VICTORIA

Auditor General
Victoria

# Nurse work force planning

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AUDITOR GENERAL
VICTORIA

The Hon. B.A. Chamberlain MLC
President
Legislative Council
Parliament House
MELBOURNE

The Hon. A. Andrianopoulos MLA
Speaker
Legislative Assembly
Parliament House
MELBOURNE

Sir

Under the provisions of section 16 of the *Audit Act* 1994, I transmit my performance audit report on *Nurse work force planning*.

Yours faithfully

J.W. CAMERON
*Auditor-General*

30 May 2002

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# Foreword

Nurses constitute the largest work force in the public hospital system. The availability of nurses is vital to the effective delivery of health services. There is a current worldwide shortage of nurses throughout developed countries, and Victoria is no exception to this. The Government's launch of the Victorian Recruitment and Retention Strategy in September 2000 was aimed at progressively addressing these shortfalls through funding of specific initiatives.

The existing sources of supply of nurses are either declining or not significantly increasing, and there is competition among health care providers for the services of existing nurses. Hence, greater attention needs to be given by hospitals to providing working environments that encourage people to take up nursing as a career, and to retain nurses within the public hospital system.

Work force planning within the Department of Human Services provides a foundation for the development and targeting of any future recruitment and retention initiatives. The Department's work force planning has been hampered by unreliable and poor quality information on the nurse work force.

Recent initiatives by the Government to impose nurse:patient ratios and cap usage of agency nurses will have a significant impact on the nursing work force and on hospitals. The extent of these impacts has not been able to be determined due to their recency and poor data collection across the sector. It was pleasing to note that the Department has recently assigned a high priority to addressing data deficiencies.

It is my belief that this report covers a topic of critical importance and provides significant benefits to Parliament, the Department of Human Services, vital stakeholders such as universities and public hospitals, and the general community.

J.W. CAMERON
*Auditor-General*

30 May 2002

Part 1

# Executive summary

## BACKGROUND

**1.1** Payroll data supplied by the Department of Human Services (DHS) as at February 2002 shows that approximately 24 600 equivalent full-time nurses were employed in Victorian public hospitals. Approximately 80 per cent of nurses working in acute public hospitals are Division 1 qualified[1]. As at June 2001, there were approximately 71 000 registered Division 1 and 2 nurses in Victoria, with large numbers of these nurses employed in private hospitals and aged care sectors.

**1.2** Along with most other developed economies, Victoria has had difficulty in recruiting and retaining nurses within the hospital system.

**1.3** On 31 August 2000, the Australian Industrial Relations Commission (AIRC) ratified the nurse Enterprise Bargaining Agreement (EBA). Key provisions in the EBA included the introduction of mandatory nurse-to-patient ratios and improvements to pay and working conditions for nurses.

**1.4** The Victorian Government commissioned a major study to consider a range of strategies for improving recruitment and retention of nurses in Victorian public hospitals through reviews of local, national and international experience. The Nurse Recruitment and Retention Committee (NRRC) tabled its final report in May 2001. Some of the Committee's recommendations were included in the AIRC's arbitration decision.

**1.5** Based largely on the EBA and the NRRC's interim report of April 2000, the Victorian Government launched the Victorian Nurse Recruitment and Retention Strategy in September 2000. The Strategy included 10 nurse work force initiatives overseen by the Nurse Policy Branch of DHS.

**1.6** The Treasurer's Speech in relation to the 2002-03 State Budget indicated that an additional $464 million would be provided over 4 years to enable public hospitals to treat 30 000 more patients and employ 700 extra nurses and health workers.

## AUDIT OBJECTIVES AND SCOPE

**1.7** The overall objective of this audit was to determine whether effective and efficient arrangements are in place for planning and managing the supply of, and demand for, appropriately qualified nurses across Victoria.

**1.8** The audit assessed:

- whether DHS is implementing appropriate actions to improve nurse work force planning processes;
- the effectiveness and efficiency of public hospital nurse work force planning and management at the local level;

[1] Australian Institute of Health and Welfare unpublished data.

- the effectiveness and efficiency of initiatives to encourage appropriate recruitment and retention of nurses; and
- effectiveness and efficiency of linkages between DHS, hospitals and nurse education providers in relation to work force planning.

**1.9** This audit focused on acute public hospitals as they are the major providers of health services in Victoria. The audit included coverage of:

- DHS as the Statewide health policy maker and planner;
- acute public hospitals as employers of nurses; and
- universities as the suppliers of Division 1 nurse education and Vocational Education and Training (VET) providers as the suppliers of Division 2 nurse education.

## AUDIT CONCLUSION

**1.10** We concluded that considerable effort and resources have been devoted to addressing the nursing shortage within the public hospital system through the Nurse Recruitment and Retention Strategy. This has resulted in an increase in the number of nursing staff within public hospitals and in hard-to-fill nursing specialties. However, the benefits from initiatives such as Refresher and Re-entry Programs will reduce over time as the pool of ex-nurses, both registered and unregistered, diminishes.

**1.11** Nurse registration data for 1995 and 2001 reveals an ageing work force with a significant increase in the proportion of nurses over 40 years. There has been a heightened level of interest in the nursing profession as demonstrated by increased applicants for nursing courses. However, the total number of students places in nursing at universities has declined marginally in recent years, with a slight increase in the number of full-time students.

**1.12** With sources of the supply of nurses either declining or not markedly increasing, the role of hospitals in nurse retention becomes critical. Hospitals need to create an attractive working environment for nurses. Departmental incentives may need to be considered to encourage hospitals to achieve high standards of performance in this area.

**1.13** While the Nurse Recruitment and Retention Strategy has been successful in the short-term, ensuring a sustainable supply of nurses that meets demand in the longer-term will require responses to:

- mismatches in supply and demand for nurses;
- the changing nature of nursing work and the scope of nursing practice; and
- changing nursing skill mix requirements.

**1.14** In relation to each of our audit objectives, we concluded that:

- For the latter part of the 1990s insufficient attention was paid by DHS to the emerging shortages in nursing. While valid reasons existed for delays in conducting nurse work force studies such as the implementation of the 2000 EBA, DHS is not in a position to determine current nursing shortfalls by specialty and geographic location or to be able to forecast nurse demand and supply. DHS has indicated that addressing this issue has recently been confirmed as a major priority area; ***(paras 5.3 to 5.8)***
- Work force planning at the hospital level was generally limited, with little forecasting of work force requirements beyond the following year; ***(para. 6.32)***
- While the Nurse Recruitment and Retention Strategy has resulted in additional nurses entering the public hospital system, a full assessment of the Strategy's impact was hampered by limitations in relevant data; ***(para. 7.39)***
- It is too soon to determine the impact of restrictions introduced by DHS to limit nurse agency usage and costs, given that nurse demand fluctuates seasonally and the effects of increased nurse demand over winter are yet to be felt; and ***(paras 7.73 and 7.74)***
- There were poor linkages between DHS, education providers and public hospitals in relation to nurse work force planning. ***(para. 8.16)***

## AUDIT FINDINGS

### Department of Human Services' work force planning

**1.15** DHS is now placing greater attention to nurse work force issues. However, there was a lack of reliable and up-to-date data on the nurse work force to underpin DHS's work force planning processes. The NRRC found that *"Currently the Department of Human Services has no consistent data on the number of nurses working in the public hospital system"*. DHS has commenced data collection to address these gaps. ***(para. 5.9)***

**1.16** We consider it is now timely to conduct a number of limited nurse work force studies including the collection of new categories of data such as nurse attrition rates. Such collections and studies could ultimately provide a more comprehensive understanding of the nurse labour market and feed into a large-scale study, the outcomes of which would influence the development of focused work force recruitment and retention initiatives. ***(para. 5.37)***

### Hospital work force planning

**1.17** Of the 17 hospitals visited during the audit, only a third had a work force plan and half had a forecasting model in place. The absence of key work force planning data such as attrition rates reduced the effectiveness of forecasting models. ***(paras 6.31 to 6.33)***

**1.18** Systems supporting work force planning such as rostering systems were of variable quality with a number hospitals still working with paper-based systems that involved substantial duplication of effort. Less than 20 per cent of systems could automatically import payroll or human resource details, and only a quarter could automatically provide work force management data such as overtime usage. In addition, the majority of hospitals had either recently changed or planned to change payroll systems. Hospitals were experiencing major difficulties with the performance of these new systems. ***(paras 6.36 and 6.37)***

