concern. Services funded from different programs are clearly identified as are the expected outputs. Each hospital or network's audited financial statements also show expenditure on a program basis. The financial position of hospitals and networks is also monitored on a whole of entity basis".

Has the drive for efficiency gains contributed to the hospital having to, in some cases, shift costs in the following areas:

	Yes	No	Other(a)
From hospital service providers to community-based providers (e.g. to general practitioners, day clinics, community health centres) -			
Networks	4 (67%)	2 (33%)	
Metropolitan hospitals	6 (46%)	5 (39%)	2 (15%)
Rural hospitals	20 (43%)	23 (49%)	4 (8%)
From casemix/variable funded hospital units to casemix/fixed grant hospital units -			
Networks	1 (17%)	4 (66%)	1 (17%)
Metropolitan hospitals	-	7 (54%)	6 (46%)
Rural hospitals	7 (15%)	30 (64%)	10 (21%)
From lower category hospitals to tertiary referral centres -			
Networks	2 (33%)	2 (33%)	2 (34%)
Metropolitan hospitals		9 (69%)	4 (31%)
Rural hospitals	4 (9%)	34 (72%)	9 (19%)
From hospital-funded pharmaceuticals to Pharmaceutical Benefits Scheme-funded medication -			
Networks	3 (50%)	2 (33%)	1 (17%)
Metropolitan hospitals	4 (31%)	5 (38%)	4 (31%)
Rural hospitals	10 (21%)	27 (58%)	10 (21%)
From outpatient to Same Day inpatient (e.g. rehabilitation) -			
Networks	1 (17%)	5 (83%)	
Metropolitan hospitals	1 (8%)	8 (62%)	4 (30%)
Rural hospitals	7 (15%)	35 (74%)	5 (11%)
Transfers of post-acute inpatients down to lower category hospitals (e.g. to small and rural hospitals) -			
Networks	4 (67%)	2 (33%)	
Metropolitan hospitals	2 (15%)	7 (54%)	4 (31%)
Rural hospitals	11 (23%)	21 (45%)	15 (32%)
From public hospitals to the Metropolitan Ambulance Service -			
Networks		6 (100%)	
Metropolitan hospitals		9 (69%)	4 (31%)
Rural hospitals	1 (2%)	31 (66%)	15 (32%)
From public hospitals to discharged patients -			
Networks	2 (33%)	3 (50%)	1 (17%)
Metropolitan hospitals	2 (15%)	8 (62%)	3 (23%)
Rural hospitals	10 (21%)	32 (68%)	5 (11%)

(a) "Other" refers to "Don't know", "Not Applicable" and "No response".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Is there a need for amendments to be made to acute care funding arrangements which will eliminate any incentives for cost-shifting?				
	Yes	*No*	*na*	*DK*
Networks	4 (67%)	1 (17%)		1 (16%)
Metropolitan hospitals	10 (77%)	1 (8%)	2 (15%)	
Rural hospitals	19 (40%)	13 (28%)	2 (4%)	13 (28%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

9.29 Suggestions made by various networks and hospitals in terms of desirable amendments that could be made to acute care funding arrangements, designed to eliminate any incentives for cost-shifting, included the need for:

- Population-based funding, i.e. funding on a per capita basis to address the health status of the community;
- Commonwealth and State Governments to define their respective responsibilities. Health funding to be administered exclusively by either the State or Commonwealth Governments, but not by both levels of government; and
- A funding system to be designed:
  - to reflect actual costs which allow for the intensity and length of care; and
  - that would fund infrastructure costs.

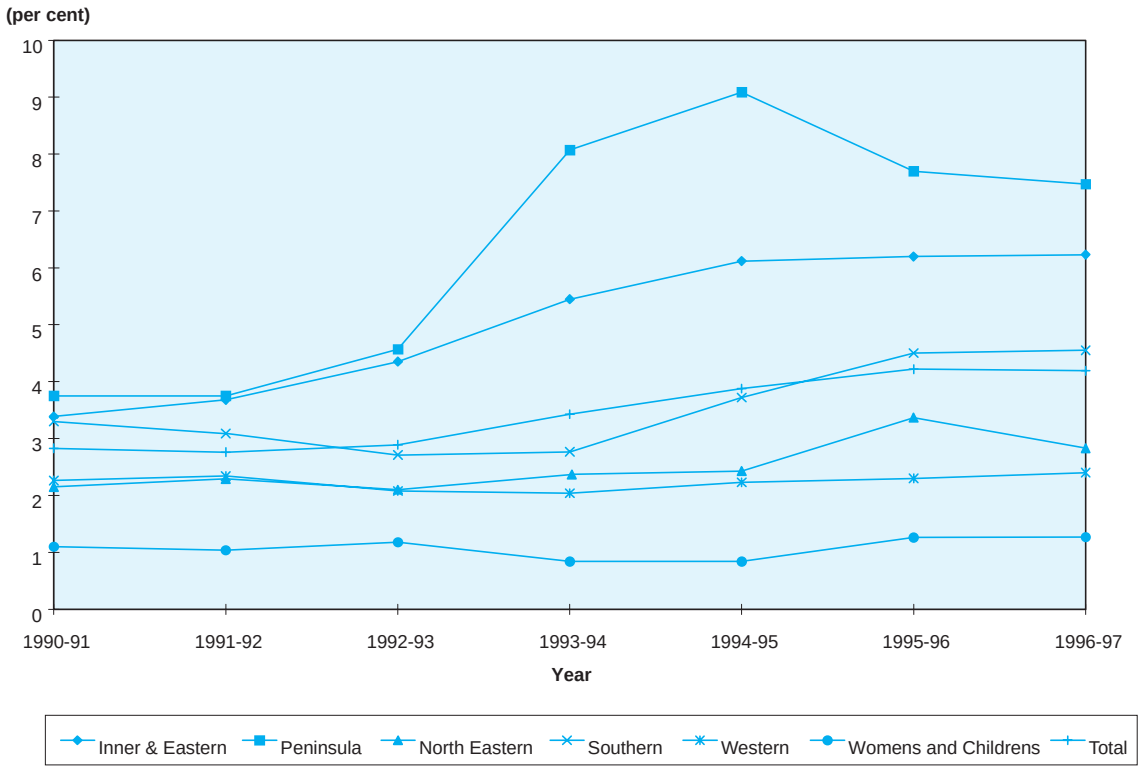
Acute inpatient transfers

9.30 The number of acute inpatient transfers between hospitals was expected to increase under casemix funding and micro-economic reforms as hospitals changed admission and discharge practices such as:

- reducing the need to admit complex or long stay patients through transfers to hospitals with higher level facilities; and
- managing bed availability to maintain high throughput volumes by transferring post-acute inpatients to less busy hospitals (e.g. for convalescence, rehabilitation or observation).

9.31 The trend in the percentage of patients transferred to other network hospitals is shown in Chart 9A.

CHART 9A
PATIENTS TRANSFERRED TO OTHER NETWORK HOSPITALS, 1990-91 TO 1996-97
(percentage)



Source: Department of Human Services, Acute Health Division

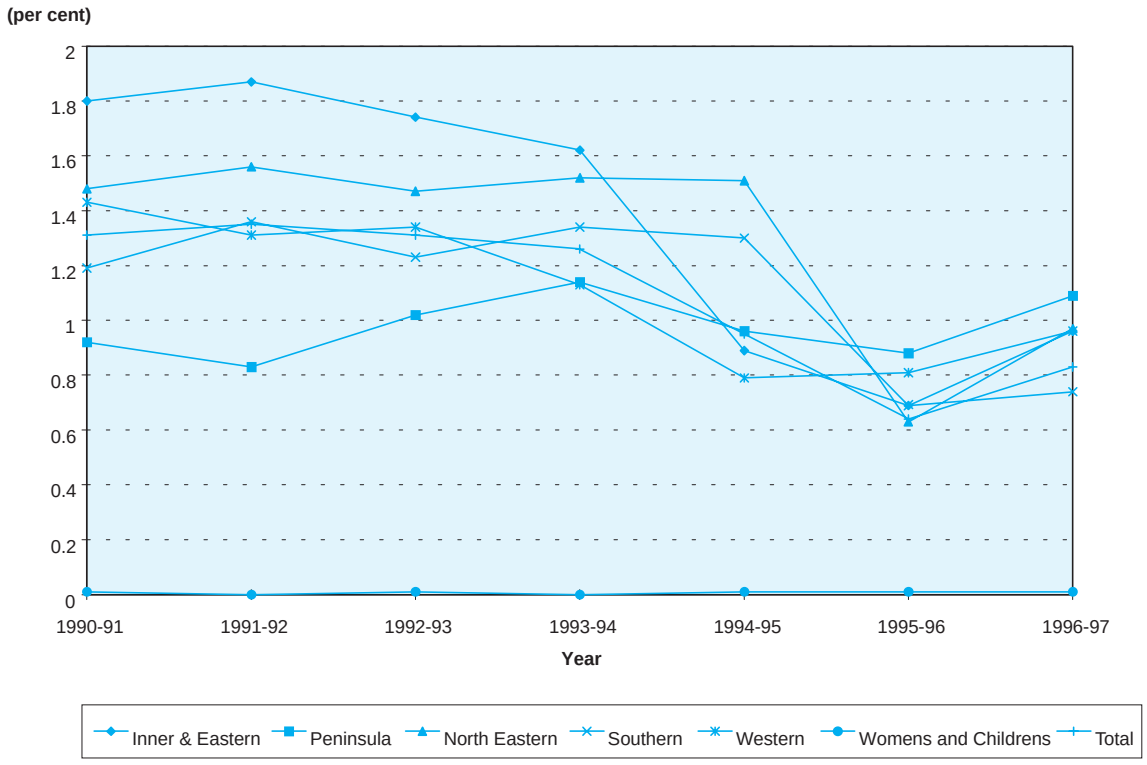
9.32 The advent of casemix funding and micro-economic reforms in 1993-94 coincided with an immediate increase in the proportion of hospital transfers in most metropolitan hospitals. The growth in acute inter-hospital transfers has steadied since 1995-96, which suggests that networks responded to the government reforms by altering bed management practices.

9.33 The Peninsula Network hospitals have the highest proportion of transfers to other acute hospitals in other networks with 9 per cent (2 600) of patients discharged as transfers to other acute hospitals in 1994-95. This occurrence is not surprising given that the Peninsula Network is comprised of 2 relatively small acute care facilities.

Trends in discharge to nursing homes

9.34 Prior to casemix funding, hospitals provided acute beds to elderly patients who did not require acute care. Although this practice mainly occurred in rural hospitals, trends in the proportion of patients discharged to nursing homes were also expected to show a decline across all hospitals after the introduction of casemix funding as hospitals reduced inappropriate admissions to their acute care facility. Chart 9B shows the trend in the proportion of patients discharged from acute hospitals to nursing homes.

CHART 9B
PATIENTS DISCHARGED TO NURSING HOMES, 1990-91 TO 1996-97
(percentage)



9.35 The above analysis shows that hospitals in the Inner and Eastern, North Eastern and Southern networks had the most marked decreases in the proportion of patients discharged to nursing homes following the introduction of casemix.

9.36 The Department should continue to:

- monitor the impact of casemix funding on the increased demand for nursing home beds and on the level of community support required; and
- liaise with the Commonwealth Department of Health and Family Services in relation to any increased demands for these services.

Impact of acute health reforms on system-wide efficiency

Overall audit comment

9.37 The views expressed by two-thirds of hospital Chief Executive Officers regarding the negative impact of efficiency gains in the hospital sector on the broader health care system were confirmed by comments received by those municipal councils and community health centres that participated in the audit survey. Only one of the 6 network Chief Executive Officers agreed that efficiencies gained in the hospital sector do not automatically translate into system-wide efficiency gains and it is possible there was a negative impact on the overall efficiency of the broader health care system.

Views of networks and hospitals

Do you agree or disagree with the following statement as it may apply to Victoria:			
	Agree	*Disagree*	*Other (a)*
"... it is important to acknowledge that technical efficiencies gained in the hospital system [in South Australia] cannot be translated into system-wide efficiency gains. It is possible, therefore, that efficiencies gained in the hospital sector may have a negative impact on the broader health care system for example, the community health support sector." *(Casemix Development Program, Commonwealth Department of Health and Family Services and the South Australian Health Commission,* An Evaluation of casemix Funding in South Australia, *1994-95, January 1997, p.105)*			
Networks	1 (17%)	1 (17%)	4 (66%)
Metropolitan hospitals	7 (54%)	3 (23%)	3 (23%)
Rural hospitals	32 (68%)	6 (13%)	9 (19%)

(a) "Other" refers to "Don't know" and "No response".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Industry submission

9.38 The following submission was received from a representative industry group.

"Early discharge postulated as a means of saving health dollars resulted in a community burden and an under-resourced community health sector. Though early discharge can be a choice for patients, it is often not presented in that way. Patients are led to understand that they will be discharged on a certain day.

"Problems with discharge planning vary with patients being sent home with prescriptions for medications (regardless of ability to access a pharmacy), 2 days supply of medications and insufficient dressings. Early discharge can be positive for some but the perceptions that there will be cost savings are unfounded. Costs are then incurred by the family or community.

"The aged are viewed as a burden under casemix funding because they often overstay the Average Length of Stay for the principal diagnosis. There is an absence of gerontologists, nurses with skills in aged care and pharmacists who can deal with issues of polypharmacy. There have been meagre funds directed at establishing better models of caring for the aged in the acute sector. Under the National Demonstration Hospitals Program, Phase 1, it was demonstrated that the aged can receive cost-effective quality care if education and training, specific clinical guidelines and management support are demonstrated.

"Those with mental health problems have been greatly affected by a decrease in acute beds. Nurses say that the effort put into preventing admission because of scarcity of beds is devastating.

"Hospital in the Home is a new theme on an old idea. District nurses have been providing home care for over 100 years. What is new is the under-resourcing. The Royal District Nursing Service .... has not seen the anticipated transfer of acute funds to them to provide the level of care now required.

"Community Health Centres which have a primary care, public health and health promotion role are undertaking acute health care without the funds. There has been a transfer of acute health care to the community without the transfer of funds. Instead of developing models which should ensure close intra-disciplinary collaboration and funding arrangements, agencies are encouraged to compete not collaborate.

"Most of all the community, through individuals, are asked to wait, to pay and to do without".

Submissions from municipal councils and community health centres or services

9.39 Every municipal council and community health centre or service as well as the Royal District Nursing Service was invited to provide submissions to audit on any impacts of the Government's acute health reforms, as they relate to hospital services or to patients discharged from hospital. Responses were received from 18 (23 per cent) municipal councils and 5 (6 per cent) community health centres or services.

9.40 The lack of any evaluative studies known to audit and reliable data concerning the indirect impact of the Government's acute health reforms on the non-hospital sector meant that audit elected to rely on the qualitative information provided by municipal councils and, to a lesser extent, community health centres or services.

9.41 The main concerns of various respondents related to the reduction in length of stays in hospitals and the need for further improvements in the management of discharge planning processes. Comments received from individual municipal councils and community health centres or services in relation to the impact of the Government's reforms on service delivery are listed below.

Positive impacts

- Recently, the Department of Human Services has sought submissions for the funding of post-acute care services in recognition of some of the issues associated with reform of the acute care sector.
- A key component of the service model developed with the Department is the employment of care co-ordinators in each hospital to undertake assessment and planning for post-acute care. The model also dedicates resources to packages of care purchased from community-based services. If these measures had been implemented in conjunction with the introduction of casemix funding, the negative impacts of implementation would have been minimised.
- When discharge plans have been undertaken comprehensively with the input of patient and family, the outcome has been favourable for everyone concerned and patient confusion and anxiety minimised.

Negative impacts

Funding and workloads

- There has been an increased demand on community-based services without an increase in resources, e.g. an extra workload on Home Help services.
- Of the older residents interviewed, 80 per cent reported that Home Care services were received on time, 7 per cent received services 2 to 5 days late, 6 per cent received services 6 to 10 days late and 7 per cent were still waiting for services after 4 weeks. Some of these delays were due to waiting lists for ancillary services such as podiatry and physiotherapy, but these delays can be seen as indicative of the decreased provision of services by hospitals through the casemix system. Where ancillary services such as physiotherapy or occupational therapy are critical to recovery from surgery, the impact on the welfare of the client can be negative indeed.
- Systems associated with Home and Community Care services are not sufficiently resourced to care for the earlier discharged patients.
- One municipal council revealed that, due to the pressures of the Government's acute health reforms and the municipality's ageing population on its limited resources, an intensive client review had been undertaken in 1996-97 of its Home Care service in order to respond to higher need clients. The outcome of this review resulted in a reduction of Home and Community Care clients from 1 800 in 1995-96 to 1 500 in 1996-97. Another council advised that it had restructured its support services to the community which involved the prioritisation of access to its Home and Community Care services. This process enabled the council to operate within its budget by removing access for 68 post-acute patients (20 per cent) to the council's Home and Community Care services. Similar arrangements in another council meant longer waiting lists and reductions in services or no service at all to people eligible for Home and Community Care services, who in the past would have benefited from accessing low levels of services that assisted well-being, prevention of further deterioration in health and physical functioning.
- Due to earlier discharges, clients require intensive levels of services which municipal councils have difficulty accommodating in all cases. This can impact on service levels provided to other clients.
- The Post-Acute Care Program purchases services for people leaving hospital after an acute episode. However, we find that services such as this also increase workloads on our services in terms of co-ordinating the actual services delivered.
- Equipment required for activities of daily living is most often required to be covered cost-wise by community health and the budget is not in place for this.
- Funding to assist clients to access services, as part of the newly created co-ordinated care trial, has not been provided.

Discharge planning

- Some patients are discharged prematurely without any formal or informal support and in some cases, essential services like occupational therapy and food services have not been accessed on the patient's behalf.

- A recent study by our community health service of 52 post-acute care clients referred to our district nurses has shown that discharge planning was inadequate in 86 per cent of cases.
- Hospital referrals are often based on limited knowledge of the client.
- Client discharge plans often do not include the services that a community team can offer the client; the knowledge of the services available for clients post-hospitalisation is lacking.
- There is a misperception of municipal council services, eligibility criteria and resource availability.
- Earlier discharge of patients has had a direct impact on the Home and Community Care Program, particularly post-acute care for younger people who are not within the Home and Community Care Program guidelines.
- Referrals were sometimes made by inappropriate hospital staff, such as ward clerks, resulting in council resources having to be used to ascertain additional information for the provision of post-acute services.
- There is a need for effective discharge planning which is initiated as close to admission as possible. We have received referrals as residents have been discharged often with unrealistic expectations of the services which could be provided and within achievable time frames.
- On some occasions, the resident has self-referred following discharge, indicating a potential lack of hospital monitoring of the discharge process.
- There is only limited hospital follow-up after discharge.
- In terms of patient surveys, results need to be closely investigated because a patient's preference to be discharged does not necessarily correlate to the medical fitness of the patient for discharge.
- Inadequate discharge planning has at times caused confusion and stress for the service users and their carers, e.g. the council was advised only a few hours before hospital discharge which provided very little time to assess critical issues relating to patient needs and service requirements.
- Transportation and communication problems have arisen. For example:
    - a family was told home support services and meals would begin the next day but the council had not been requested to put the services into operation; and
    - Home and Community Care services often receive telephone calls from hospitals with minimal notice that a patient is to be discharged.
- People have been discharged on a late Friday afternoon without adequate notice to their families and with no opportunity to organise weekend care.

The elderly

- In some cases, the elderly are placed under undue stress and hardship. One municipal council cited situations whereby elderly frail patients were sent home by taxi late at night without adequate family support, e.g. a 92-year-old client, who was a stroke victim with no family support, was sent home at midnight by taxi.
- Frail elderly patients tended to be re-admitted to hospital soon after their discharges which often worsens their ill health at an additional cost to the community. These patients were discharged when still requiring care and support beyond the scope and resources of Home and Community Care services.
- There have been concerns that elderly patients and people with chronic illnesses are being transferred to a "more appropriate cost environment" such as nursing homes. Opportunities for comprehensive assessment and successful preventative interventions are thereby decreased.