**1.19** Management reporting on recruitment and retention issues was not extensive and generally of limited value. Two-thirds of the hospitals reviewed had no reporting on nurse retention and, of those who reported, most believed the reporting was not timely. ***(para. 6.40)***

## Recruitment and retention initiatives

**1.20** We examined in detail 3 DHS initiatives, namely, the provision of Refresher and Re-entry Programs, Postgraduate Scholarships and Continuing Nurse Education Programs. These programs were successful in quickly addressing, in the short-term, nurse recruitment and retention issues. ***(paras 7.18, 7.30 and 7.34)***

**1.21** Management of these programs could have been enhanced through improved data collection for evaluation purposes and communication and feedback mechanisms to hospitals and universities. In relation to the Refresher and Re-entry Programs, DHS should develop guidelines and funding arrangements to ensure that:

- there is a clear commitment by hospitals to fund places for nurses who complete these programs; and ***(para. 7.18)***
- nurses agree to accept positions within the public hospital system after course completion for a specified period. ***(para. 7.18)***

## Restrictions on agency usage

**1.22** The restrictions on the use of private sector agency staff in public hospitals, which took effect from 4 April 2002, were also examined. Our audit confirmed the recent and substantial increase in agency costs within the public hospital system that preceded the implementation of this policy. ***(para. 7.49)***

**1.23** Prior to the introduction of these changes to the engagement of agency staff, DHS was not in possession of regular Statewide data on trends in agency usage and costs. DHS has requested that hospitals report on the outcomes from these changes. These reporting arrangements should be supplemented by additional details such as shortages in hard-to-fill specialties. ***(paras 7.68 and 7.69)***

## Linkages between the key stakeholders

**1.24** There was regular liaison between key stakeholders such as DHS and hospitals, and between individual hospitals and universities, on nurse work force-related issues, although not directly related to work force planning. ***(paras 8.9 and 8.12)***

**1.25** Our audit found a need for Statewide co-ordination and decision-making arrangements between the university and VET sectors, hospitals and DHS on overall nurse supply and demand issues. Consideration could also be given to extending representation to other sectors such as the private hospital system. ***(paras 8.18 and 8.21)***

## RECOMMENDATIONS

**1.26** A full listing of recommendations contained in this report is set out below.

| *Report reference* | *Paragraph number* | *Recommendation* |
|---|---|---|
| **DHS nurse work force planning** | 5.21 | We recommend that DHS:<br>• conducts a Statewide review of the status of the implementation of recently introduced hospital payroll systems in terms of their capacity to meet operational and work force planning requirements; and<br>• retains the option of publishing the Victorian results of the Nurse Labour Force Survey as soon as they become available, consistent with yet to be published national results, if Australian Institute of Health and Welfare data publication continues to be subject to time delays. |
| | 5.26 | We recommend that DHS initiate discussions with representatives of key non-public sector employers with a view to progressing the collection and reporting of comprehensive nurse work force data. |
| | 5.29 | We recommend that data collected for DHS on the supply of nurses be extended to include a longer time period to allow trend analysis, the destination of graduates and other key demographic characteristics such as age profiles of graduates. |
| | 5.33 | We recommend that DHS, in partnership with hospitals:<br>• agree on an approach to address information requirements and data needs for work force planning and monitoring;<br>• assign clear responsibilities, milestones and resourcing to undertake and manage these tasks; and<br>• ensure appropriate safeguards over data reliability and reporting requirements are built into the data collection process. |
| | 5.39 | We recommend that:<br>• a timetable for undertaking a comprehensive nurse work force study be agreed by DHS, including key actions that are required to meet milestones; and<br>• in the short-term, agreement is reached on the conduct of a limited number of small-scale studies, the results of which should be considered as part of a more comprehensive nurse work force study. |
| | 5.45 | We recommend that DHS undertake a formal assessment of the risks associated with its work force planning arrangements to ensure the development of a robust forecasting model and a comprehensive approach to future nurse work force studies. |

## RECOMMENDATIONS - *continued*

| *Report reference* | *Paragraph number* | *Recommendation* |
|---|---|---|
| **Nurse work force planning by hospitals** | 6.41 | We recommend that<br>• Hospitals give a higher priority to introducing improved work force planning and associated system support; and<br>• DHS, in consultation with hospitals, develop a pilot program at selected sites for various categories of hospitals to upgrade the standard of hospital work force planning. This would include the provision of standard nurse work force data definitions and adequate system support particularly to allow electronic transfer of data from hospitals to DHS. |
| **Initiatives for nurse recruitment and retention** | 7.45 | We recommend that DHS:<br>• directly link the funding of future Refresher and Re-entry Program places to vacancies or contract positions within public facilities;<br>• expand existing retention initiatives to provide additional career opportunities for non-managerial generalist nurses;<br>• improve communication on forthcoming initiatives and feedback on the outcome of funding deliberations; and<br>• introduce data collection and monitoring strategies for evaluation purposes. |
| | 7.75 | We recommend that broader hospital system outcome measures be supplemented with additional agency specific indicators in order to better quantify the impact of restrictions on nurse agency use. |
| | 7.89 | We recommend that DHS develop a strategic policy framework which includes:<br>• communicating a clear definition of its roles and responsibilities vis-à-vis hospitals;<br>• introducing benchmarking of hospitals' performance on nurse recruitment and retention covering both quantitative and qualitative indicators;<br>• introducing policy initiatives that recognise and reward best practice in this area;<br>• sponsoring research into defining nursing-related work and associated technical requirements and competencies; and<br>• engaging with other key stakeholders in addressing these issues. |
| **Communication and co-ordination between key stakeholders** | 8.24 | We recommend that:<br>• co-ordination arrangements be initially established by DHS linking key stakeholders involved in nurse supply and demand for the public hospital sector;<br>• the potential to expand co-ordination arrangements to include coverage of major non-public sector nurse employers should be explored; and<br>• regular feedback be provided to interested parties such as statements on areas of nursing shortages. |

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

*Overall, the Department of Human Services welcomes the report into nurse work force planning and supports the findings and recommendations of the performance audit undertaken by the Auditor-General. Health work force planning has been a problem in Victoria for many years, due to a combination of factors - principally a lack of resources, fragmented effort, and poor and untimely data - many of which are identified by the audit. In the health field the Department does not have the same degree of control over the work force as is enjoyed, for example, by the Department of Education, Employment and Training with regard to teachers. Work force planning is inherently a difficult task: planners typically do not directly control many variables, there are long lead times and outcomes can never be precise. Looming shortages in many key health professions, including nursing, have resulted in significant efforts being made to redress the situation, as the audit notes.*

*The audit highlights 3 major issues:*

***Problems with data, from a wide range of sources***

*The data available are untimely, often contradictory and incomplete. This is a national problem and one which Victoria is playing a key role in resolving. Improved data systems in hospitals, which the audit recommends, are a necessary precursor to more effective work force planning but will require substantial investment. The Department has undertaken several initiatives to improve the situation, but acknowledges that there is some distance to go. The situation with regard to data from education, immigration and regulatory sources is also not completely satisfactory and efforts to improve all 3 continue.*

***Retention***

*The audit warns that the pool of nurses who are registered but not working as nurses (either because they are not working, or working in a non-nursing role) has fallen significantly in the past few years. The audit argues, in effect, that we have used up a major portion of our reserves, and the time has come to increase the number of nurses being educated. The Department agrees, but notes that the Commonwealth is responsible for funding university education. The State in 2001 doubled the number of places for Division 2 nurse students in the Vocational Education and Training system.*

*There is a need for a substantial increase in the number of Victorian undergraduate places for nurses funded by the Commonwealth. As there would be some difficulties in expanding the number of places quickly, principally in recruiting staff, providing infrastructure and making available sufficient clinical experience, such an increase may need to be phased in over 2 years.*

*The gap between supply and demand will be the subject of a major study which will be undertaken by the Department in the second half of 2002. The situation is complicated by large but probably temporary swings in recruitment from overseas, re-registrations, re-entry to the work force and the expansion of the work force that has occurred in the past 2 years. Modelling, sensitivity analysis and a preliminary review of available data show that the most critical factor is the attrition rate from the existing work force. In a sense the Department's study must determine the underlying attrition rate that will have been obscured by the temporary conditions reported above. This data element is particularly difficult to capture, the only known studies being inadequate for the purpose. The Department notes that in the teacher work force, which has some demographic similarities to the nurse workforce, the underlying attrition rate is about 5 per cent but is predicted to be 8 per cent annually by 2009.*