Post-natal care

- As maternal and child health nurses are required under the Health Act to contact the family within 14 days of the birth of a child, if women with babies are discharged early with an acute health problem, there can be a gap between hospital-based and community-based services.
- Women with post-natal complications, e.g. breast-feeding difficulties, sent home earlier or too early increases the workload.
- In one municipality over a 3 month period, 8 out of 25 women giving birth were discharged from hospital between 12 and 72 hours after birth. As the local Royal District Nursing Service at the Community Health Service was only funded to see Home and Community Care clients, this meant that no funded domiciliary midwifery services were available to these 8 women.

Cost shifting

- The use of individual council's resources on post-acute care outcomes represents cost-shifting from the acute sector to the community-based sector. This effectively means in the case of Home and Community Care services that the Commonwealth Government and local governments fund State services and, in the case of Maternal and Child Health services, local governments are absorbing costs.
- The reduction of outpatient services has meant increasing costs to patients for equipment hire, dressings and medications previously supplied by the hospital. There is also a significant shifting of costs to community support services identified by the lengthening of waiting lists for ancillary services.

- In the last 2 years, there has been an increasing trend in the number of requests for General Home Care (as part of the Home and Community Care Program) to provide not only house cleaning, social support and home maintenance, but also personal care for people who have been recently discharged from hospital. The proportion of general home care activity attributable to personal care has increased from 1.6 per cent to 14.7 per cent. Personal care is costed at $2 per hour more than house cleaning or social support. As the nature of requests are urgent (e.g. assistance with bathing and dressing) they are responded to ahead of requests for less urgent assistance (e.g. assistance with house cleaning). Although not strictly an aim of the Program, this type of support is unavailable in the current health care system. There are now less hours available for the type of preventative support and assistance which is the primary objective of the Program. The result of the current situation is to shift the cost from the hospital sector onto local government and the Home and Community Care Programs with the resulting reduction in available resources for the preventative role of the Home and Community Care Program.

NON-DIRECT PATIENT CARE ACTIVITIES OF HOSPITALS

Overall impact on non-direct patient care activities

Overall audit comment

9.42 The survey revealed that according to the majority of networks and hospitals, the government reforms have not had an impact on non-direct patient care activities in their hospitals. Areas where the largest numbers of hospital Chief Executive Officers considered there had been a reduction in non-direct patient care activities stemming from the government reforms related to social welfare counselling and health promotion.

9.43 The views of clinicians in relation to the adverse impact of government reforms particularly on teaching and research have been raised in Parts 4 and 11 of this Report.

9.44 Audit was advised by the Department that substantial funding is provided for non-direct patient care such as training and development.

Views of networks and hospitals

What has been the overall impact of the government reforms on the following non-direct patient care activities of hospitals?

	Total respondents			Reduced/Increased							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Reduced	Increased	Other (a)	Red	Inc	Red	Inc	Red	Inc	Red	Inc
Teaching -											
Networks		1 (17%)	5 (83%)								1
Hospitals	12 (20%)	5 (8%)	43 (72%)	3		1	3	4	1	4	1
Research -											
Networks	1 (17%)	1 (17%)	4 (66%)							1	1
Hospitals	6 (10%)	2 (3%)	52 (87%)	2			1	1		3	1
Education - patient -											
Networks		2 (34%)	4 (66%)				1				1
Hospitals	12 (20%)	16 (27%)	32 (53%)	4		1	4	3	1	4	11
Social welfare counselling											
Networks			6 (100%)								
Hospitals	17 (28%)	9 (15%)	34 (57%)	4		2	2	4	1	7	6
Health promotion -											
Networks		1 (17%)	5 (83%)								1
Hospitals	18 (30%)	10 (17%)	32 (53%)	6	2	1	1	3	1	8	6
Interpreter services -											
Networks			6 (100%)								
Hospitals	5 (8%)	3 (5%)	52 (87%)	1			1	3		1	2

(a) "Other" comprises either "No impact", "No response", "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Industry submissions

9.45 Three submissions were received which present various views on the above subject. These are presented below to broaden the discussion on this issue:

- The classification system does not account for non-inpatient services such as outpatient and day services, teaching and research, regional services and certain other services. For this reason, the casemix funding formula in Victoria has always explicitly included allowances for these factors and considerable effort has been expended by the Department to attempt to develop alternative output-based funding approaches for non-inpatient services.
- Public hospitals, especially major teaching hospitals, also undertake a range of roles and responsibilities that produce non-commercial outputs such as teaching, training and research which are of immense and irreplaceable benefit to the community, but which incur considerable costs.

A recent Report, prepared by KPMG Management Consulting, for a consortium of Australian States and the Commonwealth titled *Costing and Funding Teaching and Training Activities in Australian Public Hospitals (October, 1996)* reflected on this matter. Some of the most important findings were:

- about 26 per cent of paid clinical time is spent on a "multiple product" which includes not only direct patient care, but also teaching, training and research;
- only 37 per cent of paid clinical time is spent solely on direct patient care; and
- "multiple product" activities cannot be disaggregated.

The Victorian casemix formula notionally funds teaching, training and research, however, the allocation of funds bears no direct relationship to the activities performed, nor the outcomes achieved.

- I strongly believe that good outcomes and efficient health care are more related to good training for doctors, nurses and allied health professionals and the obsession with dollars and cents management of hospitals is gradually eroding this. I can certainly attest to the fact that medical student and junior doctor training suffers greatly because of the so-called efficiencies introduced in recent years. The turnover of patients and pressure on throughput effectively means that the students and younger doctors do not have time often to even see the patients and the specialist trainees do not have time to receive appropriate training from their mentors.

Lack of financial incentives for non-direct patient care activities

9.46 In audit opinion, the formula does not provide financial incentives for networks or hospitals to continue non-direct patient care activities such as health promotion, inpatient education, interpreter and counselling services. Most of these services are viewed by the Department as inputs that are non-traditional, non-medical and non-core hospital activities, and are funded through specified grants subject to submissions made to the Department.

9.47 The issue of whether these services can be directly funded by the casemix funding formula would involve, among other things, determining the agreed standard of care which should apply in public hospitals. The cost of various non-core services could then be included in clinical pathways or in the cost of care for particular services. The Department could purchase reasonable agreed packages of care for individuals covered by different areas of hospital care such as motor vehicle accident trauma.

9.48 The Department should investigate the feasibility of purchasing agreed packages of care from networks or hospitals which include non-direct patient care undertaken as part of the process of care. For example this purchasing model, which is currently in practice at the Illawarra Hospital in New South Wales, would be worthy of examination.

Part 10

Objectives and roles

OVERVIEW

10.1 The audit disclosed that objectives had been set by the Department of Human Services, networks and hospitals for the delivery of acute health services which are funded under the casemix model.

10.2 As the various policy documents examined listed numerous objectives for casemix funding and, given that the objectives can change over time, the views of the acute health industry were sought in regard to:

- the major objectives for the introduction of casemix on the basis that these should have remained constant since the inception of casemix; and
- whether the major objectives have been met.

10.3 Audit felt that isolating the major objectives set in 1993 for the introduction of casemix would have made it easier for organisations to comment on whether such objectives had been achieved.

10.4 The audit revealed that, overall, organisations had a clear understanding of the major objectives for the introduction of casemix.

10.5 It is interesting that the initial objectives for the introduction of casemix were regarded by networks and hospitals as strongly focusing on efficiency relative to quality of care whereas, in more recent times, the wider acute health objectives of the Department, networks and public hospitals place a much higher priority on quality.

10.6 The Department advised that all the objectives compiled by audit from policy documents and reports are important, and that the major objectives in introducing casemix have clearly been met. The audit revealed that only 33 per cent of networks and 17 per cent of hospitals held this view.

10.7 In reviewing Statewide services, the Department should investigate the widespread view expressed by hospitals (65 per cent) and one-third of networks that casemix has introduced perverse incentives which potentially undermine acute health services. In particular, comments provided in other areas of this Report suggest that attention be directed to the qualitative aspects of health care such as any unnecessary physical and emotional stresses on patients, as well as any factors that detract from direct patient care. In audit opinion, this approach would be consistent with the Department's mission of placing considerable emphasis on meeting people's needs.

10.8 It is audit's view that the objectives for the introduction of casemix have been met to varying degrees. Despite some reservations most success has been attributable to the major objectives which have largely been met. For example, the industry has been far more effective in meeting those objectives surrounding efficiency compared with those which safeguard the quality of care.

OVERVIEW *- continued*

10.9 Based on the survey results, the Department should seek the views of networks and hospitals on whether there is a need for greater departmental involvement to provide further guidance in terms of best management practice and appropriate strategic approaches to capitalise on the output-based funding system.

10.10 Although casemix has been in operation for 5 years, hospitals indicated that a relatively high proportion of doctors, nurses and allied health staff (around two-thirds) only have a "mixed level" of understanding of casemix. This matter needs to be addressed by the Department.

10.11 In relation to the role of the Department as the purchaser of acute health services, audit has indicated that further enhancements are required.

INTRODUCTION

10.12 In assessing the key audit objective of whether acute health services funded under casemix had been effectively managed, it was necessary to firstly discuss the objectives for the provision of acute health services and operational constraints before addressing the objectives of casemix which is the output-based system to fund these services.

10.13 Prior to discussing the broad objectives for acute health, it was necessary for audit to gain an understanding from the Department of the role of its Acute Health Division, major factors that impact on the overall management of acute health services, government priorities for reform and major risk management strategies employed by the Department for the provision of acute health services under casemix.

10.14 Although the prime task was to assess whether the anticipated objectives for casemix had been achieved, it was important that audit also understood and examined some of the wider issues relating to acute health to which casemix related such as:

- service planning for the community's acute health needs;
- the concept of purchasing unspecified acute health services (known as undifferentiated WIES); and
- the linking of quality of care objectives to the health service agreement process also needed to be covered by audit.

10.15 As such, comment relating to these matters is made in association with those relating to the objectives of acute health services later in this Part of this Report.

A DEPARTMENTAL PERSPECTIVE OF OBJECTIVES AND ROLES

10.16 The Department advised audit that, "the Acute Health Division of the Department of Human Services is responsible for ensuring that the acute care needs of the community are met in compliance with Commonwealth and State Government policies and in the context of the Medicare Agreement.

"Services are to be delivered in accordance with Victorian Government policy which can be broadly stated as:

- to put people first, not institutions or systems;
- to obtain value for taxpayers' funds;
- to ensure a fair distribution of limited resources; and
- to provide a better health status and outcome for all Victorians.

"The general economic framework that applies to the provision of acute health services addresses 2 broad elements, namely:

- technical efficiency - price and standard/quality; and
- allocative efficiency - distribution and type of services.

"It is important to note, from the outset, that casemix is not a health policy. It is a very important tool to deliver improved technical efficiency, but it is, at the end of the day, neither more, nor less than a sophisticated output-funding instrument. Achieving or just monitoring other objectives, such as standards of care, quality, appropriateness, distribution and access require other approaches and instruments, only some of which are well developed, e.g. accreditation. The level at which choices about these objectives varies and accountability for their achievement varies likewise. For example, choice about an individual patient's care is made at the hospital, not departmental level".

What are the major factors that impact on the Department in the overall management of acute health services?

10.17 "The objectives of Acute Health are to :

- ensure that Victorians have appropriate access to acute health services that are responsive to individual needs;
- ensure that innovative service delivery reforms are continued; and
- improve the efficiency of acute health services.

"At the broadest level, the factors influencing acute health services are:

- the health status of Victorians; and
- their demand and expectations for acute health services.

"Within the provider sector, key influences include:

- the amount, quality and distribution of infrastructure, the quality of appropriate clinical staff, nursing staff and management; and
- the level of research, training and technology undertaken.

"Within government, key influences are:

- the level of funding available (both from the Commonwealth as part of the Medicare Agreement and State Budgets);
- the clarity of objectives and roles for the Department and providers;
- the clarity and consistency of policy approach with systems adjacent to acute health systems such as general practitioners and community health; and
- the private health insurance status of the population and associated policies.

"More specific issues include:

- availability of agreed measurement tools (such as International Classifications of Diseases [9th Revision] and Diagnosis Related Groups); and
- availability of data.

"Within these influences, the role of the Division is:

- to clearly state objectives;
- to implement the Government's health policy; and
- to advise government of influences and trends.

"Measurement of overall performance is measured against objectives, key indicators and other hospital systems interstate (as a start)."

What are the priorities for major reform of hospital services? What is the role of acute health services in achieving this process?

10.18 "There are a number of major challenges facing the health sector, including:

- rising demand for health services;
- increasing costs as medical technology provides more treatment options;
- continuing decline in the rate of private health insurance; and
- a growing and ageing population.

"To date, the introduction of casemix funding has delivered impressive efficiencies to the system. Priorities for the future include:

- a systematic upgrade, refurbishment and redevelopment of metropolitan public health care facilities through the Metropolitan Health Care Services Plan;
- involving the private sector in the provision of infrastructure and services to public patients;
- removing unnecessary regulation and implementing National Competition Policy;
- innovative programs such as Hospital in the Home, co-ordinated care trials and new forms of community-based care; and
- maintaining technical efficiency in the hospital system.

"At a larger level, the fragmented nature of the health service funding and delivery between the Commonwealth, States and private sector leads to inefficiencies and potentially poor quality care. Acute Health is an active participant in attempts to change the care system, but is only one player in a big arena."

Are there any improvements that the Department would like to promote in the management of acute health services by health care networks and individual hospitals?

10.19 "Networks have been in existence for less than 2 years. The original goals in the creation of the networks, which included:

- service and facility rationalisation;
- moving services closer to where people live;
- better governance in a more business-like manner; and
- integration of care.

are yet to be fully realised.

"The need for some networks (particularly Western and North Eastern Health Care Networks) to manage inherited structural difficulties and the need for all networks to absorb efficiency and wage increase costs has been a focus of their early work - along with planning, and the Metropolitan Health Care Services Plan.

"The major current need is to allow them to develop, but with competitive stimulus and continuing pressure to maintain high levels of technical efficiency.

"At another level, the Department wants networks and hospitals to themselves take initiative in better integration, co-ordination and appropriate substitution of care to achieve better outcomes for individuals and the community."

What agreements exist between the Department of Treasury and Finance and the Department of Human Services in terms of agreed output targets? What are the key issues that require the Department to have dialogue with the Department of Treasury and Finance in relation to acute health funding?

10.20 "WIES throughput targets are agreed with Treasury each year, and published in the Government's Budget papers. A key issue relates to shifting the Treasury focus from concentrating solely on throughput to improving health outcomes and health status. This requires consideration of issues such as demand management; providing incentives to hospitals to deal with more difficult, needy cases; access to emergency services and elective services within reasonable periods; and an ability to recognise alternatives to a hospital stay (e.g. active diabetes management). In particular, agreement with Treasury of appropriate output or performance measures are required."

What have been the major risks associated with casemix? What has been the Department's risk management strategy?

10.21 "Key risks and adopted management strategies are identified below:

- **Risk** that individual cost-weights are inaccurate or that costing data underpinning weights is not accurate. **Strategy** is that a cost-weights study annually reviews cost-weight data, and has had progressively wider coverage of hospitals. The cost-weight study has also had a specific brief to examine the adequacy of costing and feeder systems, and statistical and clinical review of resultant cost-weights is undertaken.
- **Risk** that cost-weights are unfair and do not adequately compensate providers for unusually expensive cases. **Strategy** is to make a review of outlier policy a key component of review of funding formula each year.
- **Risk** that cases are inappropriately coded as inpatients or that cases are "overcoded" to a higher value Diagnosis Related Group. **Strategy** is to undertake an annual casemix audit covering both random and selected sites and Diagnosis Related Groups. Greater use of selected audits will be undertaken in 1997-98, supplemented by changes to rules in 1995-96 to cap Same Days or to admit all neo-nates where spirit of rules were flaunted.
- **Risk** of changes in technology changing the relative costs of particular Diagnosis Related Groups. **Strategy** is an annual rebasing of cost-weights.
- Normal issues of provider financial risk and budget risk pre-date casemix."

OBJECTIVES OF ACUTE HEALTH SERVICES

Overall audit comment

10.22 A comprehensive set of objectives and associated strategies in various forms have been established by the Department, networks and hospitals for the delivery of acute health services. During the course of the audit, it became apparent that the Department needed to have a greater focus on service planning by taking into account community needs for acute health when establishing output targets for networks and hospitals. In becoming a more selective purchaser, the Department's approach of largely purchasing unspecified services from networks and hospitals could also be modified.

Major objectives for the delivery of acute health services in Victoria

10.23 The following information was compiled from an audit examination of relevant policy documents and responses to the audit survey.

Department of Human Services

10.24 The Department's objectives for acute health services for 1997-98 can be derived from a series of key result areas and strategies designed to achieve the overall mission of the Department, which is:

"To ensure that the people of Victoria have access to services that protect and enhance their health and social well-being and to best allocate available resources to meet their needs".

Key result areas relate to the following themes:

- access to acute health services;
- responsiveness to client needs;
- focus on performance and efficient management; and
- protection and care for those at risk.

Specific strategies to achieve these results include the requirement to:

- develop the program known as "Healthstreams", with a gradual shift away from acute services to a greater proportion of non-acute community-based models of service delivery;
- redevelop service infrastructure;
- improve integration and co-ordination through expansion of post-acute initiatives;
- evaluate cost-effective models which substitute community-based health care services for inpatient services;
- expand contestable purchasing mechanisms;
- review Statewide services;
- implement a policy of mandatory accreditation for public hospitals by the year 2000;
- encourage adequate Commonwealth funding to meet the required level of services;
- encourage reduction in the level of reporting requirements for Commonwealth/ State programs; and
- implement a number of quality and infection control initiatives.

Networks and hospitals

10.25 The most common responses given by network and hospital Chief Executive Officers as to their hospital(s) major objectives for the delivery of acute health services for their catchment population are listed below:

- to provide a quality service that meets community needs;
- to deliver a range of services within its level of clinical skills and resources in a safe and efficient manner; and
- to ensure equity of access and delivery of services.

Objectives of the Department's purchasing strategy

10.26 The Department's response to the audit survey is outlined below:

"The Department's purchasing strategy is outlined in the 1997-98 Policy and Funding Guidelines. The purchasing strategy evolves each year within the broad government directions.

"Since the inception of casemix, the Department has consciously left decision-making about which services are to be supplied at the individual patient level to providers and their clinicians.

"The elective surgery and emergency services bonus schemes provide incentive for these services, most particularly to enhance access, but do not specify service type.

"Only unique or Statewide services such as lithotripsy, infectious diseases and HIV/AIDS are specifically purchased and, even then, by bulk tender without detailing precisely which services should be made available to individuals.

"The 1997-98 policy marks the consolidation of improvements to established policies for inpatient care and the beginning of activity-based funding for ambulatory care. The broad pricing system incorporates a strong base level of throughput with growth options at 3 levels.

"Same Day cost-weights apply for 91 Diagnosis Related Groups (i.e. groupings of patients into common classes with similar clinical conditions) where the Same Day cases are clinically and resource distinct from the population.

"Targets continue to be set for specific Same Day medical Diagnosis Related Groups. Where Same Day medical activity exceeds these targets, the additional activity is not funded by the Department. The Same Day caps will be reviewed during 1997-98.

"The Department has prepared a draft discussion paper on service planning. Departmental service planning is to be at the macro-level irrespective of the networks' role which is to focus at a micro-level on needs-based planning. The Department's planning will not be restricted to examining particular catchment areas but will be undertaken on a Statewide basis. Departmental planning would acknowledge, for example, that rural populations have a higher level of illness and injury as a proportion of the population, and is to be used as a resource allocation tool to move resources from one area to another based on where services should be.

"The role of networks and public hospitals is clearly defined in Health Service Agreements in terms of the outcomes of acute health services to be provided".