*In these circumstances of uncertain supply and growing demand, retention becomes a major issue. The Department has, in the past 18 months, worked with health services to improve retention practices.*

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

***The need for new structures to link regulators, education providers, funders, users and planners***

*The audit calls for the establishment of new structures to provide information flows and feedback loops between users and suppliers of the nurse work force, with other relevant stakeholders and the Department agrees. Funding of universities is a Commonwealth responsibility, and the Department has taken an active role in advising both current national reviews of nursing education and related matters. However, it is clear some issues (including the relationship between under- and post-graduate numbers, course content, funding for clinical supervision) are also primarily national issues, which the State has only a limited capacity to influence. The State is responsible for issues such as mentoring, effective retention policies, the nursing skills mix, regulation and accreditation.*

*Some issues may require the State or Commonwealth to work together with other, independent stakeholders to secure desired outcomes.*

*The Department has already taken some steps to improve linkages with stakeholders and will establish new structures to further improve the situation.*

***Other comments***

*Work force issues have been given increased focus in the Department of Human Services in recent years through the creation of the Nurse Policy Branch and its work on recruitment and retention matters, and recognition of work force issues as a Flagship Project. The latter gives work force matters a status which allocates responsibility to a single senior executive, who is charged with bringing together the various strands of work being undertaken into a single coherent whole. Additional resources will be provided to assist this process: already work has been undertaken on a broad framework for work force studies, and detailed work on the maternal and child health work force has begun.*

*The Department believes that the focus on nurse agency use in hospitals has had a number of positive impacts. It has ensured greater value for money from casual staff employment. It has encouraged hospitals to think creatively about how to offer greater flexibility and better working conditions to their existing permanent nursing staff, and to greatly expand their nurse banks. It has also encouraged hospitals to develop more sophisticated work force management processes and systems, with some promising results.*

*The audit examines experience in nurse workforce management in several other countries quite extensively. It should be noted that Victoria's achievement, proportionately, is significantly greater than in any other jurisdiction, especially in relation to the funds spent.*

*The Department agrees that retention is more cost-effective than recruitment and has encouraged hospitals to improve their retention efforts by increasing flexibility, creating their own nurse banks, offering refresher coursers, subsidising post-graduate education in specialties that are in short supply and other measures. However, the gender/age composition of the nursing work force will continue to have a major impact on retention.*

*It is likely that one factor accounting for increased migration of nurses from other States and countries to Victoria is the increased remuneration accessible as a result of recent industrial decisions. The current disparity of nurse wages between Australian jurisdictions in favour of Victoria is, however, unlikely to be sustained. As other States catch up, in relative terms, it is likely net inter-State migration, currently at a high level, will fall. Similarly, it would be unwise to assume high levels of international migration will be sustained.*

*Although a nurse work force supply and demand study will not be completed until the end of 2002, the Department believes the growth in demand for nurses over the next few years is likely to be approximately 3 per cent annually, due to rapid expansion in aged care places, and then by 2006 resume a slightly lower long-term growth rate of around 2.1 per cent annually.*

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

*The data on vacancies in Part 6 of the report is interesting and broadly comparable with work done in 2000 and 2001 by the Department. A vacancy rate of just over 5 per cent is in no way unusual. Work is continuing on a new dataset which will provide the Department with more precise data by specialty, which can inform decisions about priority areas for funding of post-graduate education scholarships.*

*One of the issues examined is the question of how hospitals are responding to shortages of nurses. Possible strategies in some situations include substitution by nurses who may not have pertinent specialist training, or Division 2 nurses for Division 1 nurses. However, all nurses in an area do not necessarily need to have specialist training. For example, the professional association representing critical care nurses agrees that not all nurses working in an intensive care unit require post-graduate qualifications in critical care. In Victoria, relatively few Division 2 nurses are employed in public acute hospitals, although they form the bulk of the nursing work force in the sub-acute (largely geriatric) care and rehabilitation system. Division 2 nurses only substitute for Division 1 nurses in acute hospitals where this is judged appropriate in view of their skills and training.*

*The Department has been collecting daily information from all metropolitan health services and the 3 largest non-metropolitan health services since the nurse agency directive was circulated in early March 2002. Hospitals have been asked to report only those incidents that are directly attributable to the nurse agency directive and the Department has made significant efforts to ensure the accuracy of this data collection. In addition, close monitoring of the regular daily ambulance bypass system, the fortnightly reports of payroll data, and the monthly reports of activity and financial status are supplementing the new data collection. Some of the information the audit suggests should also be collected will become available once the new Nurse Workforce Minimum Data Set is implemented, over the next few months.*

*The daily reporting system shows that the total casual work force has been stable from early March to early May in the metropolitan health services plus Ballarat, Bendigo and Barwon Health, at about 1 000 shifts a day. The fall in the number of agency staff being used has been closely matched by an increase in nurse bank utilisation. Data collected from health services by the Department indicate that more than 1 000 nurses have joined public hospital nurse banks since the start of 2002.*

*The dynamics of the nurse agency work force are not as clear as implied by the discussion of the results of a survey conducted on behalf of a nurse agency. The sample was small and limited, and the results would need to be tested be a follow-up survey of the same individuals to determine whether their subsequent behaviour mirrored their expressed intentions.*

*Analysis of trends in hospital nurse EFT monthly figures over the past 5 years shows that there are distinct and predictable peaks and troughs. These are linked to hospital activity, which is similarly cyclical for reasons linked to staff availability and patient demand.*

*With the introduction of fixed nurse-to-patient ratios in most areas of public hospitals, activity would decrease if hospitals were unable to recruit sufficient staff to meet clinical need. By improving their human resources management, making hospital employment more attractive, by expanding the size of their nurse banks and other measures, hospitals should, however, be able to meet normal seasonal variations in demand in 2002.*

# Part 2

# Background

## VICTORIAN NURSE WORK FORCE

**2.1** There were approximately 71 000 nurses registered by the Nurses Board of Victoria (NBV) as at 30 June 2001. Within Victoria, nurses are primarily categorised as either Division 1 or Division 2, based on their level of education. Of the 71 000 nurses registered in June 2001, approximately 54 000 were Division 1, and 17 000 Division 2. According to the most recently available figures on the employment status of registered nurses, 5 751 nurses were registered but not working in nursing in 1999.[1]

**2.2** Australian Institute of Health and Welfare statistics from 1999 indicate that approximately 28 000 Division 1 and 2 nurses were working in the Victorian public hospital system at that time.

## GOVERNMENT AND DEPARTMENTAL REVIEWS

**2.3** Victoria, along with other States of Australia and most countries in the developed world, has a shortage of nurses. In 2000, the State Government commissioned a major review to examine an appropriate response to the nursing shortage. The Victorian Nurse Recruitment and Retention Committee (NRRC) completed its final report in May 2001. This report recommended a number of strategies, including the provision of Refresher and Re-entry training for Division 1 and 2 nurses.

**2.4** Prior to the NRRC report, the 2000 Enterprise Bargaining Agreement (EBA) provided for improvements in pay and conditions for nurses working in acute health public hospitals and other public health services. Two key areas of the EBA included:

- A 12.5 per cent increase in wages for Division 1 and 2 nurses. The first payment of 3.5 per cent occurred in October 2000 followed by 3 increments of 3 per cent in March 2001, 2002 and 2003; and
- The introduction of mandatory nurse-to-patient ratios. For large metropolitan hospitals, the ratio was 1 to 4 for morning and afternoon shifts and 1 to 8 for night shifts.

**2.5** At a national level, there have been a number of major reviews:

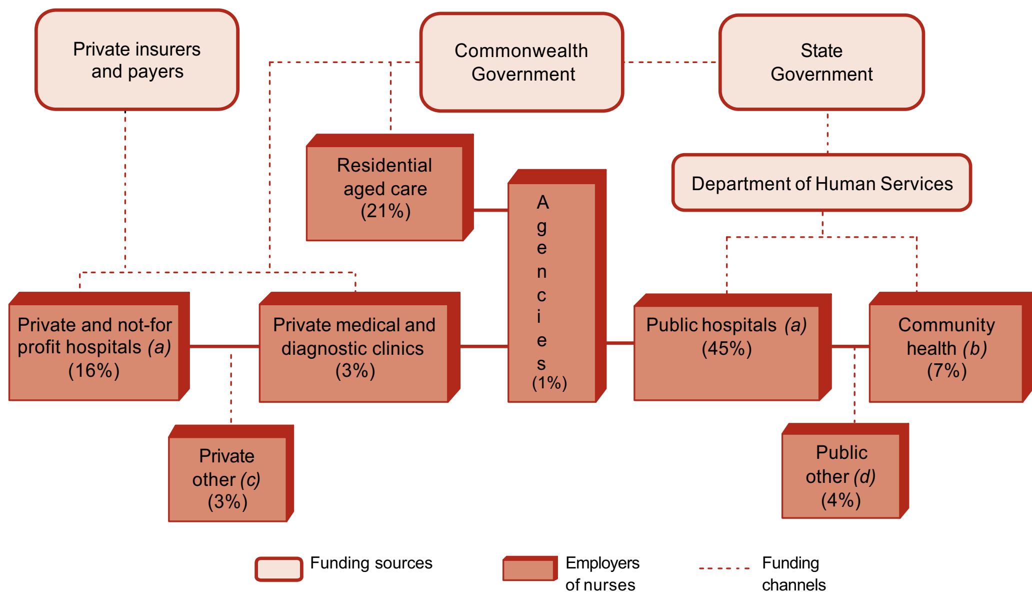
- the Senate Community Affairs References Committee, Inquiry into Nursing, expected to report later in 2002 (submission made by the Victorian Government); and
- the National Review of Nursing Education by the Commonwealth Departments of Education Science and Training, and Health and Aged Care, due to report in mid-2002.

[1] Australian Institute of Health and Welfare unpublished data.

## EMPLOYERS OF NURSES

**2.6** In Victoria, Division 1 and 2 nurses are employed in a variety of health care settings. These include acute hospitals, residential aged care facilities and community health services. Nursing agencies also supply casual nurses to these health services. Chart 2A illustrates the range of health care sectors, funding arrangements and the proportion of nurses working within various sectors.

**CHART 2A**
**VICTORIAN NURSE WORK FORCE EMPLOYMENT, 1999**




(a) Public and private hospitals also include psychiatric hospitals.
(b) Community health includes school, developmental disability, day centre and correctional nurses.
(c) Private other includes nurses working in private industry, private day centres and private education.
(d) Public other includes nurses working in tertiary education and the defence forces, which are Commonwealth-funded.

*Source:* Victorian Auditor-General's Office, 2002 based on Australian Institute of Health and Welfare 1999: Nursing labour force unpublished data.

## VICTORIAN PUBLIC HOSPITAL SYSTEM - AN OVERVIEW

**2.7** Through the Australian Health Care Agreement, the Commonwealth Government funds the State Government to provide public health services. In Victoria, the Department of Human Services (DHS) administers these funds to public health care agencies and implements State Government health policy. The Commonwealth Government also subsidises and regulates residential aged care, however, the care providers and residents contribute to capital costs. Providers include private individuals or companies, not-for-profit organisations and the State Government.

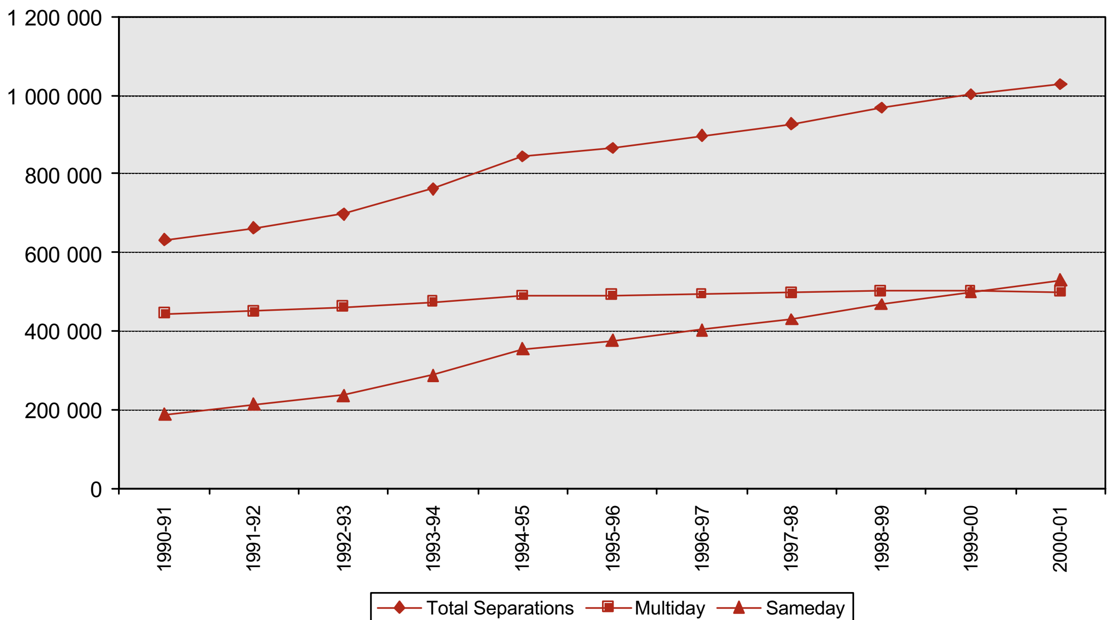
**2.8** There are 92 public hospitals in Victoria providing acute inpatient care. These are organised into 13 metropolitan health services covering 31 hospital sites and 6 categories of regional and rural hospitals classified on the level of patient throughput. Public hospitals operate under the *Health Services Act* 1988 as incorporated public statutory authorities. They are overseen by Boards appointed by the Governor in Council and, for Metropolitan Health Services, on the recommendation of the Minister for Health. They operate with high levels of autonomy in the day-to-day management of their work force.

### Patient numbers

**2.9** In the last 10 years, there has been a 63 per cent increase in the number of patients treated in Victoria's public health system[2], particularly due to the growth in same-day hospitalisations. Chart 2B illustrates the increase in patients treated over the last 10 years. Separations refer to patient discharge or death.

[2] Victorian Admitted Episodes Dataset (VAED) 25 February, 2002

**CHART 2B**
**PATIENT SEPARATIONS**

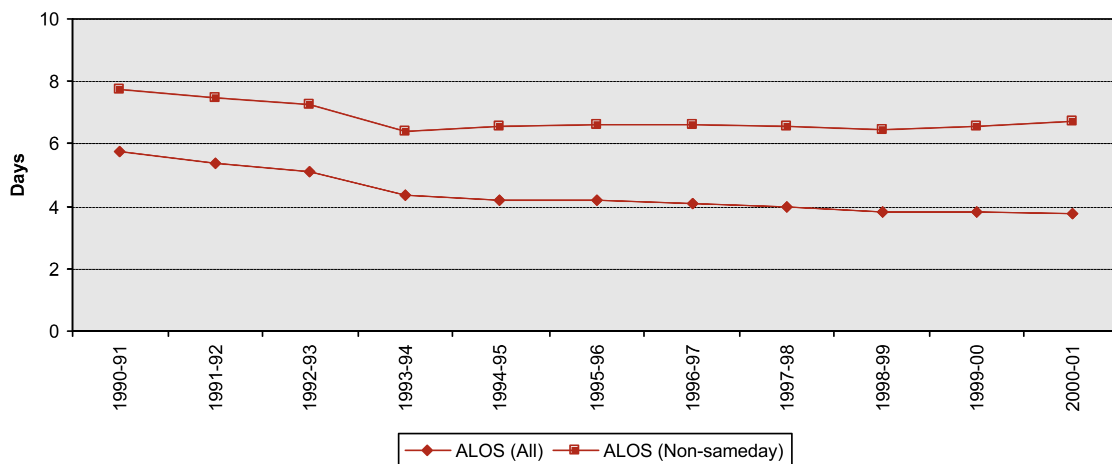



*Source:* VAED, 25 February 2002.