Service planning for community acute health needs

10.27 Audit supports the Department's initiative to pay greater attention to service planning to ensure that the services purchased under its purchasing policy meet changes in the community's health needs. In this regard, it is important that the Department takes into account population-based acute health needs, adjusted for factors such as the socio-economic status of the community when setting output targets for networks and hospitals. Unless greater priority is given to this area, the increased efficiencies represented by increased throughput volumes may not necessarily result in an overall improvement in the health status of all Victorians.

10.28 The Department's capacity to give greater consideration to the outcomes of service planning is hampered by a lack of well-developed service planning functions, particularly in the Department's rural regional offices. As such, the Department should assess the adequacy of service planning undertaken at regional offices and develop a planning framework in consultation with these offices to enable consistent and high quality health outcomes to be achieved. Service planning for rural areas should be linked into other departmental decision-making processes, such as the capital planning process.

Purchase of unspecified acute health services by the Department

10.29 The Emergency Service Performance Scheme and Elective Surgery Enhancement Program are designed to ensure patients have access to essential services on the basis of clinical need. The increase in throughput of elective and emergency patients indicates that overall access to hospital acute services has improved. This conclusion would be misleading, however, if access had improved only for particular types of patients or in only particular types of services. Most of the increase in throughput prior to 1995-96, for instance, was due to a significant increase in Same Day medical treatments, compared with any major increase in the more complex Multi-Day admissions.

10.30 The Department's decision to not specify the types of acute health services it wishes to purchase has resulted in a number of drawbacks which are listed below:

- As approximately 90 per cent of reimbursements are made to networks and hospitals for unspecified services, this practice creates an opportunity for hospitals to supply acute health services which may not align with the acute health objectives of the Department. For example, hospitals may supply inappropriate services because they are profitable under the casemix payment system, or increase certain services due to provider-driven demand, thereby reducing the availability of acute resources to meet the demand for other and perhaps more important acute health needs in the community; and
- Networks and hospitals have an opportunity to cross-subsidise services within the Acute Health Program by using the delivery of profitable services to compensate for any losses in undertaking unprofitable services under casemix. This process diminishes incentives under casemix funding to improve the efficiency of clinical practices.

10.31 To address these problems, the Department has suggested a "demand management" approach towards its purchase of acute health services. However, hospital morbidity data (i.e. the rate of illness and disease as recorded in hospital data), upon which the Department relies, is not a good measure of the underlying demand for acute health services as it is a reflection of what is supplied rather than what is needed.

10.32 The Department should consider:

- Developing utilisation indicators in conjunction with those already developed on a broad scale under the Public Health Program. As part of this process, the Department should develop intervention rates for specific clinical procedures, based on clinical advice, and continue to monitor utilisation patterns against a definitive program of purchasing policies;
- Identifying gaps in the provision of services through improved service planning;
- Specifying, through the tender process adopted for the purchase of additional acute health services, the types of services it wishes to purchase. For example, some hospitals have withdrawn ophthalmological services not through the lack of clinical need but due to the unprofitable nature of these services. This can also be addressed through role delineation which would specify the types of services a hospital is able to deliver and those services which should not be delivered on the grounds of patient safety; and

- Assigning greater attention to purchasing services on an evidence-based clinical care approach, i.e. purchasing services that have a proven clinical value. It is acknowledged that this approach is in its infancy as a purchasing strategy. In this regard, the expert advice of the Department's Casemix Clinical Sub-committee would be a critical input into this process.

10.33 These measures would assist in ensuring that acute health policy objectives are achieved in relation to:

- obtaining value for money in purchasing acute health services;
- improving the equity of access to acute health services;
- maintaining a level playing field between networks or hospitals (e.g. by capping or discounting unwanted services or increasing cost weights of necessary treatments); and
- promoting the specialisation of the general hospital system and the integration of acute health services through the substitution of acute services with community health programs.

Is quality of acute health services built into Health Service Agreements?

10.34 Health Service Agreements represent a contractual obligation for the level and range of services to be provided for an agreed quantum of funding. As such, the agreement process promotes an output-orientated approach to hospital service delivery.

10.35 The introduction of casemix funding into the agreement process requires each network or hospital to determine the extent of acute health services it can provide and to negotiate the level of services to be delivered for each quarter with the Department which is the purchaser.

10.36 Unlike service agreements that are in place for some departmental programs, agreements with networks and hospitals covering acute health services only include quantitative targets. A range of agreed objectives and strategies relating to quality of service delivery, such as those included in the Department's Preschool Program, have not been included in the agreement process applicable to acute health services due to the difficulty in developing suitable indicators.

10.37 The inclusion of key qualitative aspects of acute health service delivery in the development of future Health Service Agreements such as access, responsiveness and providing safe care would reinforce the commitment of networks and hospitals towards a focus on quality of care.

ACHIEVEMENT OF ACUTE HEALTH OBJECTIVES

10.38 The views of the industry, as disclosed through the audit survey, are summarised below:

- Three (50 per cent) networks and 33 (55 per cent) hospitals specifically claimed that good or significant progress had been made towards achieving their major objectives for the delivery of acute health services. The remainder, which did not provide an overall conclusion to the extent of progress achieved, indicated a variety of views many of which are outlined below.
- Individual networks offered the following comments in relation to their own network:
  - There is a significant amount of basic consulting and planning to do in the network before results can be realised. In this regard, the network advised that capital works projects require substantial involvement of the Departments of Human Services and Treasury and Finance. This involvement can subsequently slow the process;
  - Many quality initiatives have had to be deferred in the network; and
  - There has been a reduced level of scope of services which has impacted on access and availability of services in the network.
- The more common responses from hospitals are outlined below:
  - accreditation has been achieved;
  - in terms of access, in some cases the range of services in particular hospitals has increased while in others there has been a reduced scope of services;
  - activity level targets have been achieved to some extent; and
  - financial difficulties and funding changes restrict total progress towards the achievement of objectives.

BARRIERS TO ACHIEVING ACUTE HEALTH OBJECTIVES

Overall audit comment

10.39 It needs to be acknowledged that in the acute health environment there are a multitude of factors, many of which are outside the control of the Government, that can act as a barrier to achieving the objectives for acute health services. Barriers identified by the Department generally centred around the broader non-governmental factors while networks and hospitals tended to concentrate on those attributable to the way in which acute health was managed by the Department.

10.40 While around 8 out of every 10 hospitals and half of the networks consider that the short time frame affects planning and the ability to take full advantage of the financial incentives under the formula, the Department does not at this stage regard the 12 month financial cycle as imposing a significant restriction on networks or hospitals in achieving reform. As there is greater flexibility under the casemix payment system in terms of the Department setting from year-to-year the level and price of services it wishes to purchase, the main constraint on the Department in providing a longer budget cycle for hospital funding, however, is the annual nature of the State's budget process.

10.41 Despite the sentiments expressed to audit by networks and hospitals, there are practical difficulties in extending the budgetary cycle beyond the 12 month budgetary cycle. The Department does not see a need to provide hospitals with any greater certainty as, in the opinion of the Department, no other industry has such a certainty of funding with so little risk in terms of market share. The Department indicated that even schools had to compete whereas hospitals are not subject to this extent of competition.

Constraints to the achievement of acute health objectives

10.42 According to the Department, some of the characteristics of the acute health services environment, which can act as a barrier, relate to:

- growth pressures on hospital usage associated with an ageing population;
- continuing pressures on waiting lists and emergency departments of hospitals;
- lack of progress in reforming Commonwealth/State roles and responsibilities; and
- increasing costs associated with advancements in medical technology.

10.43 Barriers identified by several networks and hospitals in response to the audit survey are listed below:

- unavailability of adequate funding to introduce changes;
- lack of flexibility in funding;
- the privatisation of major facilities is not consistent with integration of care as it will lead to competition rather than co-operation;
- the lack of ability to plan with a one year budget cycle; and
- difficulty of attracting medical practitioners and specialists especially to rural areas.

Ramifications of a 12 month funding cycle

Views of networks and hospitals

Please indicate whether you agree or disagree with the following statements:

	Agree	*Disagree*	*Other (a)*
"The annual basis of funding the hospital system prevents planning for the provision of acute health care in the long term." -			
Networks	3 (50%)	3 (50%)	
Metropolitan hospitals	10 (77%)	2 (15%)	1 (8%)
Rural hospitals	41 (87%)	5 (11%)	1 (2%)
"There is enough time within the 12 month financial cycle to take full advantage of the financial incentives contained in the casemix formula." -			
Networks	3 (50%)	3 (50%)	
Metropolitan hospitals	2 (15%)	9 (69%)	2 (16%)
Rural hospitals	7 (15%)	37 (79%)	3 (6%)

(a) "Other" comprises either "No response" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

OBJECTIVES OF CASEMIX FUNDING

Overall audit conclusion

10.44 In the absence of any policy direction as to the relative significance of each of the objectives for the introduction of casemix and as it is acknowledged that the emphasis placed on individual objectives can change over time, audit sought input from the acute health industry. The Department informed audit that all of the objectives compiled by audit are important and that it invests considerable attention and energy in all of the areas. In terms of prioritising objectives, networks and hospitals were in general agreement with what constituted the major objectives at the time of the introduction of casemix. In the opinion of networks and hospitals, the 3 highest ranked objectives were to:

- improve the efficiency of public hospitals;
- introduce a fair basis for funding hospitals in the context of overall budget reduction; and
- fund the flow of patients rather than institutions.

10.45 It was interesting to find that safeguarding quality of care attracted one of the lowest ratings in order of significance given that the Victorian Commission of Audit in 1993 saw opportunities for maintaining high quality service delivery in the context of substantially reduced budgetary costs.

Views of the Department, networks and hospitals

10.46 To explain the basis by which objectives were ranked, audit sought expert advice from the market research firm that was engaged to carry out and assist in interpreting the results of the audit survey of network and hospital Chief Executive Officers. The technical explanation provided to audit is as follows:

> *"The following table reflects the mean rankings of issues by the networks and hospitals. There appears to be a strong convergence of opinion on the top 3 ranked issues across networks and hospitals; and also within hospitals as reflected in the limited variability with the samples' top rankings when measured by standard errors".*

Please rank from 1 to 11 the Government's objectives for the introduction of casemix funding in order of decreasing significance.

	Networks	*Metropolitan hospitals*	*Rural hospitals*
Creating market forces to balance the demand, supply and resourcing of services	6	9	6
Developing a system that was free from centralised bureaucratic control	8	11	10
Encouraging competition between health care service providers	9	7	7
Funding the flow of patients rather than institutions	**3**	**3**	**2**
Introducing fairness by paying the same amounts for services regardless of their location	7	**1**	4
Promoting hospital autonomy and strengthening business management skills	5	6	9
Rewarding efficiency	4	5	8
To improve the efficiency of public hospitals	**1**	**2**	**1**
To introduce a fair basis for funding hospitals in the context of overall budget reduction	**2**	4	**3**
To provide for an expansion in the number of patients treated and thus to allow a reduction in waiting lists	11	8	5
To safeguard the quality of care	10	10	11

10.47 In the absence of any ranking by the Department, audit sought to determine an industry ranking of the casemix objectives for the purpose of identifying the major objectives for the introduction of casemix funding. The Department of Human Services' response to the methodology used by audit through the market research survey was as follows:

> *"Attempting to rank Government objectives and policy by numbering boxes trivialises the nature of such developments. Casemix funding arrangements have been in place in Victoria for 5 years. As new developments occur, planning needs change and new technology emerges, clearly priorities need to change".*

10.48 In the light of the Department's position, the networks and hospitals ranking of objectives was considered to reflect the industry view.

ACHIEVEMENT OF MAIN OBJECTIVES FOR CASEMIX

Overall audit comment

10.49 Although the Department did not agree with the concept of prioritising objectives for casemix as part of the questionnaire process and identified a number of problems associated with measurement, it does contend that the major objectives in introducing casemix funding have clearly been met. This view is only shared by a minority of networks and hospitals, with one-third stating that only some of the major objectives had been achieved. Audit has been unable to ascertain from the Department its understanding of the major objectives for the introduction of casemix other than receiving an assurance that all the objectives were important.

10.50 In terms of measuring the effectiveness of government reform, one of the lessons to be learnt from the way in which change was introduced into acute health in 1993 is that it is essential for baseline information to be maintained at the time of introducing change and performance indicators be established so that objective measurement can occur post-implementation. Without such information, any unequivocal representations regarding program effectiveness must be viewed with caution.

10.51 On the basis of statistical information maintained by the Department and audit analysis, the audit disclosed that, despite some reservations, the main objectives at the time of introducing casemix as assessed by the industry have largely been met, while others such as safeguarding quality of care have not been met to the same extent.

Establishment of baseline data for the assessment of acute health service performance

10.52 According to specialist advice provided to audit, the Department had extensive but not comprehensive baseline data with regard to acute health services, e.g. morbidity statistics and data maintained through the Victorian Inpatient Minimum Dataset. Although sufficient data was available to evaluate performance in terms of efficiency and access of services, the limited baseline data on quality reflected the difficulty in developing such information and the lesser priority assigned to this task at that time.

10.53 Sufficient information was also lacking on aspects of the non-acute health system, particularly in relation to those services such as community-based and aged care where patients could be expected to be exposed to some element of risk from the effect of casemix.

10.54 In making the above observations, it is important to recognise that the pace at which the government reforms were implemented was a factor that would have inhibited the task of establishing a baseline of acute health service performance at the time of introducing casemix. Casemix, which was envisaged by the former Government as an information database, was in the process of development for a number of years prior to casemix funding implementation in July 1993. The current Government announced its decision in March 1993 to expand the original intention of casemix from an information system to an output-based funding system.

10.55 On this issue, the Department stated that the "measurement over a 5 year time span raises a number of estimation issues such as consistency of budget and output definitions. Not all hospital outputs have been consistently measured over the period.

"Due to more consistent reporting, interstate comparisons are more reliable and it is more appropriate to compare Victoria with other States.

"Specifically in relation to quality, objective measures even today are few. In fact, clinicians have been poor at quality measurement, even resisted its introduction, on the grounds of individualism and complexity. This situation is not unique in Victoria, it is Australia-wide and international. It is slowly changing through processes like the Australian Council on Healthcare Standards' Evaluation and Quality Improvement Program and the work of Clinical Colleges on guidelines. Debate about quality is often anecdotal and subjective.

"From the outset of casemix, the Department has monitored unplanned readmissions, patient satisfaction and access through waiting list data. These have been discussed in responses to other questions".

Views of networks and hospitals

10.56 An earlier question in the audit survey requested respondents to rank the objectives for the introduction of casemix funding. This process was necessary in order for respondents to indicate the extent to which the main objectives had been met. It was assumed that the main objectives listed below would remain unchanged over time, even though the emphasis on other objectives could be subject to change:

- to improve the efficiency of public hospitals;
- to introduce a fair basis for funding hospitals in the context of overall budget reduction; and
- to fund the flow of patients rather than institutions.

Has the Government achieved its 3 main objectives for the introduction of casemix funding?

	All achieved	*All achieved to some extent*	*Some achieved*	*None achieved*	*No response*
Networks	2 (33%)	1 (17%)	2 (33%)		1 (17%)
Metropolitan hospitals	4 (31%)	1 (8%)	6 (46%)	2 (15%)	
Rural hospitals	6 (13%)	22 (47%)	15 (32%)	2 (4%)	2 (4%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Audit conclusions on the achievement of the objectives for the introduction of casemix

10.57 Audit conclusions on each of the initial objectives for the introduction of casemix, which are outlined below, are subject to further elaboration throughout this Report.

To improve the efficiency of public hospitals

10.58 In 1993, the Victorian Commission of Audit reported that Victorian public hospitals prior to the commencement of casemix were comparatively less efficient than those in other States. Departmental data from 1992-93 to 1996-97 has shown patient throughput has increased and the cost of treatment per patient has declined to the extent that the Victorian public hospital system is one of the most efficient in Australia.

10.59 The casemix payment system has facilitated an increase in the output of hospitals in an environment of reduced health spending. The initial productivity gains were mainly achieved through cutbacks in nursing and changes in work practices such as the introduction of more flexible work rosters. As recognised in the 1996 Metropolitan Health Services Plan, future efficiency gains will require major structural reforms in the public hospital system to reduce over-capitalisation, relocate services to growth areas and thus improve access.

10.60 The Department has effectively used financial incentives to encourage increased throughput or more efficient practices in specific acute health program areas such as elective surgery throughput (waiting lists), emergency admission practices, or ambulance bypass. The Department's Elective Surgery Enhancement Program is designed to encourage hospitals to increase throughput of the more urgent and complex cases.

10.61 Various factors, however, need to be considered in interpreting this data. The exact level of improvement is difficult to quantify due to:

- definitional changes in the measurement of inpatients such as the recategorisation of outpatients to inpatients;
- better counting of throughput, e.g. there is no evidence of the increased level of cancer, renal disease and new-borns, yet separations for these services have increased; and
- incorporation of Commonwealth patients into the Victorian health system in 1994 as a result of the amalgamation of the Heidelberg Repatriation Hospital and the Austin Medical Centre.

10.62 It is also clear that efficiency improvements have been driven by acute health budget reductions particularly in 1992-93 and 1993-94. As stated earlier in this Report, it is difficult to precisely separate the effects of casemix from reductions to hospital budgets.

10.63 In taking the above factors into account, casemix, with some qualifications, has led to improved efficiency in hospitals.

To introduce a fair basis for funding hospitals in the context of overall budget reductions

10.64 In terms of the casemix objective of providing a fair basis for funding hospitals in the context of budget reductions, there was universal agreement during audit interviews with Chief Executive Officers of networks and hospitals that casemix was fairer and more equitable than the previous historically-based funding system.

10.65 A number of Chief Executive Officers commented to audit that the acute health system's capacity to deal particularly with the initial reductions in the acute health budget would have placed even greater strains on the system, without the capacity of casemix to more equitably distribute these budget reductions. Audit concurs with this view.

10.66 On the basis of the above comments, casemix has introduced greater fairness. This conclusion, however, is made with the following reservations.

10.67 Comment is made earlier in this Report of the continuing difficulties in adequately rewarding hospitals for severity of illness. Criticisms have also been levelled at the historical nature of distributing funds according to allocation patterns in place before casemix and the setting in 1995-96 of limits on Same day services. This may lead to a situation where any inequities that existed when targets were initially set would be perpetuated. In addition, the historical approach to allocating funds makes insufficient allowance for changes in community need or clinical practice that may evolve over time.

Funding the flow of patients rather than institutions

10.68 Casemix has achieved this objective to a large extent as networks and hospitals are paid for patients treated to a defined target level. In this regard, casemix is superior to historical funding whereby hospitals were funded without regard to the volume of patients treated.

10.69 There are, however, a number of factors which prevent audit from concluding that this objective was fully met, even though it may be argued that the Department's actions were desirable. For example, the Department provided additional cash injections to a number of networks and hospitals which were in financial difficulty. The Department also pays varying rates for treating patients for the different categories of hospitals, e.g. metropolitan compared with rural hospitals and large teaching hospitals compared with small suburban hospitals. Varying rates of payment are designed to achieve other policy objectives such as rural self-sufficiency, however, it does not fully satisfy the objective of funding patients not institutions. In addition, specified grants are made to specialist hospitals which treat more complex cases.

Rewarding efficiency

10.70 Hospitals that are able to treat patients within an overall average cost for particular illnesses are financially rewarded under casemix in comparison with hospitals which exceed this average. However, efficient hospitals that have a higher proportion of more costly patients such as the elderly, frail and the chronically ill are disadvantaged under casemix. In addition, less efficient hospitals may choose to cross-subsidise their operations by concentrating on providing profitable areas of clinical services.

10.71 There are additional issues that suggest efficiency is not adequately rewarded. The results of the audit survey indicated that some hospitals have treated patients for which they are not compensated. In fairness to the Department, given casemix is an output-based model, some setting of limits on the volume of hospital services is necessary.