**2.10** Over the same period, Victoria has also experienced a 34 per cent decline in the average length of stay per patient hospitalisation[3]. While same-day cases contribute significantly to the total average reduction, the average length of stay for multi-day cases has also been contained. The increase in patient separations combined with the decrease in average length of patient stay results in increased patient turnover. The introduction of mandatory nurse-to-patient ratios is an attempt to reduce the impact of the resulting increased workload demands on nurses.

[3] VAED, 25 February 2002.

**CHART 2C**
**AVERAGE LENGTH OF STAY (ALL) AND AVERAGE LENGTH OF STAY (NON-SAME DAY)**




*Source:* VAED, 25 February 2002.

## Nurse numbers

**2.11** Payroll data supplied by DHS for February 2002 shows that approximately 24 600 equivalent full-time nurses were employed in public hospitals. Approximately 80 per cent of these nurses are Division 1. Table 2D shows that since 1996-97, there has been a modest decline in the ratio of nurses per admission.

**TABLE 2D**
**NUMBER OF EMPLOYED HOSPITAL NURSES PER HOSPITAL SEPARATION BY DIVISION, VICTORIA**

| *Year* | *Division 1 nurses per 1 000 patient separations* | *Division 2 nurses per 1 000 patient separations* | *Total of Division 1 and 2 nurses per 1 000 patient separations* | *Number of patient days per Division 1 nurse (EFT)* | *Number of patient days per Division 2 nurse (EFT)* |
|---|---|---|---|---|---|
| 1999-00 | 15.1 | 2.4 | 17.5 | 359.71 | 2 244.82 |
| 1998-99 | 15.3 | 2.4 | 17.7 | 359.06 | 2 297.06 |
| 1997-98 | 15.6 | 2.4 | 18.0 | 374.40 | 2 398.16 |
| 1996-97 | 16.5 | 2.7 | 19.2 | 363.91 | 2 223.15 |

*Source:* Australian Institute of Health and Welfare, Australian Hospital Statistics, 1999-00, 2001.

## PROVIDERS OF NURSE EDUCATION AND TRAINING

**2.12** Nurse education is offered by universities and Vocational Education and Training (VET) providers. Nurses are categorised as either:

- Division 1 nurses who complete a 3 or 4 year university degree. Upon graduation and registration, Division 1 nurses can undertake postgraduate studies to specialise in areas such as midwifery, intensive and peri operative care; and
- Division 2 nurses who complete a 12 month VET accredited course. Division 2 nurses can also undertake further studies upon completion of their courses, for example, in gerontic care.

**2.13** Division 1 nurses are qualified to deliver and supervise patient care at a higher level than Division 2 nurses. Some of the differences in the level of care relate to the administering of medicines and treatments.

**2.14** Providers of Division 1 nurse education include:

| | |
|---|---|
| Australian Catholic University | Deakin University |
| La Trobe University | Monash University |
| RMIT University | University of Ballarat |
| The University of Melbourne | Victoria University |

**2.15** Providers of Division 2 nurse education include:

| | |
|---|---|
| Australian Catholic University | Chisholm Institute of TAFE |
| Kangan Batman TAFE | RMIT |
| Swinburne University of Technology | Victoria University |
| Central Gippsland Institute of TAFE | Bendigo Regional Institute of TAFE |
| Bendigo Health Care Group | East Gippsland Community Institute of TAFE |
| Gordon Institute of TAFE | Goulburn Ovens Institute of TAFE |
| South West Institute of TAFE | Sunraysia Institute of TAFE |
| University of Ballarat | Wodonga Institute of TAFE |

**2.16** In addition to the above Division 2 education providers, there are a number of VET accredited private training providers, including Care Training Australia Pty Ltd, Employment Links Health Training and Mayfield Education Centre. Between 1997 and 2001, private training providers delivered education to approximately 20 per cent of all students enrolled in Division 2 nursing courses. The Victorian Qualifications Authority is responsible for accrediting VET providers. The NBV also accredits courses for the purposes of fulfilling registration requirements.

## AUDIT OBJECTIVES AND SCOPE

**2.17** The overall objective of this audit was to determine whether effective and efficient arrangements are in place for planning and managing the supply of, and demand for, appropriately qualified nurses across Victoria.

**2.18** The audit assessed:

- whether DHS is implementing appropriate actions to improve nurse work force planning processes;
- the effectiveness and efficiency of public hospital nurse work force planning and management at the local level;
- the effectiveness and efficiency of initiatives to encourage appropriate recruitment and retention of nurses; and
- effectiveness and efficiency of linkages between DHS, hospitals and nurse education providers in relation to work force planning.

**2.19** This audit focused on acute public hospitals as they are the major providers of health services in Victoria. The audit included coverage of:

- DHS as the Statewide health policy maker and planner;
- acute public hospitals as employers of nurses; and
- universities and VET providers of nurse education.

**2.20** The audit criteria used to assess the extent to which objectives have been met are contained in Appendix A of this report.

## COMPLIANCE WITH AUSTRALIAN ACCOUNTING STANDARDS

**2.21** The audit was performed in accordance with Australian Accounting Standards applicable to performance auditing and, as such, included such tests and procedures considered necessary to conduct the audit.

## PERIOD COVERED BY THE AUDIT

**2.22** The audit fieldwork covered the period from 1993, in terms of previous work force studies, to early 2002. In Part 4 of this report, data was gathered from 1990-91 to early 2002.

## EXPERT ASSISTANCE PROVIDED TO THE AUDIT TEAM

**2.23** Expert assistance was provided to the audit team by the following contractors:

- Ms Ella Lowe, nursing consultant and former Director of Nursing in metropolitan and rural hospitals, who provided professional advice to the audit team;
- Top Wheel HR Company (Principal Contractor: Ms Therese Samson) and MSPS Project Services (Principal Contractor: Mrs Marilyn Sneddon), who conducted reviews at selected hospitals of nurse work force planning and the impact of government initiatives covering nurse recruitment and retention; and
- Dr Elizabeth Webster, Senior Research Fellow, Melbourne Institute of Applied Economic and Social Research, The University of Melbourne, who provided advice on the nurse labour market.

**2.24** We would also like to acknowledge the significant support provided to the audit team by DHS, particularly the Nurse Policy Branch, universities and VET providers, the Health Industry Training Board and hospitals. The Graduate Careers Council of Australia and the Victorian Tertiary Admissions Centre also provided valuable statistical data for this report.

## GLOSSARY OF TERMS

**2.25** A glossary of terms can be found in Appendix D.

# Part 3

# Overseas experience

## INTRODUCTION

**3.1** Nursing shortages exist in many developed countries. There has been debate concerning whether there is a "true" shortage of nurses or a reduction in the number of qualified nurses willing to work in the health industry. Regardless of the causes, there has been a general decline in the number of nurses available to provide care.[1] This shortage has led to significant government attention. A number of governments have commissioned research, inquiries and expert advisory panels to address these problems.

**3.2** This Part of the report will examine some overseas experiences in order to provide a broader understanding of the problem and some of the international responses. The following countries/regions have been examined: New Zealand; United Kingdom; and Ontario, Canada. These countries were selected as they have hospital systems that are comparable in key aspects to that of Victoria, with nursing work forces trained in both university and vocational college settings. Each has also experienced nursing shortages in recent years.

## NEW ZEALAND HEALTH SYSTEM

### Overview of the system

**3.3** New Zealand is an island nation, with a population of 3.84 million, based mainly in cities.[2] There are 21 District Health Boards (DHBs) which provide hospital and health services to their geographically-defined populations. While Auckland DHB has 4 hospitals within its catchment, the majority of DHBs have only one or 2.

**3.4** DHBs are responsible for implementing a national strategy for health.[3] Key priorities are:

- increasing collaboration and co-ordination between service providers at all levels;
- focusing on population needs; and
- reducing disparities in health outcomes.

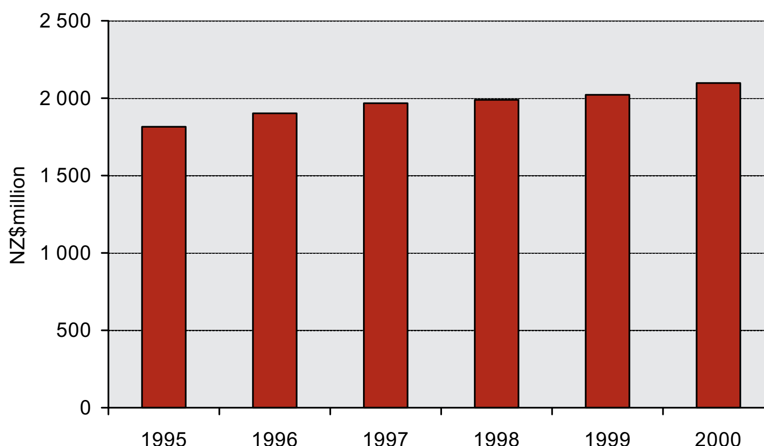
**3.5** DHBs are funded to provide a comprehensive range of health services, including hospital services. Expenditure on services is shown in Chart 3A.

[1] This is discussed in detail in *Nurse Recruitment and Retention Committee Final Report May 2001*, Policy and Strategic Projects Division, Victorian Department of Human Services, Melbourne Victoria, May 2001, pp. 25-31.

[2] Ministry of Health, New Zealand *An Overview of the Health and Disability Sector in New Zealand*, November 2001, pp. 1-2.

[3] Ministry of Health, New Zealand, *The New Zealand Health Strategy*, June 2000.

**CHART 3A**
**PUBLIC HOSPITALS AND HEALTH SERVICES**
**COST OF PROVIDING SERVICES**




*Source*: Statistics New Zealand, *Public Health Financial Statistics*, December quarter 2001.

**3.6** In 2001 there were 84 public hospitals in New Zealand, with a total of 12 364 beds.[4] In 1998-99 there were 704 195 discharges from public hospitals, an increase over the 1997-98 total of 681 022.[5] The hospitals range in size and complexity from small district hospitals to large tertiary and specialist teaching hospitals. Public hospital services are provided free. The cost of providing hospital services has been increasing, with the bulk of the increases attributed to employee costs.[6]

## Dimensions of the nursing shortage

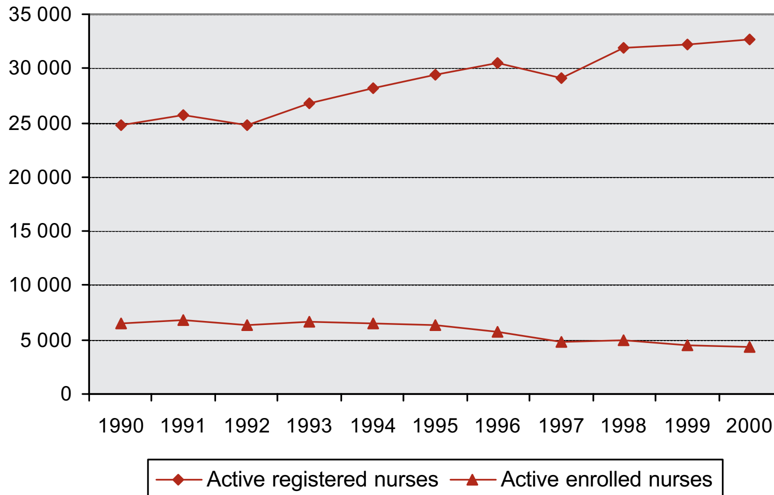
**3.7** Chart 3B shows the number of nurses in the work force over the last 10 years with registered nurses within the New Zealand health system equating to Division 1 nurses and enrolled nurses equating to Division 2 nurses.

[4] New Zealand Health Information Service, *Health Statistics: Public Hospital Patient Statistics*.

[5] *ibid*., p. 2.

[6] Statistics New Zealand, *Public Health Financial Statistics,* December quarter 2001.

**CHART 3B**
**NURSES ACTIVE IN THE WORK FORCE OVER THE LAST 10 YEARS**




*Source*: Derived from New Zealand Health Information Service, *Health Statistics: New Zealand Work Force Statistics 2000*.

**3.8** While the extent and impact of the nursing shortages in New Zealand are difficult to quantify, it caused sufficient concern for the Ministry of Health (MOH) to commission research into nurses and midwives who maintain annual practising certificates but who choose not to work in clinical practice. The report based its findings on surveys sent to 6 943 non-practising nurses and midwives, with a return rate of 49 per cent.[7]

**3.9** Key findings from the report included:

- the top 3 reasons why nurses were choosing not to work in clinical practice were:
    - parental or child care responsibilities;
    - unsuitable hours of work; and
    - insufficient salary.
- factors that would attract nurses back to the clinical work force were:
    - more flexible hours of work;
    - availability of return to work programs;
    - salary increases; and
    - provision of child care facilities.

[7] New Zealand Health Information Service, *Non-practising Nurses and Midwives 2000.*

## Measures to address shortages of nurses

**3.10** In February 1998, the Minister for Health announced the establishment of a ministerial taskforce on nursing to undertake a major review of barriers affecting the contribution of nursing to health care. The task force reported in July 1998.[8] The report details a number of structural barriers, which affect the working environment for nurses and proposes strategies to address them:[9]

- **Barrier** - Stress resulting from working conditions. Proposed strategies:
    - improve access to postgraduate education;
    - expand scope of nursing practice;
    - develop nursing leadership;
    - support new graduates in the first year of practice; and
    - improve working conditions and raise professional status and visibility.
- **Barrier** - Lack of clear career pathways. Proposed strategy:
    - develop clinical career pathways (already underway in some services) and move to national consistency.
- **Barrier** - Inadequate systems for costing nursing services and determining skill mix. Proposed strategies:
    - fund a project to create a data set for costing nursing services to allow for nursing costs to be clearly determined for contract and budget purposes; and
    - once established, these budgets should be held and managed by nursing leaders.
- **Barrier** - Inadequate information systems for future work force needs. Proposed strategy:
    - establish an inter-agency project to investigate work force issues, analyse existing data and identify gaps where extra data is needed.[10]

[8] Ministry of Health, *Report of the Ministerial Taskforce on Nursing: Releasing the Potential of Nursing*, August 1998.

[9] *ibid.,* pp. 73-7.

[10] It is unclear from the report how this last strategy will allow forecasting of future work force needs.

**3.11** The extent and impact of these strategies has not been evaluated so far. In December 2000, the MOH stated that it would be seeking to work with researchers who were studying the perceptions of staff working in the health work force.[11] Much emphasis has been placed on the DHBs to address issues of recruitment and retention as part of their brief. In the first half of 2001, the MOH signed a Memorandum of Understanding with all major nursing organisations in New Zealand to facilitate relationships and policy development in health. New Zealand has also revisited its decision to cease training enrolled nurses. It has approved competencies for a second level nurse and is proceeding to implement this.[12]

## UNITED KINGDOM HEALTH SYSTEM

### Overview of the system

**3.12** Public health services within the United Kingdom are government-funded and managed by the Department of Health. The National Health Service (NHS) is given responsibility by the Department of Health to provide a comprehensive range of health services to the population. NHS manages services from national offices in England, Scotland, Wales and Northern Ireland. They are responsible for the management and delivery of health services to their population. Each entity is further divided into regional management areas. In July 2000, the Secretary of State for Health tabled a major reform plan for the NHS. The NHS plan details major reforms and targets, to be accomplished within strict time frames. These reforms will affect hospitals, among a range of other agencies.[13]

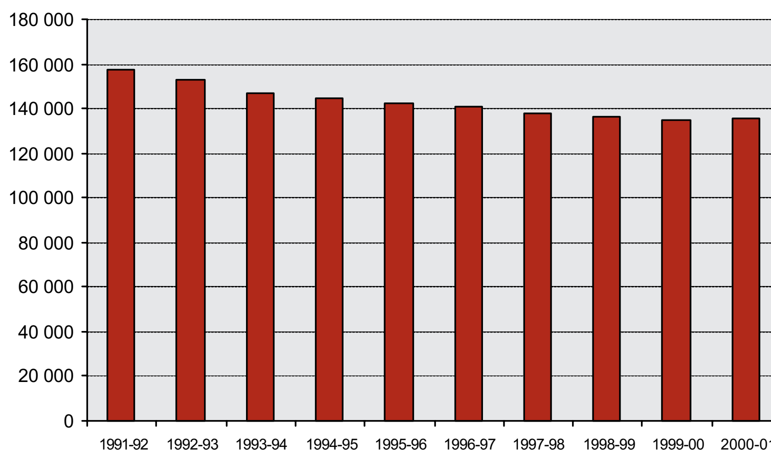
**3.13** Hospital services are generally provided by local NHS Hospital Trusts, which serve geographic areas, and provide for a range of local health needs. Some Hospital Trusts manage more than one hospital and may also provide tertiary and major teaching hospital services. NHS Hospital Trusts are the major employer of health professionals within the NHS. Chart 3C shows the number of available general and acute beds in England annually for the last 10 years.