10.72 As a general rule, casemix provides greater encouragement for hospitals to become efficient than historical funding.

Introducing fairness by paying the same amounts for services, regardless of their location

10.73 Casemix is an inherently fairer system than historical funding as it pays a total unit rate for a defined set of services. Although the initial policy was based on the principle of paying the same amounts for services regardless of their location, there were some policy parameters which required price variations to allow for factors that affect the particular categories of hospitals. As stated earlier, various categories of hospitals are paid differing rates as well as receive additional funding to achieve specific policy objectives, e.g. the Rural Specialist Core Grant to attract specialists to rural locations.

10.74 In taking into account the above factors, casemix has introduced fairness by paying the same amounts for similar services for various categories of hospitals regardless of location.

Promoting hospital autonomy and strengthening business management skills

10.75 Casemix has required hospitals to place greater emphasis on adopting a more business-like approach in areas such as managing costs. Hospitals have had to manage operations on the basis of whether acute health services will be sufficiently reimbursed for a defined set of services. On the revenue side, it has also focused hospitals' attention on profitable services which may not relate to community need.

10.76 While casemix may have promoted a business-like approach, there is scope for improving business management skills. For example, hospital cost-cutting has been directed disproportionately to support areas such as cleaning compared with areas of clinical practice. According to specialist advice, this could reflect a lack of strategic thinking. Various issues dealing with capital management, which are subject to audit comment in Part 8 of this Report, indicate that this aspect has not been managed in a business-like manner.

10.77 In terms of the level of autonomy, in some respects networks and hospitals are not completely free from centralised control. Reference should also be made to audit comment contained later in this section of the Report.

Creating market forces to balance the demand, supply and resourcing of services and encouraging competition between health care service providers

10.78 The initial policy statements on casemix placed emphasis on market forces and competition among hospitals, which implied that hospitals that could not compete would not survive.

10.79 The Department has moved from a position of requiring full-scale competition to one of introducing competition on a gradual scale through the privatisation of selected hospitals such as the Latrobe Regional Hospital and through the process of networks and hospitals tendering for additional services. The Department has also maintained the overall financial viability of the system through, for example, the injection of funds to certain networks (the former Western and North Eastern Health Care Networks) and hospitals such as Ballarat which have been in financial difficulties and by paying varying rates for treating patients in different hospital categories.

10.80 In addition, the setting of overall volume targets for networks and hospitals, the lack of differentiation of the types of services within these targets and the payment of a standard rate (known as the "total unit rate") for categories of hospitals restricts the ability of hospitals to compete for market share on a price and quality basis.

10.81 On the basis of the above comments, this initial objective has not been met as changing priorities over the years have placed less emphasis on competition and more emphasis on ensuring the overall viability of the system.

10.82 Due to the importance placed by the Government on competition, the views of the industry were sought on creating a market place for the public hospital system. Audit comment on these views follows.

Competition

10.83 Around two-thirds of rural hospitals, senior doctors, charge nurses and senior allied health professionals agreed that embracing the culture of the market place in a predominantly publicly-funded system runs the risk of failing to distribute health care services equitably, and leads to more inappropriate and unnecessary care. This view was only shared by one-third of networks and metropolitan hospitals.

10.84 It is audit's view that these sentiments need to be borne in mind when introducing private sector competition into the delivery of what has traditionally been a public domain for soundly-based reasons.

10.85 The audit raised various issues connected with the application of competition policy in the acute health arena which focused on potentially higher costs associated with the application of competitive neutrality principles and potential for conflict between introducing competition policy and service integration.

Views of the industry

Do you agree or disagree with the following statement:			
	Agree	*Disagree*	*Other (a)*
"Embracing the culture of the market place in a predominantly publicly funded system runs the risk of failing to distribute health care services equitably, and leads to more inappropriate and unnecessary care." (*Jeffrey Braithwaite, School of Health Services Management, University of New South Wales, " Competition, Productivity and the Cult of 'More is Good' in the Australian Health Care Sector",* Australian Journal of Public Administration, *March 1997, p. 37)*			
Networks	2 (33%)	3 (50%)	1 (17%)
Metropolitan hospitals	4 (31%)	6 (46%)	3 (23%)
Rural hospitals	32 (68%)	13 (28%)	2 (4%)
Senior doctors - Heads of clinical departments	178 (67%)	73 (27%)	15 (6%)
Charge nurses	172 (56%)	115 (38%)	18 (6%)
Senior allied health professionals	97 (63%)	46 (30%)	11 (7%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

10.86 The application of competition policy into the acute health area requires further clarification particularly in terms of its practical application and its impact on other policy areas.

Potential additional costs - competitive neutrality

10.87 The Victorian Government's Competitive Neutrality Policy is outlined in the document titled *Competitive Neutrality: A Statement of Victorian Government Policy* July 1996. The objective of competitive neutrality is to ensure that public sector businesses do not obtain a competitive advantage over potential private sector competitors solely as a result of public ownership.

10.88 A number of networks indicated to audit that the application of competitive neutrality under competition policy has the potential for the Government to pay more for the provision of services than would otherwise have been the case. This applies to where the public sector tender for a government service is less than the private sector bid.

10.89 Prior to the application of competitive neutrality, the public sector tender in these circumstances would be more cost-competitive. After adding costs not incurred by the public sector, such as taxation and dividends, to the public sector tender price to ensure that the private sector is not competitively disadvantaged, the public sector tender will become comparatively less financially attractive if these adjustments exceed the initial tender price differential between the bids. As these adjustments to the public sector tender price are notional costs rather than actual, the acceptance of the private sector tender will result in the Government paying more for the service unless the public sector bid is deemed competitive after bringing in all notional costs as required by the competition policy.

10.90 The Government may need to assess its position in relation to the application of competitive neutrality principles in the acute health industry where additional costs will be incurred if efficiency gains by public sector providers do not equate to or exceed these notional costs.

Service integration and continuity of care in a competitive environment

10.91 The audit disclosed several matters that need to be considered if the concepts of service integration and continuity of care are to be effectively implemented by networks in an environment where public providers compete with private providers.

10.92 The 1996 Metropolitan Health Services Plan states, inter alia:

> *"The Metropolitan Hospitals Planning Board's vision of networks of care will link a range of health services, including community hospitals, aged care, tertiary referral hospitals and psychiatric services through common governance structures. These networks will provide the means to establish a seamless service where patients can be treated locally with the benefits of home based care, ambulatory care and increasing levels of intervention should that be required, often within the one network".*

10.93 In summary, the Plan proposes the provision of integrated services under common governance based on patient needs.

10.94 Several network Chief Executive Officers indicated to audit that under a competitive regime, the following circumstances could pose difficulties in promoting the integration of services:

- in a vertically integrated clinical program network structure embracing hospital and community-based care, the introduction of a private provider may not necessarily operate in a way that would be conducive to achieving service integration within the network's programs; and
- in a network that has retained hospitals as separate entities, a private provider entering the network may not subscribe to the principles advocated by service integration.

10.95 Audit was advised that a private provider located either within or adjoining network boundaries will be under a separate contractual arrangement with the Government. The Department intends to introduce arrangements to encourage more integration and continuity of services such as affiliation agreements to be signed by both private and public sector providers.

10.96 In order to provide a framework which promotes service integration and continuity of care where competition between public and private providers has been introduced, the Department should give clearer direction to networks and hospitals in terms of:

- clarifying the impacts of the application of competition policy on the objectives of the 1996 Metropolitan Health Services Plan (or vice versa);
- how the 2 policies are to be reconciled through the interrelation of their separate implementation strategies; and
- the role of the networks, hospitals and the Department in the implementation process of the 2 policies.

Developing a system that was free from centralised bureaucratic control

10.97 Casemix is a centrally-managed system which, by necessity, requires the Department to maintain overall control through the setting of payment rates, total volume of services and the relative cost of services. In addition, there are additional reporting requirements on networks and hospitals through the need to comply with additional data standards associated with various departmental information systems.

10.98 The Department has taken the view that networks and hospitals should be given the freedom to manage within policy and funding parameters. Audit agrees that this has occurred and the Department has only become involved in operational issues on an exception basis such as assisting hospitals in financial difficulties. Given these circumstances, a narrow interpretation of whether this objective has been met would be that the system is not completely free from centralised bureaucratic control. In audit opinion, the role of the Department has been appropriate in the circumstances. In this regard, audit has made suggestions that would strengthen the Department's role in providing greater direction to the industry, while maintaining the operational autonomy of hospital managers, through, for example, the greater specification of the types of services that the Department wishes to purchase.

To provide for an expansion in the number of patients treated and thus to allow a reduction in waiting lists

10.99 There has been a substantial increase in elective surgery throughput in the years following casemix, however, a large proportion of this increase related to Same Day services. Some changes in definitions since the introduction of casemix have led to a greater number of patients treated. Further analysis by audit of the value added of this increase was not possible due to departmental system limitations.

10.100 While urgent and semi-urgent categories on the waiting list have declined, the increase in demand for public hospital services has meant that the number of patients in the non-urgent category has increased. As such, the overall numbers on the waiting list have remained relatively constant since the introduction of casemix. On the basis of information maintained by the Department, there has been an expansion in the number of patients treated and there has been a reduction in waiting lists for those in the urgent and semi-urgent waiting list categories. The audit has suggested, however, that the extent to which patients may have been recategorised from urgent to semi-urgent and from semi-urgent to non-urgent needs to be subject to periodic examination by the Department with the assistance of independent clinical input.

To safeguard the quality of care

10.101 In audit opinion, there is a prima facie case, based on information contained in Part 4 of this Report, to suggest that the government reforms including casemix have adversely impacted on some aspects of quality of patient care. Based on the views of clinicians, there has been a deterioration in quality of care. As such, it is questionable as to whether certain groups have not been exposed to some element of risk.

10.102 Some of the initiatives designed to safeguard quality of care that have recently been implemented in response to the government reforms are listed below:

- development of a Post-Acute Care Program;
- participation in the Commonwealth Co-ordinated Care Trials;
- establishment of the Acute Health Quality Committee;
- funding of a series of infection control audits; and
- financial incentives for hospital accreditation.

PERVERSE INCENTIVES CREATED DUE TO CASEMIX WHICH POTENTIALLY UNDERMINE SERVICES

Overall audit comment

10.103 Although audit is not permitted to criticise government policy, it would appear from the network and hospital response that there have been some undesirable elements of casemix which have the potential to undermine the delivery of acute health services.

10.104 The Department should investigate the veracity of these claims.

Views of networks and hospitals

Please indicate whether you agree or disagree with the following statement: "Casemix has introduced perverse incentives which potentially undermine acute health services."

	Agree	*Disagree*	*Other (a)*
Networks	2 (33%)	3 (50%)	1 (17%)
Metropolitan hospitals	9 (69%)	2 (15%)	2 (16%)
Rural hospitals	30 (64%)	11 (23%)	6 (13%)

(a) "Other" comprises either "No response", "Don't know" or "Not applicable".

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

10.105 The following submission provided in response to the audit advertisement by a surgeon with 18 years experience in the Victorian public hospital system encapsulates the potential perverse incentives contained in casemix funding:

> *"In general, I believe that casemix has some positive management impact on the economics of health care delivery in the hospital system. It appears to be a by-product of the obsession with economic rationalist influenced management techniques. I wish to point out strongly that delivery of health care cannot be related to this strategy and nothing else. There are many qualitative aspects of health care which cannot be described in terms of dollars and cents and I believe that casemix has had a significant negative effect with regard to health outcomes and effects on health care professionals.*

"With regard to quality of care and health outcomes, casemix in general has driven a policy of early discharge which I believe is often inappropriate and in some cases leads to unnecessary readmission to hospital. This may certainly have some benefits on waiting list management but I believe some patients suffer unnecessary physical and emotional stresses because of it. I am concerned also that the manpower placed into data collection and the correction of information which may have an impact on casemix funding detracts from direct patient care. I believe there is also an element of creativity applied to describing co-morbidity in an attempt to get the maximum casemix allocation. Again, this often takes medical manpower away from the direct delivery of health care. I have certainly noted the great proliferation in paperwork, the general productivity of which I think can be questioned."

ORGANISATIONAL ROLES IN THE PURCHASER/PROVIDER MODEL

Overall audit comment

10.106 The audit disclosed that the respective roles in acute health of the Department, regional offices, networks and hospitals are well defined. There is, however, a strong view among networks as to the future role of metropolitan regions in the current structure of the Department. Five networks and one-quarter of hospitals, the majority of which are located in the metropolitan area, advised that the Department's regional offices do not have a role in the purchaser/provider model.

10.107 The Department needs to clarify the role of metropolitan regions with networks to ensure that the role regional offices have in acute health is seen as adding value by the respective networks.

10.108 Audit has commented earlier in this Part of the Report on the desirability of the Department adopting a greater selective purchasing role.

Department of Human Services

10.109 The role of the Department in acute health can be briefly summarised as follows:

- to fulfil the role as the purchaser of acute health services;
- to fund and control the allocation of financial resources;
- to formulate purchasing policy; and
- to set purchasing guidelines to enable providers to design a suitable service structure.

10.110 The Department has a macro-planning role in terms of implementing the 1996 Metropolitan Health Care Services Plan. It has introduced a contestable service delivery program and in recent times, population factors have been taken into account within the casemix formula.

10.111 According to the Department, "the role of the metropolitan regions has been clarified and the new arrangement is the subject of a service agreement. The role of metropolitan regions in acute health is now limited to system-wide planning and capital developments. They retain a much greater role in aged and mental health.

"Asset ownership has been the subject of a jointly steered consultancy. The consultants' report will need to be linked to the separate, but closely related, issue of capital charging.

"In the metropolitan regions there is a reduced role for regions, with networks liaising directly with acute health staff in Head Office in matters of purchasing and financial monitoring. Regional offices retain a key role in system-wide planning and capital developments. Regional offices in the rural areas have an enhanced role across all functions".

Networks

10.112 The Department of Human Services advised audit of its view of the role of the networks as follows: "It is important to note, from the outset, that networks provide acute, aged care and mental health services. Some also provide other State-funded services like alcohol and drug treatment services. Some also provide Commonwealth-funded services and all provide private services. The Acute Program funds about 70 per cent of network services, of which about 70 per cent is inpatient casemix. In other words, casemix inpatient funding is about half of the total funding going to networks.

"Networks have delivered considerable benefits in improved efficiency through productivity dividends and increased internal levels of productivity. They have contracted-out an increasing level of non-clinical services, rationalised existing infrastructure within the networks and have brought a commercial approach to the management of the networks. Networks are beginning to improve the integration of services, for example, between aged care and acute. Further efficiency yields will, in part, depend on capital investment in more efficient infrastructure and information technology systems.

"Networks, in conjunction with the Department, have joint responsibility for ensuring increased equitable access to hospital services. Network-wide targets with campus reporting allows networks to redesign services according to local priorities, with appropriate accountability, within a State context.

"Networks are provider aggregations, although they do, and should, engage in considerable purchasing in their own right. The role of the Department, as outlined in the 1996 Metropolitan Health Care Plan, is as a metropolitan-wide purchaser.

"Networks and the Department have jointly considered 3 sets of issues which have needed clarification. These are:

- some confusion and overlap in the role of networks, the Department and the Department's metropolitan regions;
- asset ownership and capital planning constraints; and

- the possibility of contestable processes resulting in parts of networks' current or proposed operations being conducted by private operators including denominational operators.

"These issues have all been, or are being, addressed.

"The performance of networks in meeting government policy objectives will be important in determining their long-term future".

10.113 According to the most common themes outlined to audit by hospitals, the role of networks is to provide services across a wide and large population base in an efficient and co-ordinated manner in line with departmental policy.

Hospitals

10.114 The role of hospitals can be broadly described as follows:

- to act as an acute health service provider to the Department and, in the case of metropolitan hospitals, to carry out a provider role within a detailed network purchasing policy;
- to design and implement the best possible local service; and
- to respond to the needs of the catchment population by providing clinically appropriate services.

DEPARTMENTAL ROLE IN PROVIDING ADVICE ON CASEMIX

Overall audit comment

10.115 Audit acknowledges that the current role of the Department is not to "micro-manage" but to provide networks and hospitals with a level of autonomy to manage their operations within policy and funding constraints set by the Department. Nevertheless, it is audit's view that, based on the survey results, the Department should seek the views of networks and hospitals on whether there would be value in providing agencies with further guidance, in terms of best management practice and appropriate strategic approaches, to capitalise on the output-based funding system which it introduced throughout the hospital system some 5 years ago. In undertaking this assessment, the Department should pay particular attention to the needs of smaller rural hospitals.

Views of networks and hospitals

Please indicate whether you agree or disagree with the following statement: "The Department provides assistance and guidance in terms of best management practice and appropriate strategic approaches to capitalise on the output-based funding system."

	Agree	*Disagree*	*Other (a)*
Networks	1 (17%)	5 (83%)	
Metropolitan hospitals	1 (8%)	10 (77%)	2 (15%)
Rural hospitals	1 (2%)	45 (96%)	1 (2%)

(a) "Other" comprises either "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

❒ ***RESPONSE*** *provided by Secretary, Department of Human Services*

The Department has provided State and Commonwealth-produced education material to all hospitals, held numerous forums, seminars, information and training sessions, and provided training in casemix modeling packages as well as funding for casemix data analysis software. The Department also advised that staff participate in numerous industry and clinically-based conferences and forums, and special support has been provided in relation to coding queries with the establishment of a special help line and coding newsletters.

ROLE OF HOSPITALS IN CASEMIX TRAINING

Overall audit comment

10.116 The audit disclosed that, metropolitan hospitals, and to a lesser extent rural hospitals, have taken on the role of providing training and education in casemix theory for their staff.

Views of hospitals

Does the hospital provide any training or education in casemix theory for its staff?

	Yes	*No*	*No response*
Metropolitan hospitals	12 (92%)	1 (8%)	
Rural hospitals	31 (66%)	15 (32%)	1 (2%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

10.117 Almost all of the hospitals that do not provide training or education in casemix theory for their staff are situated in rural locations.

10.118 The main reasons put forward by hospitals for the absence of training or education in casemix theory for staff include:

- insufficient funds and not considered to be a high priority education area;
- staff training concentrates on clinical and quality issues rather than funding issues; and
- small rural hospitals have little control over casemix factors.

UNDERSTANDING OF CASEMIX THEORY

Overall audit comment

10.119 As indicated in Part 11 of this Report, the audit survey established that around two-thirds of hospitals have reorganised their management structures in response to the government reforms by decentralising budget and output controls to business units. Furthermore, two-thirds of metropolitan hospitals surveyed have devolved financial responsibilities to doctors.

10.120 The survey results show, however, that there is still a majority of clinicians in hospitals who do not fully understand the implications of casemix funding.

10.121 In relation to the one-third of hospitals that had evaluated the level of understanding of the casemix formula among its hospital managers, a one-third of the administrative staff and a significantly higher proportion of clinicians only had a mixed understanding of casemix funding.

10.122 In audit opinion, this general lack of comprehension could be due to:

- the lack of on-the-job training to link casemix theory with business management;
- the casemix formula's general complexity, e.g. the need to understand difficult statistical concepts;
- general misconceptions as to the role of the formula in distributing finite acute health resources between networks or hospitals; and
- the lack of an operational manual that explains the basic concepts of casemix funding such as weighted inlier equivalent separations, inlier equivalent separations and cost-weights.

10.123 The Department should consider providing further opportunities for managers to improve their understanding of the casemix funding formula through the development of educational material targeted at:

- hospital administrators and business unit managers including senior clinicians;
- members of Boards of Management and lower level hospital staff through a layman's guide to casemix theory; and
- university undergraduate courses in health administration, nursing, medicine and allied health.

Views of the Department, networks and hospitals

Has your organisation evaluated the level of understanding of the casemix formula of hospital managers?

	Yes	*No*	*Other (a)*
Department of Human Services			
Metropolitan hospitals	6 (46%)	7 (54%)	
Rural hospitals	14 (30%)	29 (62%)	4 (8%)

(a) "Other" comprises either "No response" or "Don't know".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

10.124 The Department advised that details regarding the general level of understanding of casemix among hospital managers are included in the forthcoming Royal Melbourne Institute of Technology Report, commissioned by the Department, to review the effects of casemix.

Views of metropolitan hospitals

What is the general level of understanding of casemix funding in the following staffing categories in your hospital:				
	Very High	*High*	*Mixed Levels*	*Poor*
Administrative staff	1 (17%)	3 (50%)	2 (33%)	
Doctors		2 (33%)	2 (34%)	2 (33%)
Nurses		1 (17%)	5 (83%)	
Allied health staff		2 (33%)	3 (50%)	1 (17%)

Note: Responses from hospitals have been provided by the Chief Executive Officer of each organisation.

Views of rural hospitals

What is the general level of understanding of casemix funding in the following staffing categories in your hospital:				
	Very High	*High*	*Mixed Levels*	*Poor*
Administrative staff	4 (29%)	6 (42%)	4 (29%)	
Doctors		2 (14%)	11 (79%)	1 (7%)
Nurses		5 (36%)	9 (64%)	
Allied health staff		2 (14%)	10 (72%)	2 (14%)

Note: Responses from hospitals have been provided by the Chief Executive Officer of each organisation.

Part 11

Initiatives and strategies for improvement

OVERVIEW

11.1 The acute health industry response to the audit questionnaire process revealed that a wide range of measures has been introduced by networks and hospitals to manage the delivery of acute health services in an environment of extensive government reform involving substantial financial constraints. Examples of some of these measures relate to the introduction of specific output targets, the reduction in core service expenditure, length of stay, discharge planning, use of pre-admission clinics, the adoption of a more business-like approach to the management of hospitals and the reorganisation of hospital structures.

11.2 In terms of future strategies, audit was encouraged to receive many suggestions for improvement from what is obviously a very dedicated management workforce which is working towards providing excellence in acute health care delivery. These suggestions need to be examined in the context that they are provided by an elite group of the most eminently qualified practitioners in the acute health arena, the majority of whom have worked in the public health system for over 10 years, and the Chief Executive Officers of networks and hospitals.

11.3 Most of these strategies importantly involve a greater focus on issues relating to enhancing the quality of patient care.

11.4 The matters outlined in this Part of the Report should be considered by the Department of Human Services in future policy development.

CHANGES IMPLEMENTED BY HOSPITALS

Overall audit comment

11.5 The audit disclosed that a wide variety of changes have been made by hospitals in response to the introduction of casemix funding and/or micro-economic reforms. The most common practices that have changed related to the:

- introduction of specific output targets;
- reduction in core service expenditure; and
- implementation of training strategies to improve knowledge of casemix funding.

11.6 Some progress has been made by hospitals in the following areas:

- clinical practices altered to enhance efficiency;
- business management skills increased; and
- discharge planning introduced to reduce the average length of stay.

11.7 While the public hospital sector is commended for its proactive approach in implementing a wide range of changes to meet the challenges brought about by government reform of the acute health industry, the audit revealed that:

- even though the Government has a strong commitment to outsourcing, half of the hospitals had not outsourced any non-casemix funded areas;
- one in every 4 rural hospitals maximised its revenue flows through a focus on profitable services; and
- almost half of the hospitals were involved to some extent in cost-shifting to Commonwealth funded areas.

11.8 Changes in metropolitan hospitals have been more pronounced than in rural hospitals.

Views of hospitals

Since 1 July 1993 which of the following changes have been made by the hospital in response to the introduction of casemix funding and/or micro-economic reforms?

	To a large extent	To some extent	Not at all	Other (a)
Admission practices changed to reduce unwarranted hospitalisation -				
Metropolitan hospitals	3 (23%)	8 (61%)	1 (8%)	1 (8%)
Rural hospitals	7 (15%)	26 (55%)	14 (30%)	
Budget and output controls decentralised to business units -				
Metropolitan hospitals	3 (23%)	6 (46%)	3 (23%)	1 (8%)
Rural hospitals	8 (17%)	18 (38%)	16 (34%)	5 (11%)
Business skills increased -				
Metropolitan hospitals	3 (23%)	7 (54%)	2 (15%)	1 (8%)
Rural hospitals	12 (26%)	31 (66%)	3 (6%)	1 (2%)
Clinical budgeting introduced -				
Metropolitan Hospitals	2 (15%)	4 (31%)	6 (46%)	1 (8%)
Rural Hospitals	1 (2%)	17 (36%)	21 (45%)	8 (17%)
Clinical cost centres introduced -				
Metropolitan Hospitals	3 (23%)	7 (54%)	2 (15%)	1 (8%)
Rural Hospitals	7 (15%)	17 (36%)	17 (36%)	6 (13%)
Clinical indicators established to monitor health outcomes -				
Metropolitan Hospitals	2 (15%)	9 (69%)	1 (8%)	1 (8%)
Rural Hospitals	8 (17%)	29 (62%)	8 (17%)	2 (4%)
Clinical practices altered to enhance efficiency -				
Metropolitan Hospitals	2 (15%)	10 (77%)		1 (8%)
Rural Hospitals	8 (17%)	37 (79%)	2 (4%)	
Core service expenditures cut -				
Metropolitan Hospitals	4 (31%)	7 (53%)	1 (8%)	1 (8%)
Rural Hospitals	16 (34%)	23 (49%)	7 (15%)	1 (2%)
Cost shifting to Commonwealth funded areas -				
Metropolitan Hospitals	1 (8%)	5 (38%)	4 (31%)	3 (23%)
Rural Hospitals	3 (7%)	19 (40%)	23 (49%)	2 (4%)

Since 1 July 1993 which of the following changes have been made by the hospital in response to the introduction of casemix funding and/or micro-economic reforms?

	To a large extent	*To some extent*	*Not at all*	*Other (a)*
Devolvement of financial responsibility to doctors as managers -				
Metropolitan hospitals	2 (15%)	7 (54%)	3 (23%)	1 (8%)
Rural hospitals	2 (4%)	17 (36%)	23 (49%)	5 (11%)
Discharge planning introduced to reduce average length of stay -				
Metropolitan hospitals	4 (30%)	7 (54%)	1 (8%)	1 (8%)
Rural hospitals	12 (25%)	29 (62%)	6 (13%)	
Doctors held accountable for budgetary outcomes via contracts with output targets -				
Metropolitan Hospitals	1 (8%)	4 (31%)	6 (45%)	2 (16%)
Rural Hospitals	2 (4%)	9 (20%)	34 (72%)	2 (4%)
Increased transfers of patients to non-casemix funded areas -				
Metropolitan Hospitals		6 (46%)	6 (46%)	1 (8%)
Rural Hospitals	1 (2%)	16 (34%)	28 (60%)	2 (4%)
Information from clinical costing systems introduced or expanded -				
Metropolitan Hospitals	2 (16%)	9 (68%)	1 (8%)	1 (8%)
Rural Hospitals	5 (11%)	18 (38%)	18 (38%)	6 (13%)
Outsourcing of non-casemix funded areas -				
Metropolitan Hospitals	2 (16%)	3 (23%)	7 (53%)	1 (8%)
Rural Hospitals	4 (9%)	17 (36%)	23 (49%)	3 (6%)
Pre-admission clinics introduced or expanded -				
Metropolitan Hospitals	5 (38%)	3 (23%)	3 (23%)	2 (16%)
Rural Hospitals	5 (11%)	17 (36%)	20 (42%)	5 (11%)
Privatisation of non-casemix funded areas -				
Metropolitan Hospitals	2 (15%)	6 (46%)	4 (31%)	1 (8%)
Rural Hospitals	2 (4%)	17 (36%)	22 (47%)	6 (13%)
Quality standards strengthened to safeguard level of patient care -				
Metropolitan Hospitals	2 (15%)	5 (39%)	3 (23%)	3 (23%)
Rural Hospitals	12 (26%)	27 (57%)	7 (15%)	1 (2%)
Revenue flows maximised through admissions which focus on low severity of illness -				
Metropolitan Hospitals		1 (8%)	10 (77%)	2 (15%)
Rural Hospitals	1 (2%)	9 (19%)	35 (75%)	2 (4%)
Revenue flows maximised through focus on profitable services -				
Metropolitan Hospitals	1 (8%)	1 (8%)	10 (76%)	1 (8%)
Rural Hospitals	1 (2%)	11 (23%)	35 (75%)	

Since 1 July 1993 which of the following changes have been made by the hospital in response to the introduction of casemix funding and/or micro-economic reforms?
- continued

	To a large extent	*To some extent*	*Not at all*	*Other (a)*
Revenue flows maximised through reviews of coding practices -				
Metropolitan Hospitals	4 (31%)	7 (53%)	1 (8%)	1 (8%)
Rural Hospitals	10 (21%)	24 (51%)	13 (28%)	
Specific output targets introduced -				
Metropolitan Hospitals	4 (31%)	8 (61%)		1 (8%)
Rural Hospitals	18 (38%)	14 (30%)	13 (28%)	2 (4%)
Standard clinical protocols introduced -				
Metropolitan Hospitals	1 (8%)	9 (69%)	2 (15%)	1 (8%)
Rural Hospitals	5 (11%)	27 (57%)	13 (28%)	2 (4%)
Strengthened utilisation review processes -				
Metropolitan Hospitals	1 (8%)	8 (61%)	3 (23%)	1 (8%)
Rural Hospitals	5 (11%)	28 (59%)	13 (28%)	1 (2%)
Training strategies implemented to improve knowledge of casemix funding -				
Metropolitan Hospitals	7 (54%)	4 (30%)	1 (8%)	1 (8%)
Rural Hospitals	12 (26%)	28 (59%)	7 (15%)	

(a) "Other" refers to "No response", "Don't know" or "Not applicable".
Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

11.9 Other material changes made by various hospitals in response to the introduction of casemix funding and/or micro-economic reforms are listed below:

- significant organisational changes including:
  - staff reductions;
  - restructure of clinical departments into clinical programs (e.g. the Cancer and Palliative Care Program) where interrelated services are aggregated to improve patient care coordination and access;
  - role changes to a number of facilities;
  - increase in number of medical records, administrators, admitting staff and medical administration;
  - review of all departments by consultants; and
  - restructure of financial reporting along program lines, using casemix data;
- better use of rehabilitation beds, hostel respite care and nursing home beds;
- more detailed monitoring of key performance areas;
- major work practice reforms; and
- less time and money devoted to traditional comfort items and processes.

MAJOR INITIATIVES FOR DELIVERY OF ACUTE HEALTH SERVICES

Overall audit comment

11.10 As acute health is an obvious key service delivery area of government that has been subject to major change during the 1990s, the introduction of reform has called for major initiatives to be implemented by the Department, networks and public hospitals.

11.11 The audit revealed that agencies had responded well to the challenges by introducing a broad suite of measures. Strategies have ranged from the large-scale privatisation of entire hospitals to managerial and organisational measures at a network and hospital level.

Views of the Department, networks and hospitals

If certain treatments or procedures can be provided more efficiently in the private sector, what is the Department's view on outsourcing these services?

11.12 Audit was advised by the Department that "the Government's policy position is that the provision of infrastructure and services to public patients through the implementation of the Metropolitan Health Care Services Plan should be open to the private sector under a contestable process. There will be opportunities for the private sector to tender to deliver public health services at the privately operated hospitals at Berwick and Knox and at the Austin Repatriation Medical Centre. These new or redeveloped services will be offered to competitive tenders from both the public and private sectors. The tenderers will be assessed strictly on the basis of the criteria established in the tender documentation. Based on experience with the tendering of the Latrobe Regional Hospital, this will include factors such as price, quality of patient care and relevant clinical expertise".

What major strategies has the network developed to assist hospitals in effectively managing acute health services under the Government's acute health reforms?

11.13 Networks have developed a range of strategies to assist hospitals to effectively manage acute health services. These strategies included:

- a greater focus on length of stay and "product costs", e.g. pre-admission clinics, day of surgery admission, care paths, discharge planning and the Hospital in the Home Program;
- use of the Australian Council on Healthcare Standards' Evaluation and Quality Improvement Program to focus on hospital and program sub-systems;
- the adoption of a process of decentralised management and a more business-like approach including the use of data systems, clinical management and service agreements;
- the provision of clinical and management staff training and development;
- service redistribution and resource reallocation;
- the provision of detailed budgets to the department head level at each hospital;
- clear explanation of hospital strategies to deal with each annual budget;

- extensive communication with staff regarding continuous improvement and proposed changes;
- competition policy implementation, including market contestability programs; and
- reorganisation and restructure, including networking, process re-engineering, various consultancies, industrial relation agreements, review of all non-clinical services, centralising corporate functions and recruitment of high quality staff.

What are your organisation's major initiatives for the delivery of acute health services for the catchment population?

11.14 Major initiatives introduced by networks for the delivery of acute health services for their respective catchment population are detailed below:

- implementation of network plans;
- network structures utilised to achieve operational savings and network skills to develop clinical guidelines, protocols, and best practice models;
- the completion of health needs analyses and clinical service reviews;
- the finalisation of Charter agreements with the Australian Council on Healthcare Standards;
- the provision of on-going 24 hour emergency service;
- expansion of services such as chemotherapy, renal dialysis, the Hospital in the Home program and elective surgery; and
- construction of facilities such as coronary care, an angiography laboratory and an integrated health care centre.

11.15 Various hospitals nominated the following major initiatives for the delivery of acute health services for their catchment population:

- provide or upgrade the quality of services and facilities;
- improved continuity of care through improved integration;
- development or expansion of services including community programs, surgical services, day surgery, dialysis, discharge and admissions planning, primary care services and preventative health programs;
- workforce planning; and
- physical redevelopment to increase efficiency including establishing satellite services, development of hostel accommodation and rebuilding of hospitals.

INITIATIVES EMPLOYED TO MANAGE BED AVAILABILITY

Overall audit comment

11.16 Strategies identified to balance the demand for beds between elective surgery and emergency treatments centred around direct hospital intervention, admission and discharge planning and more resources devoted to this particular area.

Views of hospitals

What strategies does the hospital employ to manage the dynamic tension between competing priorities to optimise the financial benefits available under the formula, e.g. beds for elective surgery versus beds for accident and emergency patients?

11.17 Two-thirds of hospitals indicated that they have no opportunity to choose, i.e. patients are treated as required. This situation is more prevalent in rural areas where three-quarters of rural hospitals were in this category compared to one-third of metropolitan hospitals. According to rural hospitals, they have little scope to direct admissions elsewhere.

11.18 Among the strategies employed by various hospitals to manage the dynamic tension between competing priorities to optimise the financial benefits available under the formula are:

- direct intervention in bed usage, such as daily review of bed occupancy and early discharge;
- effective admission and discharge planning, including pre-operative clinics established to facilitate day of surgery admission, and transfer of elderly patients requiring respite care to other agencies; and
- more resources devoted to co-ordination, coding and management.

MEETING TARGETS IN HEALTH SERVICE AGREEMENTS

Overall audit comment

11.19 Networks have pursued many avenues to meet agreed targets. Strategies related to planning, financing, improving efficiency, reporting, performance monitoring and structural reforms.

Views of networks

What is the network's overall strategy to ensure that the network and individual hospitals fulfil the acute health requirements of the Health Service Agreement?

11.20 A consolidation of strategies developed by networks to ensure that they and individual hospitals fulfil the acute health requirements of the Health Service Agreement is presented below:

- developing business plans, service agreements and clinical programs;
- supplementing funding from sources other than through the Health Service Agreement;
- treating an increased number of patients in a more cost-effective manner;
- ensuring that reporting requirements prescribed by the Department are met;
- regular reporting of performance against targets, variances and appropriate action taken;

- monitoring of performance at Board level in terms of the requirements of the Health Service Agreement which include matters relating to throughput, revenue, bonuses and penalties;
- promoting decentralised management structures; and
- ensuring corporate and administrative services are provided at a low cost.

FURTHER DEVELOPMENT OF PATIENT CHARTERS

Overall audit comment

11.21 In the majority of cases hospitals have a patient charter in one form or another. The inclusion of particular standards in charters was not supported by networks, however half the hospitals considered there was a need for this information to be available publicly on an individual hospital basis. Overseas experience demonstrates that one could argue that there is scope for additional disclosure of more indicators than is currently available for individual hospitals in Victoria.

Views of the Department, networks and hospitals

What is the Department's view on the need for a patient charter that contains specific standards or benchmarks for acute health services such as maximum waiting times for elective surgery and minimum length of stay?

11.22 According to the Department, "a patient charter, *Putting Patients First - Public Hospitals: What Do They Offer You?* was released in 1995, which sets out the standards of service and care that patients can expect in public hospitals, with particular regard to access, choice and participation, information, quality and complaint mechanisms. This booklet does not contain specific measures or benchmarks.

"The *Hospitals Services Report*, however, has been published quarterly since 1995 to provide more specific performance information to the public and hospital sector on the extent, quality and accessibility of acute health services.

"Measures which are reported, include: the number of patients treated within ideal times within emergency departments; patients staying in emergency departments for greater than 12 hours while waiting for a hospital bed; periods of ambulance bypass; the number of patients, classified according to need, on the elective surgery waiting lists; and the number of available beds for patients requiring critical care services.

"It is the intention of the Department to make relevant and informative information available to the public and a major review of the *Hospitals Services Report* will be commissioned in 1997-98 to ensure that the structure and contents are informative, user-friendly and better directed towards target audiences.

"The problem with specifying maximum waiting times for surgery relates to the concept of clinical need. Each patient is assessed by their clinician prior to being placed on a hospital waiting list. The clinician allocates each patient with a clinical category (1, 2 or 3) depending on the urgency of the patient's presenting condition. The categories reflect the clinical urgency of surgery for that patient. The principle which underlies this is that patients with the greatest clinical need should receive priority for surgery. This is a sound principle. If maximum waiting times for surgery are specified, it is possible that someone who has been waiting on the waiting list for a long time, might be given precedence for surgery, over someone who has waited for a shorter period of time, but whose condition is more serious.

"The Department and the Advisory Committee on Elective Surgery has considered incentives and reporting which includes a maximum waiting time for surgery, but have always discounted such measures because of the principle of ensuring patients with the greatest need receive treatment. Someone on a waiting list for tattoo removal might wait for a long time for surgery. Should there be a maximum waiting time imposed, the tattoo removal patient might receive surgery ahead of someone with a heart condition, simply because the tattoo patient had waited for the maximum period. The debate needs to be directed to whether patients wait longer than clinically desirable, given the nature of their condition, rather than the actual length of the wait per se".

In relation to the hospital(s) you are responsible for, do you:

	Yes	*No*	*na*
Consider that individual hospitals should develop specific patient charters to include further details of their service obligations, patient expectations and patient rights -			
Networks	2 (33%)	3 (50%)	1 (17%)
Consider that there is a need for a specific patient charter to be developed for individual hospitals that contains specific standards or benchmarks for acute health services such as maximum waiting times for elective surgery and minimum length of stay -			
Networks		5 (83%)	1 (17%)
Metropolitan hospitals	6 (46%)	7 (54%)	
Rural hospitals	23 (49%)	19 (40%)	5 (11%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Does the hospital have its own patient charter (i.e. a public document that includes details of service obligations, patient expectations and patient rights).

	Yes	*No*	*na*
Metropolitan hospitals	11 (85%)	2 (15%)	
Rural hospitals	25 (54%)	19 (40%)	3 (6%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Inclusion of a more comprehensive information in patient charters

11.23 In audit opinion, a patient charter should include a statement of service obligations of the hospital, patients' rights and responsibilities, and specific standards or benchmarks. Audit's views on customer charters were a feature of the Auditor-General's Special Report No. 44 titled, *Timeliness of service delivery: A customer's right.*

11.24 The audit revealed that hospitals used a variety of publications, some of which are shown below:

11.25 In terms of standards and benchmarks, hospitals tended to outline in broad terms the standards of care to which patients are entitled, the hospital's expectations of the patient, options of care available to patients and general information about the hospital.