[11] Ministry of Health, *Nursing Sector Update,* December 2000.

[12] Ministry of Health, *Nursing Sector Update,* November 2001.

[13] NHS, *The NHS Plan*, HMSO, July 2000.

**CHART 3C**
**GENERAL AND ACUTE BEDS AVAILABLE – NATIONAL HEALTH SERVICE**



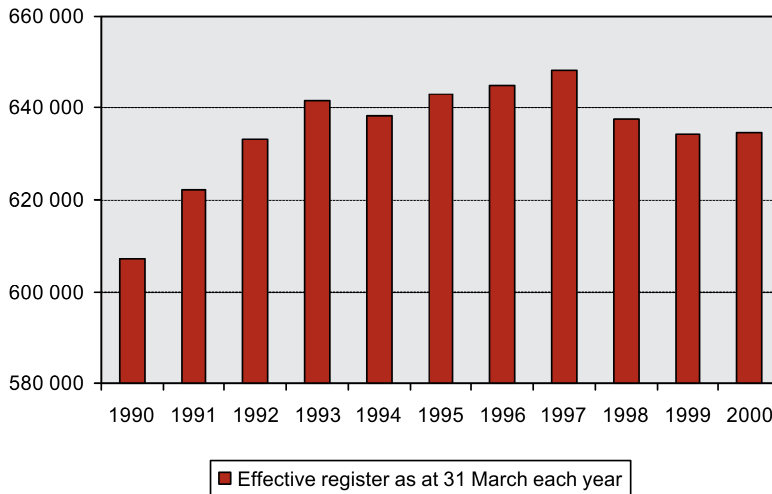

*Source*: Department of Health, *Press Release: "First Increase in NHS General & Acute Hospital Beds since 1971*, Reference 2001/0431.

## Dimensions of the nursing shortage

**3.14** Concerns related to nursing shortages have been growing in the United Kingdom for some time. The Royal College of Nursing claimed that from the mid-1980s to 1996, training places for nurses reduced from 37 000 to 13 000.[14] Chart 3D and 3E gives an indication of the trend in annual nursing registrations. Chart 3D represents nurses currently engaged in the nurse work force.

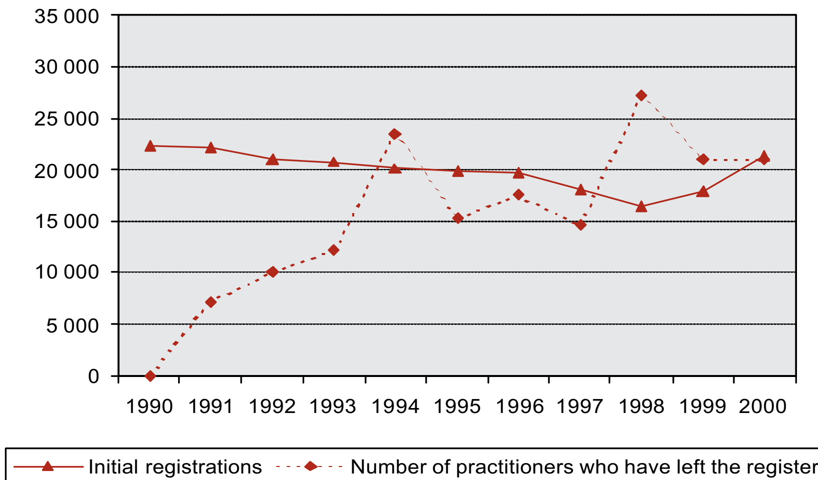
[14] News, Nursing Shortfall Hits Britain, *British Medical Journal*, 312, January 1996, p. 139

**CHART 3D**
**TREND IN ANNUAL NURSING REGISTRATIONS EFFECTIVE REGISTER, UK**




*Source*: UKCC Annual Statistics Volume 5.

**CHART 3E**
**TREND IN ANNUAL NURSING REGISTRATIONS, UK**
**INITIAL REGISTRATIONS AND PRACTIONERS WHO HAVE LEFT THE REGISTER**




*Source*: UKCC Annual Statistics Volume 5.

**3.15** As at March 2001, the United Kingdom Central Council for Nursing Midwifery and Health Visiting (UKCC) reported that there were 632 000 nurses on the register, with one in three new registrations coming from overseas.[15] International recruitment of nurses has been increasing. In 1998-99 almost 5 000 new nurse entrants from overseas were registered. This constituted 28 per cent of the total new registrations for that year.[16] In 2001, overseas recruitment had increased to 33 per cent of total new registrations. Growing government concern partly relating to the possibility of adverse effects on the recruits' home health care systems led to the Department of Health issuing a policy document aimed at ensuring recruiters exercised judgment in their overseas recruitment activity.[17]

**3.16** Where feasible, hospitals use temporary staff from in-house nurse "banks" or commercial agencies. In 2001, an Audit Commission report noted that on a typical day about 20 000 nurses, midwives and health care assistants were providing bank and agency cover across England and Wales at a cost of nearly £810 million a year.[18] This amounted to almost 10 per cent of the total annual payroll costs for nurses in the NHS. At that time, the shortfall in registered nurses in England alone was estimated at about 10 000.[19]

## Measures to address shortages of nurses

**3.17** Two broad approaches were taken to address the shortage in the United Kingdom:

- Short-term measures to assist with immediate service pressures in the health system:
    - In September 1998, the Health Minister announced £50 million to implement a range of initiatives to increase nursing numbers by 15 000 over 3 years,[20] including extra training places for nursing, targeting nurses who have left the profession, broadening the career structure for nurses and improving nurses' working conditions;
    - A return to nursing survey was undertaken in 1999 which found that nurses would return if incentives such as access to part-time work and flexible hours were available.[21] A nursing recruitment campaign aimed at attracting nurses back into the work force also commenced in 1999. By May 2000, more than 45 000 calls had been made to the national hotline and 1500 nurses, midwives and health visitors had contacted the NHS about returning to work;[22]

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[15] UKCC, Annual Statistics Volume 5, *General UKCC Statistics.*

[16] Buchan J. & Edwards N. Nursing Numbers in Britain: the Argument for Work force Planning, *British Medical Journal*, 320, April 2000, pp. 1067-70, p. 1067.

[17] Department of Health, *Guidance on International Nursing Recruitment*, November 1999.

[18] Audit Commission, *Brief Encounters- getting the best from temporary nursing staff,* the Audit Commission,

[19] *ibid.*

[20] Department of Health, *Press Release reference 98/39, 23* September 1998.

[21] Department of Health, NHS Executive, *Return to nursing survey finding ways to encourage people to return to nursing, midwifery and health visiting*, 1999.

[22] Taylor H & Mullally S, *Letter "Nurse Recruitment Campaign 2000",* addressed to Trust Human Resource Directors and Trust Nurse Executive Directors, London: Department of Health, 2 May 2000.

- In May 2000 a letter was sent to 60,000 nurses on the UKCC lapsed registration database encouraging a return to work;[23] and
- On 7 November, 2000, the Health Minister announced an agreement signed with Spain, to recruit up to 5000 Spanish nurses to *"... help plug short term staff shortages."*[24]

- Longer-term structural reform, summarised in a consultation paper released in April 2000 which has received general support for proposals to:
  - Ensure greater integration of work force planning and flexible staff deployment;
  - Establish a National Work Force Development Board;
  - Rationalise education and training levies into an integrated funding stream;
  - Improve management ownership with clearer roles and responsibilities for planning, including development of work force plans;
  - Establish Work Force Development Confederations across areas to co-ordinate planning across NHS and other health service employers;
  - Improve training, education and regulation; and
  - Improve career pathways.[25]

**3.18** Many of these short and long-term strategies require major change. While there has been significant emphasis on encouraging local initiatives, most of the major policy and funding developments have been established centrally, including the following initiatives which are in the early stages of implementation:

- The launch of *NHS Professionals* in November 2000 in England. This is a set of policy guidelines on establishing local NHS staffing agencies to cater for temporary recruitment needs;[26]
- Guidelines on Work Force Development Confederations for work force planning;[27] and
- Increasing training places for nurses.