11.26 In terms of annual reporting, overseas experience from the United States of America revealed that more detail is disclosed to the public by way of indicators such as:

- risk and severity adjusted mortality rates;
- risk and severity adjusted complications;
- average length of stay;

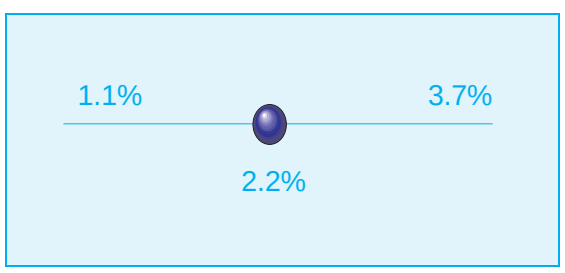
- total facility occupancy;
- patient volume; and
- waiting times.

11.27 Risk and severity-adjusted data attempts to account for health-related factors which may affect how a patient responds to treatment. Such factors can include, but are not limited to illness severity, age of patient, patient life style factors (such as exercise, and diet) and medical history of the patient.

11.28 Examples of the procedures used for risk and severity indicators drawn from international experience include data for cardiac patients, major blood vessel repair, pneumonia, chronic lung disease, total hip replacement and spine surgery.

11.29 Mortality rate refers to the proportion of a population that dies during a specified period. The mortality rate for indicators used in reports from the United States of America are based on the number of people who died following a given diagnosis or procedure, divided by the total number of people who had the diagnosis or procedure done in that hospital. Experts in quality outcomes measurement have strong reservations about using severity-adjusted mortality rates as an absolute gauge of the quality of care provided by a hospital, as other factors (patient risk, lifestyle and socio-economic) must also be considered. Mortality is just one indicator of hospital performance, it cannot be used as the primary measure of the overall quality of care provided by a hospital. The reporting of this information varies. One example is shown in Chart 11A.

CHART 11A
CORONARY ARTERY BYPASS GRAFTS MORTALITY RATE 1995, HOSPITAL A



11.30 The simple graph illustrates that the expected range of mortality rate for coronary artery bypass grafts at Hospital A is between 1.1 per cent and 3.7 per cent. The expected range is calculated based on 2 hospital-specific factors: the severity of illness of the patients treated and the total number of cases performed. A hospital that treats a more severely ill population would be expected to have a longer average length of stay and a higher mortality rate. In 1995 the mortality rate for coronary artery bypass grafts at Hospital A was 2.2 per cent. These trends are monitored and compared over time to enable hospital management and potential patients to gauge a hospital's performance.

11.31 While it is encouraging that 6 out of every 10 hospitals utilised some form of patient charter, the concept of patient charters should be universally accepted by all hospitals and include more comprehensive information. Indicators such as those disclosed in the United States of America by way of annual reporting could be adapted as a guide.

DEVELOPMENT OF CORRECT INCENTIVES FOR HOSPITALS

Overall audit comment

11.32 The overwhelming majority of the acute health industry supports the thrust of getting casemix incentives right and rewarding hospitals for performance, notably in terms of quality and accessibility of acute health services. Even though this sentiment was expressed in December 1996, the industry response suggests that further work is still required.

Views of the industry

Do you agree or disagree with the following statement:

	Agree	*Disagree*	*DK/No Response*
"The use of casemix as a purchasing tool is now well-established in Victoria. The challenge is to get the incentives right and reward hospitals who perform in terms of throughput, in terms of emergency and elective management and in terms of quality and accessibility criteria." *(Dr Michael Walsh, Director of Acute Health Services, Department of Human Services, "Past the teething stage - Casemix in Victoria: the first 3 years,"* Australian Casemix Bulletin, *December 1996, p. 31)*			
Networks	6 (100%)		
Metropolitan hospitals	9 (69%)	1 (8%)	3 (23%)
Rural hospitals	36 (77%)	9 (19%)	2 (4%)
Senior doctors	161 (61%)	92 (35%)	13 (4%)
Charge nurses	201 (66%)	90 (30%)	14 (4%)
Allied health professionals	109 (71%)	37 (24%)	8 (5%)

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

SUGGESTED IMPROVEMENTS TO ACUTE HEALTH SERVICES UNDER CASEMIX

Overall audit comment

11.33 A wide range of suggestions was brought to audit's notice by networks and hospitals.

Views of the industry

Allowing for current and any future funding constraints, what major changes (if any) would networks and hospitals like to see in the management of acute health services?

11.34 The audit disclosed that 5 out of the 6 networks considered there was a need to relate funds to the health needs of the catchment population. In addition, 4 out of the 6 networks and one-quarter of hospitals suggested that the funding formula should be aimed at the provision of service and maintenance of infrastructure.

11.35 In particular, other changes that networks and hospitals considered to be warranted are listed below:

- improved payment to more accurately reflect the cost of complexity and long stay patients;
- acknowledgment in the formula of specialised services not appropriately funded using the "average" price basis, e.g. intensive care, burns and prosthetic procedures;
- a more equitable basis for allocating capital funding such as through allowance for capital funding in the casemix formula;
- greater quality incentives;
- the formula to be made less complex;
- greater transparency regarding the basis of funding formula, e.g. whereby hospitals can determine whether award variations have been appropriately funded;
- the introduction of population-based funding;
- stability to enable assessment to occur, including review of past year's performance, in order to establish real target and input levels;
- firm budgets by early June each year;
- a minimum 2 year planning cycle;
- longer time frames to assist networks and hospitals in the implementation of policy and funding changes, e.g. including the introduction of new cost weights;
- improved consultation between the Department and networks or hospitals;
- a consistent funding approach for the Acute, Aged, Mental Health and Community Health Programs;
- abolish the regional approach as the delivery of services under casemix does not require this model;
- make regional offices more accountable for their resource allocation decisions;
- provide adequate funding for teaching and research;
- all health care services to be administered by either the State Government or the Commonwealth Government but not by 2 levels of governments;
- the funding of long stay patients needs to be resolved;
- better organisation of services provided pre and post-discharge;
- a standard (core) information technology, reporting and data structure;
- the need to promote useful benchmarking data;

- establish better definitions of "quality care" by improving measurement;
- there is a need for the Department to require less detailed information; and
- allowances made for treating older patients who need more concentrated care.

11.36 In addition, a number of rural hospitals suggested there was a need for:

- increased funding for public medical payments in country-based hospitals;
- greater recognition of the difficulties in rural hospitals due to "fee for service" contracts;
- an expansion of casemix funding to include rural non-admitted ambulatory care;
- an increased input from rural sector hospitals into casemix planning processes;
- better allowances for costs of isolation;
- acknowledgment of additional infrastructure costs associated with rural hospitals;
- exemption from output-based funding for small rural hospitals;
- better reflection of actual medical costs and ambulance costs for rural settings;
- the identification of health professional training needs in rural Victoria; and
- full payment of rural training positions in medicine, nursing and health

Other comments relating to the management of acute health services funded under casemix

- There is no perfect system. However, casemix was the vehicle used to get rid of an inefficient historic funding system which was unable to be made efficient because during the 1980s hospitals were not permitted to touch the staffing inefficiencies. It has meant improvement to this hospital and better services e.g. more flexibility for management.
- Casemix as a system of measuring hospital throughput is better than previous systems and is highly sophisticated.
- There is a temptation for some to blame casemix for shortcomings which are really the result of insufficient funding.
- The future of the system lies with funding based on outcomes.
- Casemix is based on a system of averaging (i.e. average costs for a group of products) which may bear no relationship to the actual costs of any one product within the group. With any system of averaging, there will always be winners and losers.
- Casemix funding is not appropriate for small rural hospitals because there is a minimum level of staffing required regardless of the numbers of patients treated, i.e. the fixed component of the cost structures are far higher than in larger hospitals.

Views of industry groups

11.37 Various submissions were received by audit, extracts of which are set out below to provide a more complete picture of initiatives suggested for the future:

- The overall quantum of funds for Victorian public hospitals is insufficient. While recent initiatives to improve capital stock, fund improved information systems and the belated recognition that demand is increasing are all welcome, the cuts made since 1992 were very severe and concentrated in time. The deficiency between costs and revenue is of the order of $140 million, i.e. about 6 per cent under current service delivery arrangements.

  A stronger focus on health status, health outcomes and population health issues rather than exclusive focus on throughput could help make treatment more consistent, more cost-effective and more appropriate.

  A greater focus on quality of care issues is appropriate and necessary. The Department of Human Services has prepared several studies and reports on quality issues in recent years and some progress has been made. Concrete measures which could be taken include the development of nationally agreed indicators and the conduct of specially designed quality pilot projects.

  The Victorian Public Hospital Information, Information Technology and Telecommunications Strategy highlighted major deficiencies in the public hospital information management infrastructure. To replenish this infrastructure to even a basic level, comparable to that in the commercial world, will cost an estimated $400 million. Better infrastructure will enable hospitals to improve their information systems in such a way as to support information-based management decisions, improve their clinical costing systems, and begin to provide systems which enable the linking of patient data to provide a longitudinal patient record. Every hospital network currently has multiple patient databases which are highly fragmented and various developments are occurring to address this major issue.

  A number of changes are required to current reporting arrangements. The Department commissioned a firm of consultants to conduct a study published in December 1995 known as the *Review of Public Hospitals' Financial Reporting Requirements.* A number of significant and appropriate recommendations were made but few have been implemented. There is strong industry support for many of the recommendations contained in the report. Casemix has created additional reporting burdens for hospitals and these requirements should be rationalised.

  Commonwealth-State relations remain complex. Casemix offers a tool to enable reform of the Commonwealth-State arrangements to occur, since it makes feasible national formula approaches. The funding of public hospitals from Canberra directly is not supported unless the approach draws from a pool of funding calculated on a population basis.

  Integration of services was a major goal of the creation of the hospital networks but competition policy and competitive neutrality principles may minimise system integration opportunities. Competition policy directed through purchaser or capitation models of network delivery could still potentially achieve both the aims of competition policy and integration.

Integration is not helped by the rigid program boundaries dividing acute health from ambulatory, aged care, psychiatric, community health, pharmaceutical and community medical services. Commonwealth and State authorities must find ways of reducing the current number of programs, of pooling funds, and of breaking down program boundaries.

The complexity of the current funding and reporting systems is causing a great deal of managerial time and expertise to be diverted to optimising funding. Hospitals are so finely balanced financially that administrators feel they must do everything to maximise their revenue but this is not seen as the best use of their time and the resources.

Priority areas that may need to be addressed in the immediate or short-term include:

- minimising the extent of further real cuts to overall funding;
- ensuring appropriate allocation of throughput targets;
- annualisation of output targets;
- obtaining reasonable marginal prices for additional throughput; and
- ensuring timely industry access to data on output conversions so that hospitals may make informed responses to additional throughput offers.

Priority areas that might be addressed in the medium to longer-term may include:

- ensuring smooth transition to an equitable output-based non-admitted patient funding system;
- improving processes for developing cost-weights;
- accurate and equitable costing of the public medical payment;
- reviewing the training and development grant; and
- reviewing the split between base throughput and additional throughput and the purchasing structures around additional throughput.

- Clearly, the significant issue is not whether some hospitals, as distinct from clinicians, have recategorised patients to less urgent categories, but rather the initial categorisation of patients and need for the application of standard definitions across all hospitals. Hopefully, the Clinical Categorisation Project [to promote greater consistency across the hospital system in the categorisation of elective surgery patients on admission] will be successful in addressing this matter. Briefly, I think there should be at least 4 clinical urgency categories, as the current category 2 definition is open to too many interpretations. Category 2 could be clarified as follows:
  - Category 2A - admission within 90 days acceptable for a condition causing some pain, dysfunction or disability and which may deteriorate in that time; and
  - Category 2B - admission within 90 days acceptable for a condition causing some pain, dysfunction or disability but which is unlikely to deteriorate quickly or become an emergency.

This would clearly separate, for instance, the orthopaedic joint replacement patients who are in pain and have dysfunction, but are unlikely to deteriorate quickly, from the other category 2 patients with whom they are increasingly being classified. This would encourage a greater urgency of treatment for those patients who would receive the most benefit.

Booking lists for elective surgery are an appropriate management tool that are of benefit to both hospitals and patients, however, there are some inconsistencies as to how they currently operate.

It is inconsistent to have a booking made for Category 1 patients more than 30 days in advance. It is also desirable that the booking lists should form a part of the waiting lists, as booked patients are still awaiting treatment.

- First and foremost is that the case payments tied to casemix should be made to adjust yearly and to include quality and nationally agreed outcomes. Recognition of the fact that casemix payments do not appropriately reflect all acute health areas specifically in those where new technologies and medications are frequently introduced, for example:
  - neonatal care;
  - multiple co-morbidities; and
  - severity of illness.

  There needs to be valid research to address the complexities of appropriate nurse staffing levels and skillmix. International studies could be replicated in Victoria to provide evidence of the need for qualified nurses.

  There are delays in access to nursing home beds, mental health beds and rehabilitation beds. These patients once classified as requiring health care other than acute have funding reduced while remaining in acute care facilities. This is a major funding dilemma for those providing health care.

  Workforce studies already completed in Victoria should be implemented to provide the post-graduate studies in nursing for critical care areas (Intensive Care, Neonatal Intensive Care, Paediatric Intensive Care, Operating Theatre), rehabilitation and aged care. These areas in particular are suffering a shortage of skilled and experienced nurses.

  Funding should be made available for the development of best practice models for:
  - pre-admission clinics;
  - discharge planning;
  - acute aged care;
  - discharge programs;
  - acute mental health; and
  - use of nurse practitioners.

  Nurses are weary and now wary of health economic models because these have placed a heavy toll on their ability to demonstrate excellence in nursing care, which has a demonstrable effect on the community.

- Serious consideration should be given to improving the streamlining of funding mechanisms which would assist in improving the continuity of care between various service providers within the health care sector.

  The "measures" of the success, failure or otherwise of the casemix funding system should be evaluated in much broader terms, to take account of the diverse range of service providers involved in the delivery of comprehensive health services. The existing casemix funding formula, which does not account for the provision of allied health services in the provision of acute care, should be reviewed. This situation is clearly inappropriate, as these services are an integral part of the total package of quality health care and in achieving quality outcomes.

- Morale within the nursing and medical staff can definitely be improved by some recognition of their efforts.

STRATEGIES TO SAFEGUARD AND/OR IMPROVE QUALITY

Overall audit comment

11.38 A very wide cross-section of suggestions was provided in response to the opportunity given to senior clinicians in charge of clinical departments. These suggestions need to be examined in the context that they are provided by an elite group of the most eminently qualified practitioners in the acute health arena. Some of the more common themes that emerged are included in the views set out below.

Views of clinicians

Other than increasing resources to hospitals, strategies/actions suggested by senior doctors, charge nurses and allied health professionals to the audit questionnaire that could be initiated to safeguard and/or improve quality of care are detailed below.

Greater focus on quality of care rather than efficiency

- There needs to be a philosophical return to the concept that the core function of hospitals is the care for patients. There has been a severe erosion of co-operation and goodwill between departments, where the focus has shifted from patient well-being to budgetary survival.
- Health quality under casemix has rewarded the countable. How does it cope with palliative care and rehabilitation? Such "soft" outcomes are badly dealt with. The system rewards high turnover, low complication procedures. It rewards systematic over-servicing.
- Reforms have been entirely budget driven. No attention has been given to the "shop floor" quality of care. Restructuring administration does not improve quality of care, despite the rhetoric.
- Discharges should be planned on clinical grounds, not on pressures to optimise funding.

- One could easily develop a cynical attitude that the Department of Human Services was only interested in cost, leaving major quality issues to be identified by major clinical disasters, e.g. premature death of patients inadequately treated due to lack of resources. Most or all scientific approaches to a problem (e.g. health care costs) establish a hypothesis which is then tested in a small pilot project which can be refined prior to introduction to a large-scale project. Casemix was introduced, it appears, with undue haste, with little apparent concern with the outcomes, but rather the approach was to learn on the job. Is this the appropriate way to manage the vital area of health, let alone the huge budget that this represents? There have now been developed a series of carrots and sticks to manage the Department of Human Services' budget within the confines of hospital performance.
- The focus must not remain on throughput alone. We are dealing with humans. The Government must reward hospitals which perform quality care.
- The Evaluation and Quality Improvement Program being implemented by the Australian Council on Healthcare Standards, which appears diametrically opposed to the aims of casemix funding, may be a good check on the excesses of economic rationalism.
- I believe casemix and budget reforms are necessary. I have seen a lot of waste in the public sector. However, there is a limit and a need to take stock so that financial considerations do not take over from what is essentially a humane part of health care.
- I believe that both positives and negatives have arisen from the casemix funding system. Health care professionals have been forced to examine and streamline practices and to become more accountable. Unfortunately, the combination of casemix and budget cut backs has moved the focus from best clinical practice to financial expediencies on many occasions. Financial considerations appear to be cold issues, irrespective of what is being discussed. The casemix formula should not change for a couple of years to allow hospitals to plan better.
- I know of many community-type hospitals where the paediatric unit has been incorporated into an adult ward. This is against Australian Council on Healthcare Standards. Hospitals have been forced into this by casemix funding and budget cuts.
- If you concentrate on the bottom line you get "bottom line medicine".

Changes required to administration

- Patient care is an issue for doctors trained in administration, not lay business managers.
- Doctors know patients. Administrators know funding. The 2, at present, are mutually incompatible.
- To improve quality care or safeguard quality care, administrators need to have feedback at ground levels. Sometimes decisions are made in board rooms with inappropriate advice and consultation with the people who actually work in those areas.

- Redirect funding from administrative to clinical areas
- Ministers and health administration need to work one day per month in a hospital to gain a real, not sanitised or glamorised, view of what working in a hospital involves.
- Great increase in management personnel has led to more meetings and more paperwork and less patient contact time.

Funding

- Hospitals must have recurrent budget strategies for equipment replacement and maintenance.
- We are treating many patients in the public hospital system who are able but not willing to pay for their care.
- More flexibility needs to be built into casemix funding. Quality of care, teaching and research are frequently mentioned in official statements, but this is not reflected in funding.
- Casemix can only work if adequate costings determine correct weightings. There is too much averaging at present. Casemix only allows payment to one Unit on each episode of care. Many patients, e.g. trauma and major cancers, require treatment by more than one Unit. Both should be paid. Casemix does not adequately cover the increased costs involved when a training institution allows a trainee to perform an operation, taking more time, using more materials and keeping the patient in hospital longer as the junior specialist is not sure of the patient's well-being. Casemix does not take into account the various treatment costs with the same patient diagnosis, e.g. a patient with breast cancer may have a single mastectomy or a complicated reconstructive procedure but payment is the same.
- Improved funding strategies for patients with chronic and complex illnesses.
- A major plan in the casemix system, as operates in Victoria, is that the cost values are based on limited and poorly analysed data, leading to wide yearly perturbations which cause great confusion and frustration. Flaws in casemix remuneration scales lead to the real recognition that some conditions under-remunerate and this leads to avoidance of such patients. Conditions or treatments with conversely high remuneration are selected and this tends to drive clinical practice for an undesirable reason.
- If quality of care is to be optimised with health services, Casemix funding needs to be tolerant of the need for compassion when interacting with sick, needy and vulnerable people. We need to guard against a system that deems it acceptable to leave elderly, frail patients waiting interminably on trolleys or sends sick people home in the middle of the night in taxis to an empty house.
- Teaching and research are critical to maintaining quality of staff and are simply not allowed in my network. I cannot close one consulting session in order to do a clinical audit or to run a teaching session. Too much surgery is done by "advanced trainees" without a registered specialist in attendance.

- Recognise complexity of care and allow time for providing care for complex problems of health. The Government and administrative areas need to be aware that paper boundaries are not real. The single diagnosis is rare in older people.
- Build into the AN-DRG system [patient classification system] some way of allowing for compassion and humanity.
- Develop appropriate funding formulae for the cancer setting.
- Improving the training of nurses would improve quality care. Too many nurses come out of university with little idea about caring for patients and are considered to be the equivalent of a nurse with years of experience.
- If people can afford health care they should pay for it.
- Reduce patient workload on public hospitals. The Government needs to offer higher incentives for private health cover.
- The best way to reduce health costs is to provide health as "wellness" not as "illness." More preventative measures need to be addressed in educating the public in diet, fitness and responsible management of their health.
- Generally, the patients who are admitted to hospital are now sicker and are in hospital for a shorter length of time leading to a much higher acuity level. This means that medical and nursing staff are constantly pulled in numerous directions attempting to care for these patients with fewer resources.
- We as a professional group try to meet the downfalls of a faulty system. I have never in my last 3 years of nursing left the ward environment early or feeling that all services that should have been followed-up for the patient have been.
- Total funding and cost-weights are strangling the public health system. Our hospital has increased its surgical cases from 200 to 600 per month and yet we are losing money. I realise the weights reflect the complexity of the case and length of stay. Yet the type of surgery we attract has low cost-weights which decrease annually. We are a very efficient hospital that provides excellent patient care and yet our survival is constantly under threat.
- The reward for throughput should be linked with outcomes, i.e. maintenance of patient welfare. Hospitals should not be able to pick and choose which patients they admit, i.e. transfer patients requiring expensive treatments to other places if the first hospital has the appropriate technology.
- The same degree of importance should be attached to the soft aspects of patient care (e.g. counselling, communication and comfort) as is currently attached to the hard aspects (surgical outcomes and infection rates). Develop performance indicators around these.
- I am concerned about the casemix funding for allied health. I am aware of the work that the Allied Health Casemix Working Party has been doing in relation to definitions and weights, but the micro-economic reforms that have occurred over the last 5-6 years have put a big squeeze on allied health services. Our role is often not seen as essential in the acute health setting, whereas medical and nursing staff are. Our role in allied health is unique and has a great deal to contribute to an acute hospital.

Better performance indicators, standards, measurement and monitoring

- The monitoring of output and performance is pathetic and cannot allow a meaningful assessment of quality care. Assessment of performance must be adjusted for patient risk, something which the patient classification system cannot do.
- Accurate audit of clinical outcomes should be kept on monthly basis and compared regularly to maintain or improve standards.
- The patients' questionnaire is a joke. Assessment of the quality of medical services by a questionnaire focusing on the hotel aspect of care is ridiculous. Patient satisfaction has remarkably little to do with the quality of medical care.
- While casemix funding has led to increases in efficiency, increased throughput and reductions in patient stay, I feel there has been inadequate auditing of its effect on clinical outcomes (i.e. patients discharged early are not adequately monitored for results).
- The crucial issues are to develop an adequate measure of quality and an ability to determine the outcome of changes in quality. What are the effects of the current changes on health outcomes? This issue has not been properly addressed, however, I believe that this question becomes even more important where health issues are being aggressively rationed. It is important that the outcome of quality be identified with the assistance and input of all groups within the health system, but should initially be pursued within the professional and academic groups of the medical profession. I believe that this should not be another quick fix and demands the genuine commitment of the Department of Human Services.
- The Australian Council on Healthcare Standards' Evaluation and Quality Improvement Program standards are a step forward in monitoring quality of care on an ongoing basis and should be embraced by all hospitals. Hospital administration and clinical staff should continue to work on the development and monitoring of standards.
- Patients' questionnaire data should be fed back to hospitals with suggestions for improvement. A system should be developed to encourage compliance (we have not seen any action on previous surveys).
- Hospitals are able to clip the system. For example, to avoid fines for 12 hour stays in the emergency department, patients are transferred (on a computer system only) from an accident and emergency trolley to a holding bay bed when, in fact, there is no physical holding bay or ward. There is a need to monitor the increase in procedures such as tracheostomies that attract higher funding as it seems to be on the increase.
- There is a need for a Statewide minimum standard of care to be articulated so that each hospital, department, ward, unit and individual knows what is expected of them.
- Involve professional bodies as they are best placed to establish appropriate standards of care for their respective clinical practices.
- Maybe an external quality of care auditing body should be established, independent of government, to examine all government facilities or associated bodies to ensure the best quality of care is provided to Victorian clients.

- An independent professional body should be established for patients to provide feedback as to their view on the quality of care received.
- I see and talk with 50-60 patients (and carers and families) each day at work. The people employed at this hospital to design, monitor and implement quality care programs do not have that clinical experience. This questionnaire is the first time I have had any opportunity to comment on quality of care issues since being employed in Victorian hospitals.

Improved information technology

- Need improved information technology support, ideally connected between public hospitals.
- Computerised information systems which provide tracking of care delivery.
- Improve management information systems to enhance management reporting as there is still inadequate data in useable format available at the clinical level. This will require government as well as departmental input.
- Our network is seriously deficient with regard to information technology and this is the biggest barrier to increase patient care, e.g. no transfer of patient data between programs. This issue is being addressed by injection of funds to upgrade it, however in the meantime this is the biggest issue for us. Even between networks information should be able to be accessed more freely, e.g. through e-mail.

Promotion of health outcomes

- Providing a measure of cost is only part of the equation, the real clinical issue is a measure of health outcomes. The changes associated with the casemix funding experiment appeared at the same time as micro-economic reform and it is difficult to differentiate the outcomes of each process independently. However, it seems absurd to engage an experiment on cost analysis without devoting as much energy and effort to health outcomes.
- Implement mandatory measuring of patient care outcomes. Increase public awareness of common patient complaints to hopefully safeguard against recurring poor practice.

Workforce issues

- The progressive loss of experienced staff in the A1 teaching hospitals will have a substantial effect on the training of future health procedures.
- I have worked in the public system since 1974. At present, morale is very low and this contributes further to low standards.
- Research needs to be directed at staffing levels for difficult diagnoses and departments.
- Staff need to feel valued by the networks if they are to deliver services that equate to quality care. This is not the case at present and patient care will continue to suffer because of low staff morale.

Better resourcing of the non-hospital sector

- Better community support for patients being discharged is needed. Who stops work to become the carer for the time required? Better funding for the Hospitals in the Home is needed. The family general practitioner must be able to receive payment for attending to assess the problem.
- Nursing home facilities and rehabilitation facilities need to be made available. We have an aging population and the problem of having patients awaiting placement for extended periods of time in an acute care bed is only going to worsen.
- Nursing home beds are not adequate. As such, nursing home patients block acute beds constantly. Multiple bed closures in all hospitals have pressured early discharge and elective admissions increase acuity. There are not enough intensive care and critical care beds.
- A greater number of hostels should be set up for patients to stay in after discharge. This would enable acute hospital beds to be freed-up for more needy patients.
- Clearer responsibilities for general practitioners to provide care for patients in nursing homes instead of admitting them to acute hospitals.
- The Government must give more resources for care outside the acute hospital if they do not want people in hospitals, e.g. more funding for the Royal District Nursing Service, so that they can visit people on a more regular basis.

General comments

- Let me congratulate and thank you for conducting this audit. It is the first time that anyone has sought, formally, my opinion of the change in the Victorian health system and its effects on patient care, even though I have been a senior physician for some years in the Victorian public health system.

Appendix A

Extent to which audit criteria was met

In accordance with the Standards for performance auditing, general high level criteria were established by audit in order to assess the performance of the industry. The audit criteria were provided to the Department of Human Services in February 1997. The results of the assessment against the general high level criteria are shown below.

Audit criterion	*Fully met*	*Met to a large extent*	*Met to a moderate extent*	*Met to a minor extent*	*Not met*
DEPARTMENT OF HUMAN SERVICES					
The roles of the Department, health care networks and hospitals should be clearly defined and provide for a clear delineation of responsibilities.	✓				
In relation to rural hospitals, the casemix system should adequately provide for self-sufficiency and accessibility to specialist services.			✓		
The Department of Human Services should provide regular and formal opportunities for acute public hospitals to have input into the development of the casemix funding formula.		✓			
The basis for arriving at the variable and fixed-funding components of the casemix formula should be transparent to networks and hospitals.			✓		
The casemix formula should provide adequate funding or incentives for: • whole episodes of care; • rehabilitation services; • the cost of capital; • the development of new or innovative technology and clinical practices; and • research, developing and training.			 ✓ ✓	 ✓ 	 ✓ ✓
The casemix formula should provide funding or incentives which safeguard the viability of non-profit activities such as health promotion, patient education, interpreter services and counselling.				✓	
In accordance with the policies of the Government, the casemix formula needs to provide equity for: • access to disadvantaged groups such as Aboriginals, the elderly or chronically ill, and people with disabilities; and • funding individual hospitals across hospital categories which take into account substantial differences in cost structures between small rural hospitals and large teaching hospitals.			 ✓ ✓		
Accessibility of health services needs to take into account the issue of timeliness and geographical location.			✓		

Audit criterion	Fully met	Met to a large extent	Met to a moderate extent	Met to a minor extent	Not met
DEPARTMENT OF HUMAN SERVICES - continued					
The financial incentives contained in the casemix formula, which cause trade-offs and competition for the finite resources within the hospital system, need to be effectively managed, e.g. the right balance has to be arrived at in determining priorities for beds allocated for elective surgery versus beds for accident and emergency patients.		✓			
A longer-term funding approach should be considered to funding acute hospitals in order to provide greater certainty in funding levels over a number of financial years and to reduce the impact of falls in throughput which may be outside the direct control of a particular hospital.			✓		
The Department should have assessed the Australian Council on Healthcare Standards (ACHS) Care Evaluation Program to ensure that it provides a sound methodological approach to evaluating the quality of care in hospitals.				✓	
The Department should have developed a patient charter that contains specific timeliness standards or benchmarks for acute health services.			✓		
Hospitals should receive their monthly casemix data analyses from the Department in a reasonable time frame.		✓			
The methodologies used in cost-weight studies needs to be objective, fair and transparent, while sample sizes used in such studies need to be sufficiently representative of Victoria's hospital system to provide reliable and relevant results.			✓		
Diagnosis Related Group cost-weights need to adequately compensate hospitals, particularly major teaching hospitals, for the more complex cases such as elderly medical patients with multiple complications, and take into account advances in clinical practice and new or more expensive drugs.			✓		
Access to procedures and treatments across hospitals should not have reduced since the introduction of casemix.		✓			
Controls should exist that provide safeguards over the accuracy and integrity of the Victorian Inpatient Minimum Database (VIMD).		✓			
The Department should monitor the effectiveness of the acute health services that it purchases from public hospitals.			✓		
The Department should have established a baseline of acute health service performance criteria (quality) against which post-casemix assessment could be made.					✓

Audit criterion	*Fully met*	*Met to a large extent*	*Met to a moderate extent*	*Met to a minor extent*	*Not met*
DEPARTMENT OF HUMAN SERVICES - continued					
The Department should have established a baseline of acute health service performance criteria (accessibility and cost) against which post-casemix assessment could be made.		✓			
The Department should have an implementation strategy to introduce the various recommendations of the Victorian Hospitals' Associations Quality Review Working Party (March 1995) and the Health and Community Services Committee on Quality (November 1995).		✓			
The Department should have developed a strategy for dealing with any continuity of care problems both within the hospital sector and in a post-hospital setting.			✓		
Variations or extensions of casemix funding, e.g. the Hospital in the Home Program needs to be undertaken in a cost-effective manner.			✓		
Evaluative studies should have been undertaken to assess the impact of casemix funding, if any, on programs or service providers in the non-hospital sector and non-direct patient care activities of hospitals, e.g. research and teaching.					✓
Hospital reporting requirements under casemix should be sufficient to ensure adequate accountability for the delivery of acute health services.		✓			
The Department should have assessed the range and volume of procedures and treatments to ensure these services constitute the most clinically appropriate means of meeting patient needs.				✓	
The Department should have established standardised pre and post casemix data definitions to enable information to be reported accurately and to enhance the meaningful analysis of such information.					✓
NETWORKS AND HOSPITALS					
The hospital networks and individual hospitals should have clearly defined objectives in terms of the delivery of acute health services.	✓				
Strategies to introduce change in the light of casemix introduction should be reflected in the business plan and/or service plan.		✓			
Networks and hospitals should introduce processes and practices to improve efficiency and productivity.	✓				
Networks and hospitals should have formally assessed whether the introduction of efficiency measures has resulted in an improvement or deterioration of quality of care.		✓			

Audit Criterion	Fully met	Met to a large extent	Met to a moderate extent	Met to a minor extent	Not met
NETWORKS AND HOSPITALS - continued					
Networks and hospitals should have assessed the range and volume of procedures and treatments to ensure these services constitute the most clinically appropriate means of meeting patient needs.		✓			
Networks and hospitals should have implemented a methodologically sound quality assurance program.		✓			
Networks and hospitals should regularly monitor and undertake follow-up action, if necessary, in relation to results reported against mandatory performance indicators introduced by ACHS in 1991.		✓			
Networks and hospitals should assess the levels of health outcomes for particular Diagnosis Related Groups.				✓	
Clinical costing systems should accurately capture major clinical care costs.			✓		
Networks and hospital management should receive accurate and timely information on clinical costs.			✓		
Post-discharge planning practices should take into account: • the individual circumstances of patients; • the level of community services available; and • the arrangement of rehabilitation and other non-hospital services to enhance health outcomes including continuity of care.		✓ ✓ ✓			
Networks and hospitals should have introduced controls to prevent and detect any inappropriate revenue maximisation practices.			✓		

Appendix B

Impact of factors, influenced by reform, on quality of care

In order to assess whether quality of care has been safeguarded, audit sought the views, based on the professional judgement of Chief Executive Officers of networks and hospitals and senior clinicians, in relation to the impact of specific factors on quality in their hospitals. A detailed listing of these views follows:

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care

	Total respondents			*Deteriorated/Improved*							
				Influenced by both casemix and micro-economic reforms		*Influenced by casemix funding only*		*Influenced by micro-economic reform only*		*Cannot separate effects*	
	Deteriorated	*Improved*	*Other (a)*	*Det*	*Imp*	*Det*	*Imp*	*Det*	*Imp*	*Det*	*Imp*
Adequacy of information at admission -											
Networks		3 (50%)	3 (50%)				1				2
Hospitals	3 (5%)	21 (35%)	36 (60%)		3	1	3	1	4	1	11
Senior doctors	42 (16%)	55 (21%)	169 (63%)	8	5	3	15	9	7	22	28
Charge nurses	37 (12%)	115 (38%)	153 (50%)	7	23	1	21	8	11	21	60
Allied health professionals	12 (8%)	37 (24%)	105 (68%)	3	9	2	5	2	2	5	21
Administrative workload -											
Networks		1 (17%)	5 (83%)								1
Hospitals	41 (68%)	4 (7%)	15 (25%)	14		2		2	2	23	2
Senior doctors	221 (83%)	5 (2%)	40 (15%)	87	1	11		8		115	4
Charge nurses	226 (74%)	13 (4%)	66 (22%)	73	1	5	2	16	1	132	9
Allied health professionals	106 (69%)	7 (5%)	41 (26%)	36	1	7	2	8		55	4
Adoption of new technology -											
Networks		5 (83%)	1 (17%)								5
Hospitals	12 (20%)	25 (42%)	23 (38%)	5	3	1	4	2	2	4	16
Senior Doctors	108 (41%)	46 (17%)	112 (42%)	27	13	6	10	30	1	45	22
Charge nurses	58 (19%)	115 (38%)	132 (43%)	11	29	3	11	15	9	29	66
Allied health professionals	34 (22%)	53 (34%)	67 (44%)	6	14	1	8	11	3	16	28
Alteration of clinical practices -											
Networks		6 (100%)					1				5
Hospitals	6 (10%)	35 (58%)	19 (32%)	1	5		11	3	2	2	17
Senior doctors	128 (48%)	49 (18%)	89 (34%)	39	9	8	15	17	1	64	24
Charge nurses	106 (35%)	117 (38%)	82 (27%)	24	35	6	15	8	3	68	64
Allied health professionals	58 (38%)	40 (26%)	56 (36%)	14	11	2	7	10	1	32	21

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Availability of linen services -											
Networks											
Hospitals	6 (10%)	6 (10%)	48 (80%)	2	1			1	2	3	3
Senior doctors	71 (27%)	2 (1%)	193 (72%)	16	1	3		22		30	1
Charge nurses	125 (41%)	21 (7%)	159 (52%)	30	3	4	2	29	3	62	13
Allied health professionals	33 (21%)	1 (1%)	120 (78%)	11		1		6		15	1
Best practice guidelines -											
Networks		5 (83%)	1 (17%)								5
Hospitals	8 (14%)	26 (43%)	26 (43%)	4	4		3	2	3	2	16
Senior doctors	66 (25%)	60 (22%)	140 (53%)	15	11	7	19	8	4	36	26
Charge nurses	66 (22%)	136 (44%)	103 (34%)	17	36	5	20	9	6	35	74
Allied health professionals	31 (20%)	66 (43%)	57 (37%)	8	15	1	16	7	2	15	33
Cancellation/ re-scheduling of elective surgery -											
Networks		4 (67%)	2 (33%)								4
Hospitals	7 (12%)	6 (10%)	47 (78%)	1		3	1			3	5
Senior doctors	107 (40%)	39 (15%)	120 (45%)	30	8	7	10	20		50	21
Charge nurses	112 (37%)	53 (17%)	140 (46%)	28	13	6	13	13	1	65	26
Allied health professionals	38 (25%)	20 (13%)	96 (62%)	10	2	4	8	8		16	10
Cleanliness of hospital facilities -											
Networks	2 (33%)		4 (67%)							2	
Hospitals	26 (43%)	4 (7%)	30 (50%)	8		2		2	2	14	2
Senior doctors	189 (71%)	3 (1%)	74 (28%)	60	1	4		27		98	2
Charge nurses	231 (76%)	16 (5%)	58 (19%)	67	4	6	2	26		132	10
Allied health professionals	117 (76%)	2 (1%)	35 (23%)	37		4	2	19		57	
Discharge planning practices -											
Networks		6 (100%)					1				5
Hospitals	3 (5%)	43 (72%)	14 (23%)	1	6	1	9	1	2		26
Senior doctors	46 (17%)	155 (58%)	65 (25%)	10	43	6	29	7	6	23	77
Charge nurses	61 (20%)	190 (62%)	54 (18%)	17	54	3	28	3	4	38	104
Allied health professionals	42 (27%)	66 (43%)	46 (30%)	10	16	2	16	3	2	27	32

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Emergency waiting times -											
Networks		6 (100%)					1				5
Hospitals	5 (8%)	7 (12%)	48 (80%)		1		2	3		2	4
Senior doctors	90 (34%)	38 (14%)	138 (52%)	20	7	5	11	19	4	46	16
Charge nurses	96 (31%)	57 (19%)	152 (50%)	24	11	6	8	11	4	55	34
Allied health professionals	36 (23%)	26 (17%)	92 (60%)	9	2	5	9	8	1	14	14
Extent of ambulance by-pass -											
Networks		6 (100%)					1				5
Hospitals	4 (7%)	2 (3%)	54 (90%)		1			1		3	1
Senior doctors	56 (21%)	24 (9%)	186 (70%)	18	1	3	9	14	3	21	11
Charge nurses	63 (21%)	22 (7%)	220 (72%)	19	5	5	1	6	1	33	15
Allied health professionals	24 (16%)	14 (9%)	116 (75%)	7	3	4	3	6		7	8
Extent of ward closures -											
Networks		4 (67%)	2 (33%)				1				3
Hospitals	7 (12%)	6 (10%)	47 (78%)	2	1		1		1	5	3
Senior doctors	181 (68%)	8 (3%)	77 (29%)	59	1	8	2	22	1	92	4
Charge nurses	164 (54%)	15 (5%)	126 (41%)	53	3	4	1	16		91	11
Allied health professionals	82 (53%)	8 (5%)	64 (42%)	21		1	6	14		46	2
Follow-up of adverse incident reports -											
Networks		2 (33%)	4 (67%)								2
Hospitals	4 (7%)	13 (22%)	43 (71%)	3	2				1	1	10
Senior doctors	24 (9%)	43 (16%)	199 (75%)	5	10	3	11	6	3	10	19
Charge nurses	43 (14%)	89 (29%)	173 (57%)	11	23	5	13	7	10	20	43
Allied health professionals	17 (11%)	33 (21%)	104 (68%)	3	6		10	3	1	11	16
Follow-up of complaints about hospital care -											
Networks		4 (67%)	2 (33%)				1				3
Hospitals	9 (15%)	10 (17%)	41 (68%)	2	1	2	2	2	2	3	5
Senior doctors	29 (11%)	61 (23%)	176 (66%)	4	14	2	12	10	3	13	32
Charge nurses	36 (12%)	134 (44%)	135 (44%)	11	32	5	14	5	14	15	74
Allied health professionals	15 (10%)	55 (36%)	84 (54%)	2	10	2	12	4	3	7	30

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Frequency of inter-hospital transfers -											
Networks		2 (33%)	4 (67%)								2
Hospitals	9 (15%)	3 (5%)	48 (80%)	1		2		1	1	5	2
Senior doctors	83 (31%)	12 (5%)	171 (64%)	24	1	8	3	16	2	35	6
Charge nurses	80 (26%)	26 (9%)	199 (65%)	18	6	5	3	15	3	42	14
Allied health professionals	26 (17%)	10 (6%)	118 (77%)	6		3	5	3	2	14	3
Frequency of inter-ward transfers -											
Networks		2 (33%)	4 (67%)								2
Hospitals	6 (10%)	3 (5%)	51 (85%)	2				1	1	3	2
Senior doctors	89 (33%)	13 (5%)	164 (62%)	21	3	7	3	17	3	44	4
Charge nurses	118 (39%)	23 (8%)	164 (53%)	30	8	11	1	12		65	14
Allied health professionals	38 (25%)	10 (6%)	106 (69%)	10		3	6	6	2	19	2
Infection control -											
Networks		3 (50%)	3 (50%)								3
Hospitals	8 (13%)	16 (27%)	36 (60%)	3	2	2	1		3	3	10
Senior doctors	81 (30%)	29 (11%)	156 (59%)	18	7	6	6	18	1	39	15
Charge nurses	112 (37%)	50 (16%)	143 (47%)	28	7	1	12	24	5	59	26
Allied health professionals	38 (25%)	20 (13%)	96 (62%)	9	2		6	14	1	15	11
Inter-disciplinary co-operation -											
Networks		6					1				5
Hospitals	3 (5%)	30 (50%)	27 (45%)	1	7		6		1	2	16
Senior doctors	88 (33%)	41 (15%)	137 (52%)	21	3	9	13	19	3	39	22
Charge nurses	52 (17%)	142 (47%)	111 (36%)	14	48	2	19	7	4	29	71
Allied health professionals	34 (22%)	68 (44%)	52 (34%)	9	10		17	5	8	20	33

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Length of time patients are located on trolleys in the emergency department -											
Networks		5 (83%)	1 (17%)				1				4
Hospitals	6 (10%)	3 (5%)	51 (85%)			1	2	2		3	1
Senior doctors	99 (37%)	26 (10%)	141 (53%)	29	3	4	7	16	4	50	12
Charge nurses	108 (35%)	30 (10%)	167 (55%)	30	9	6	2	14	2	58	17
Allied health professionals	42 (27%)	4 (3%)	108 (70%)	13		5	2	7		17	2
Level of access to community services after hospitalisation -											
Networks	1 (17%)	3 (50%)	2 (33%)			1					3
Hospitals	11 (18%)	23 (38%)	26 (44%)	4	3		5	3		4	15
Senior doctors	88 (33%)	58 (22%)	120 (45%)	21	13	7	9	22	2	38	34
Charge nurses	118 (39%)	93 (30%)	94 (31%)	37	27	5	9	12	4	64	53
Allied health professionals	67 (43%)	27 (18%)	60 (39%)	19	3		7	11	3	37	14
Level of ancillary non-medical patient services e.g. health promotion and interpreter services -											
Networks	2 (33%)	1 (17%)	3 (50%)							2	1
Hospitals	12 (20%)	5 (8%)	43 (72%)	5	1	1	1			6	3
Senior doctors	153 (58%)	19 (7%)	94 (35%)	43	1	7	1	32	6	71	11
Charge nurses	125 (41%)	53 (17%)	127 (42%)	33	15	7	9	16	3	69	26
Allied health professionals	79 (51%)	15 (10%)	60 (39%)	26		5	3	11	1	37	11
Maintenance of equipment -											
Networks	2 (33%)		4 (67%)			1				1	
Hospitals	24 (40%)	3 (5%)	33 (55%)	5	2			3		16	1
Senior doctors	183 (69%)	4 (2%)	79 (29%)	55	1	8	2	31		89	1
Charge nurses	191 (63%)	20 (7%)	94 (30%)	47	4	5	2	32	2	107	12
Allied health professionals	72 (47%)	4 (3%)	78 (51%)	15		2	1	21		34	3

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Maintenance of hospital buildings -											
Networks	3 (50%)		3 (50%)			1				2	
Hospitals	30 (50%)	5 (8%)	25 (42%)	8	1	2		3	2	17	2
Senior doctors	182 (69%)	9 (3%)	75 (28%)	65	2	4	3	23		90	4
Charge nurses	204 (67%)	23 (8%)	78 (25%)	54	8	2	2	33		115	13
Allied health professionals	81 (53%)	7 (5%)	66 (42%)	20	1	3	1	19	2	39	3
Medical record documentation -											
Networks		5 (83%)	1 (17%)				1				4
Hospitals	8 (13%)	43 (72%)	9 (15%)	2	6	1	11	3	1	2	25
Senior doctors	79 (30%)	72 (27%)	115 (43%)	18	14	14	23	14	1	33	34
Charge nurses	59 (19%)	121 (40%)	125 (41%)	11	29	8	28	5	5	35	59
Allied health professionals	15 (10%)	67 (44%)	72 (46%)	1	10	4	21	1	2	9	34
Number of cleaning staff -											
Networks	1 (17%)	2 (33%)	3 (50%)				1			1	1
Hospitals	33 (55%)	2 (3%)	25 (42%)	6		1	1	7		19	1
Senior doctors	198 (74%)	2 (1%)	66 (25%)	57	1	9		28	1	104	
Charge nurses	246 (81%)	4 (1%)	55 (18%)	71	1	4	1	26	1	145	1
Allied health professionals	120 (78%)	1 (1%)	33 (21%)	39	1	5		14		62	
Patient access to allied health services -											
Networks	1 (17%)	2 (33%)	3 (50%)							1	2
Hospitals	21 (35%)	9 (15%)	30 (50%)	5	2	4	3	2		10	4
Senior doctors	174 (65%)	12 (5%)	80 (30%)	70	2	5	1	20		79	9
Charge nurses	148 (49%)	39 (13%)	118 (38%)	36	8	9	9	17	2	86	20
Allied health professionals	97 (63%)	9 (6%)	48 (31%)	26		5	3	18		48	6

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Patient access to critical care services -											
Networks	1 (17%)	2 (33%)	3 (50%)							1	2
Hospitals	4 (7%)	4 (7%)	52 (86%)		1	1	1	1	1	2	1
Senior doctors	86 (32%)	12 (5%)	168 (63%)	23	4	6	1	24		33	7
Charge nurses	85 (28%)	32 (10%)	188 (62%)	16	3	4	10	16	3	49	16
Allied health professionals	23 (15%)	9 (6%)	122 (79%)	4		3	4	8		8	5
Patient access to elective surgery -											
Networks		6 (100%)					1				5
Hospitals	10 (17%)	18 (30%)	32 (53%)	1	1	2	9	1	1	6	7
Senior doctors	110 (41%)	60 (23%)	96 (36%)	27	16	6	15	19	1	58	28
Charge nurses	77 (25%)	96 (31%)	132 (44%)	19	20	8	16	6	4	44	56
Allied health professionals	41 (27%)	20 (13%)	93 (60%)	11	2	5	6	8	1	17	11
Patient access to emergency services -											
Networks		5 (83%)	1 (17%)								5
Hospitals	5 (8%)	3 (5%)	52 (87%)	2		2	3			1	
Senior doctors	65 (24%)	18 (7%)	183 (69%)	14	3	5	8	16	2	30	5
Charge nurses	88 (29%)	43 (14%)	174 (57%)	21	8	4	10	13	3	50	22
Allied health professionals	33 (21%)	11 (7%)	110 (72%)	4		7	4	11	2	11	5
Patient admission practices -											
Networks		5 (83%)	1 (17%)				1				4
Hospitals	4 (7%)	30 (50%)	26 (43%)	2	5	1	5		2	1	18
Senior doctors	61 (23%)	98 (37%)	107 (40%)	17	26	10	19	10	6	24	47
Charge nurses	40 (13%)	161 (53%)	104 (34%)	6	39	4	25	6	8	24	89
Allied health professionals	12 (8%)	67 (44%)	75 (48%)	1	8	3	22	1	9	7	28

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Patient dependency/ severity of illness -											
Networks		2 (33%)	4 (67%)								2
Hospitals	2 (3%)	5 (8%)	53 (89%)	1			2	1			3
Senior doctors	75 (28%)	6 (2%)	185 (70%)	25	2	2	1	14	2	34	1
Charge nurses	152 (50%)	22 (7%)	131 (43%)	47	5	14	4	6	1	85	12
Allied health professionals	41 (27%)	5 (3%)	108 (70%)	17		4	3	2		18	2
Physical safety of patients -											
Networks		1 (17%)	5 (83%)								1
Hospitals	4 (7%)	5 (8%)	51 (85%)	2	2				1	2	2
Senior doctors	82 (31%)	8 (3%)	176 (66%)	13	4	3	2	27	1	39	1
Charge nurses	122 (40%)	29 (10%)	154 (50%)	30	7	8	5	23	3	61	14
Allied health professionals	42 (27%)	13 (8%)	99 (65%)	13		2	5	10	1	17	7
Pre-admission practices -											
Networks		5 (83%)	1 (17%)				1				4
Hospitals	4 (7%)	32 (53%)	24 (40%)	1	3	1	9	1	2	1	18
Senior doctors	29 (11%)	141 (53%)	96 (36%)	5	41	4	24	3	5	17	71
Charge nurses	16 (5%)	209 (69%)	80 (26%)	2	61	1	24	4	8	9	116
Allied health professionals	11 (7%)	81 (53%)	62 (40%)	1	21	4	15	1	6	5	39
Privacy for patients -											
Networks		1 (17%)	5 (83%)								1
Hospitals	8 (13%)	5 (8%)	47 (79%)	2	3		1	2		4	1
Senior doctors	112 (42%)	3 (1%)	151 (57%)	21	1	8	1	24	1	59	
Charge nurses	98 (32%)	27 (9%)	180 (59%)	18	8	6	5	15	2	59	12
Allied health professionals	40 (26%)	11 (7%)	103 (67%)	10	1	1	1	11	1	18	8
Restful atmosphere -											
Networks											
Hospitals	19 (32%)	5 (8%)	36 (60%)	6	3	2	1	1		10	1
Senior doctors	166 (62%)	6 (2%)	94 (36%)	52	2	12	4	18		84	
Charge nurses	175 (57%)	15 (5%)	115 (37%)	61	3	8	2	14	1	92	9
Allied health professionals	90 (58%)	3 (2%)	61 (40%)	33		5	1	9		43	2

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Service substitution -											
Networks	1 (17%)	4 (66%)	1 (17%)			1					4
Hospitals	9 (15%)	10 (17%)	41 (68%)	2	2	1	2	2		4	6
Senior doctors	68 (26%)	5 (2%)	193 (72%)	20		3		17	2	28	3
Charge nurses	86 (28%)	16 (5%)	203 (67%)	25	2	8	2	17	7	36	5
Allied health professionals	33 (21%)	3 (2%)	118 (77%)	8	1	4	1	8	1	13	
Unplanned readmissions -											
Networks	1 (17%)	1 (17%)	4 (66%)							1	1
Hospitals	13 (22%)	6 (10%)	41 (68%)	4	1	2	3	2		5	2
Senior doctors	134 (50%)	2 (1%)	130 (49%)	41		11	1	10		72	1
Charge nurses	146 (48%)	19 (6%)	140 (46%)	45	6	10	3	9	2	82	8
Allied health professionals	65 (42%)	5 (3%)	84 (55%)	23		5	3	7		30	2
Use of cheaper pharmaceuticals -											
Networks		2 (33%)	4 (67%)								2
Hospitals	4 (7%)	16 (27%)	40 (66%)		5	1	2		2	3	7
Senior doctors	77 (29%)	52 (20%)	137 (51%)	25	19	6	3	8	7	38	23
Charge nurses	84 (28%)	70 (23%)	151 (49%)	22	24	3	4	12	2	47	40
Allied health professionals	29 (19%)	20 (13%)	105 (68%)	6	6	3	4	5		15	10
Waiting time for attendance by doctors -											
Networks		3 (50%)	3 (50%)								3
Hospitals	7 (12%)	3 (5%)	50 (83%)	2		1	2	1	1	3	
Senior doctors	108 (41%)	13 (5%)	145 (54%)	25	5	5	4	23	1	55	3
Charge nurses	177 (58%)	15 (5%)	113 (37%)	58	4	7	3	17	1	95	7
Allied health professionals	56 (36%)	5 (3%)	93 (61%)	19		3	3	11		23	2
Waiting time for attendance by nurses -											
Networks	1 (17%)	1 (17%)	4 (66%)							1	1
Hospitals	22 (37%)	1 (2%)	37 (61%)	7		3	1			12	
Senior doctors	133 (50%)	9 (3%)	124 (47%)	32	3	5	2	27	1	69	3
Charge nurses	210 (69%)	14 (5%)	81 (26%)	72	4	7	4	10	1	121	5
Allied health professionals	70 (45%)	1 (1%)	83 (54%)	28		1	1	14		27	

Please indicate what effect, if any, each of the following factors, if influenced by the government reforms, have had on the quality of hospital care - *continued*

	Total respondents			Deteriorated/Improved							
				Influenced by both casemix and micro-economic reforms		Influenced by casemix funding only		Influenced by micro-economic reform only		Cannot separate effects	
	Deteriorated	Improved	Other (a)	Det	Imp	Det	Imp	Det	Imp	Det	Imp
Work demands on doctors -											
Networks	1 (17%)		5 (83%)			1					
Hospitals	20 (33%)	3 (5%)	37 (62%)	7		2	1	1		10	2
Senior doctors	233 (88%)	3 (1%)	30 (11%)	86	1	12		11		124	2
Charge nurses	240 (79%)	5 (2%)	60 (19%)	81	1	11		9		139	4
Allied health professionals	91 (59%)	2 (1%)	61 (40%)	35		6	1	5		45	1
Work demands on nurses -											
Networks	2 (33%)		4 (67%)			1				1	
Hospitals	32 (53%)	3 (5%)	25 (42%)	10		1	1	2		19	2
Senior doctors	225 (85%)	2 (1%)	39 (14%)	85	1	9		14		117	1
Charge nurses	276 (91%)	4 (1%)	25 (8%)	96	1	6		10		164	3
Allied health professionals	104 (68%)	3 (2%)	47 (30%)	41		5	1	6		52	2

(a) "Other" comprises either "No effect", "No response", "Don't know" or "Not applicable". In the majority of cases, between 40% and 80% of network and hospital Chief Executives claimed that the particular factor had "No effect" on quality of care.

Note: Responses from networks and hospitals have been provided by the Chief Executive Officer of each organisation.

Appendix C

Summary of audit's suggestions for improvement

A large number of suggestions for improvement are contained throughout the Report. A listing of the applicable references is summarised in the following table.

SUMMARY OF
AUDIT'S SUGGESTIONS FOR IMPROVEMENT

Report Reference	*Paragraph number*	*Suggestion*
Part 4. Quality of care	4.21	Identify areas of greatest risk to patient care
	4.37	Examine the assertions made by clinicians about quality
	4.70	Release uniform accreditation information
	4.72	Encourage development of clinical pathways
	4.89	Extend patient satisfaction surveys to waiting lists
	4.90	Improve data standards for adverse events
	4.91	Include E-codes relating to adverse events as an area for study in coding audits
	4.111	Review the 1994 initiative to reduce rural medical officer fees
	4.125	Report consolidated quality of care information
	4.138	Reduce avoidable readmissions to improve efficiency
	4.140	Introduce a common unique patient identifier e.g. to improve data for unplanned readmission
Part 5. Health outcomes	5.8	Monitor health outcomes and the results of health status surveys
	5.9	Pilot the use of quality of life/outcome measures
	5.11	Establish a unified approach to monitoring health outcomes
Part 6. Equity of access to hospital services	6.20	Investigate the management of waiting lists
	6.37	Investigate the appropriateness of patient categorisation
	6.38	Publish waiting times per specialty
	6.60	Review the rural core specialist services grant
	6.66	Monitor trends in outpatient access to hospital services
	6.68	Establish/monitor level of access for disadvantaged groups
	6.72	Review throughput targets in view of increased complexity
	6.73	Introduce affirmative action statements for hospitals
	6.74	In depth analysis of severity of illness and case payments
	6.83	Monitor ward and bed closures in terms of access issues
	6.94	Monitor utilisation rates for privately funded patients
Part 7. Efficiency gains	7.26	Emphasise the quality of hospital services
	7.49	Encourage service substitution through the formula
	7.50	Encourage greater flexibility in service provision
	7.54	Facilitate appropriate growth in Same Day service substitution
	7.66	Integrate funding between departmental divisions
	7.67	Review divisional funding arrangements
	7.68	Develop a common patient identifier to track patients
	7.87	Use of alternative liquidity ratios

SUMMARY OF
AUDIT'S SUGGESTIONS FOR IMPROVEMENT - *continued*

Report Reference	*Paragraph number*	*Suggestion*
Part 8. Casemix formula	8.31	Release WIES conversion software in time for issue of policy
	8.36	Use technical bulletins to explain policy initiatives
	8.46	Review terminology and purpose for fixed overhead grant
	8.49	Review throughput targets to address equity of access
	8.50	Convert formulation of targets to a population basis
	8.56	Review training and development grant - effectiveness of
	8.57	Address transparency issues e.g. calculation of total unit rate
	8.58	Issue technical bulletins to underpin policy adjustments
	8.77	Review financial impacts for disadvantaged hospitals
	8.84	Review Same Day targets to improve access to services
	8.89	Improve tender procedures and service specifications
	8.109	Review issue of departmental ownership of assets
	8.112	Consider the key criteria for the sale of public infrastructure
	8.116	Review assets and adequacy of capital funding
	8.117	Establish additional performance indicators for capital
	8.125	Integrate health services to allow whole episodes of care
	8.157	Encourage cost modelling in small hospitals and generate interest in software development for hospitals
	8.169	Determine prosthesis costs for cost weights studies
	8.179	Include cost weight adjustment rationale in *Guidelines*
	8.180	Maintain strategies to eradicate the "Millennium Bug"
	8.192	Introduce standards for medical records and management
Part 9. Secondary impacts	9.36	Monitor the impact of casemix on the non-hospital sector
	9.47	Purchase agreed "packages of care"
Part 10. Objectives and roles	10.28	Improve service planning in rural areas
	10.32	Upgrade purchasing role through a range of strategies
	10.37	Introduce qualitative indicators in health service agreements
	10.90	Reassess impact of competitive neutrality principles
	10.96	Establish framework for competition and service integration
	10.107	Clarify the role of metropolitan regions in acute health
	10.123	Develop educational strategies for casemix
Part 11. Initiatives and strategies for improvement	11.31	Develop a more comprehensive set of performance indicators for inclusion in network and hospital patient charters

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