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[23] *ibid.*

[24] Department of Health, *Press Release reference 2000/0650, 7* November 2000.

[25] NHS, *A Health Service of all Talents: Developing the NHS Work force,* Consultation Document on the Review of Work Force Planning, Department of Health, April 2000 and Department of Health, *A Health Service of all Talents: Developing the NHS Work Force*, Results of Consultation, February 2001.

[26] NHS Executive, *NHS Professionals*, Health Service Circular 2001/1, 16 February 2001.

[27] Department of Health, *Work Force Development Confederations Guidance*, 14 February 2001.

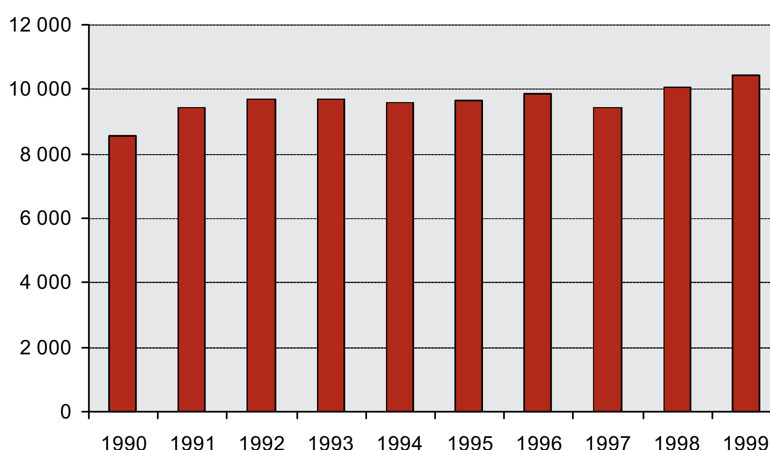
## ONTARIO, CANADA HEALTH SYSTEM

### Overview of the system

**3.19** Canada has a similar health system to Australia. It is based on 10 provincial and 3 territorial insurance plans known as "Medicare". The system provides access to universal, comprehensive coverage for hospital and general practice services.[28] Ontario is Canada's most populous province, with a population of almost 12 million people. Within Ontario, 7 regional Ministry of Health and Long-term Care (MOHLTC) offices administer health services.

**3.20** There are 211 public and private hospitals in Ontario which receive funding from the MOHLTC. Chart 3F provides details of total hospital expenditure.

**CHART 3F**
**TOTAL HEALTH EXPENDITURE FOR HOSPITALS, ONTARIO**
(current Canadian $m)




*Source*: Canadian Institute for Health Information, *Total Expenditure, by Use of Funds, Ontario, 1975 to 2001- Current Dollars.*

### Dimensions of the nursing shortage

**3.21** Nursing issues have been largely the responsibility of provincial governments in Canada. However, as a consequence of a growing perception that there was a crisis in nursing, the Canadian Government established the Canadian Nursing Advisory Committee which was tasked to improve nurse human resource planning to *"... achieve and maintain an adequate supply of nursing personnel who are appropriately educated, distributed and deployed to meet the health needs of Canadian residents"*.[29]

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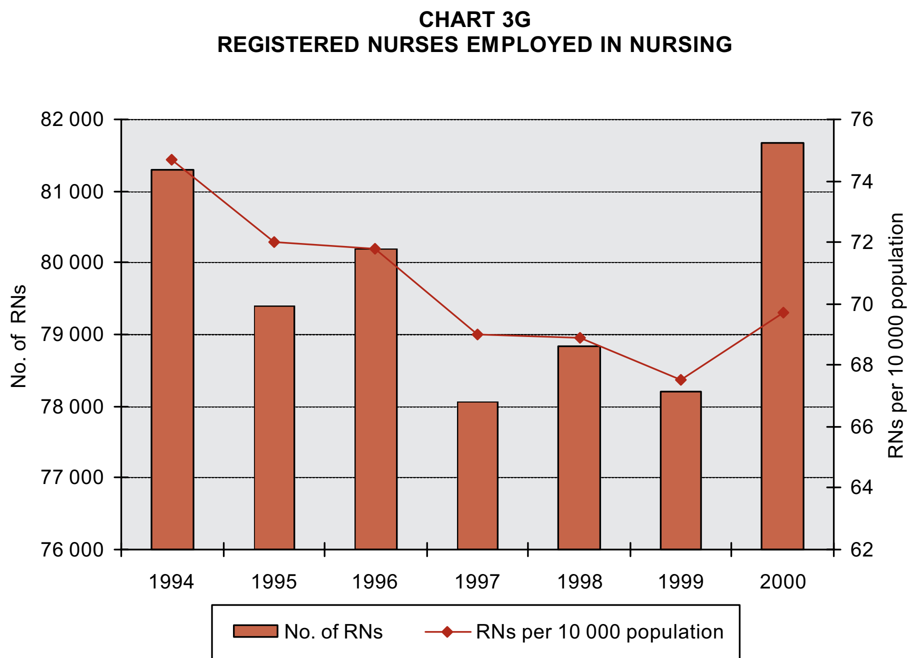
[28] Health System and Policy Division, *Canada's Health Care System*, Health Canada, 1999.

[29] Advisory Committee on Health and Human Resources, *The Nursing strategy for Canada,* October 2000, p. 2.

**3.22** In the 1990s, significant restructuring of health services in Ontario occurred. Most of this was in response to cost-reduction pressures and the replacement of licensed health professionals by unregulated workers in some clinical settings.[30] Between 1992 and 1997, there was a significant move in the hospital sector to casualisation of the nursing work force. This was partly in response to funding pressure, but also because of competitive models for contracted services, which saw public, private and not-for-profit agencies bidding for government care contracts.[31] There was a reduction in positions, which supported educational and clinical practice development, leaving nurses with heavier workloads and less educational and supervisory support.[32]

**3.23** The number of registered nurses employed in nursing in Ontario is shown in Chart 3G.

**CHART 3G**
**REGISTERED NURSES EMPLOYED IN NURSING**




*Source*: Canadian Institute for Health Information, *Ontario Registered Nurses Database*.

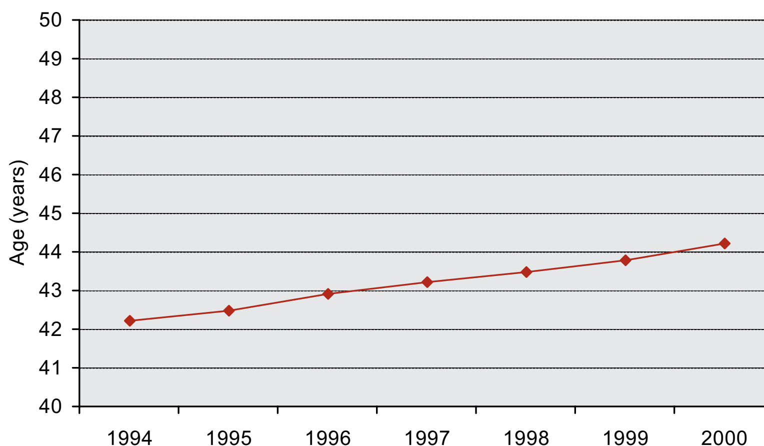
[30] Ministry of Health and Long-Term Care, *Good Nursing, Good Health: An Investment for the 21st Century,* Report of the Nursing task Force, January, 1999, p. 8,

[31] *ibid.*

[32] *ibid.*

**3.24** Details contained in Chart 3H demonstrate the ageing of the nursing work force.

**CHART 3H**
**AVERAGE AGE OF REGISTERED NURSES IN ONTARIO**




*Source*: Ministry of Health and Long-Term Care, *Good Nursing, Good Health: An Investment for the 21st Century,* Report of the Nursing task Force, January 1999.

## Measures to address shortages of nurses

**3.25** From 1996 to 2001 the MOHLTC funded the Nursing Effectiveness, Utilization and Outcomes Research Unit. This is a joint collaboration between the University of Toronto, Faculty of Nursing, and McMaster University School of Nursing. The aim of the collaboration is to study nursing human resources with the goal of developing strategies to meet current and future health needs.[33] Significant research has been undertaken since 1996, including examination of stressors in the workplace, developing predictive tools for nursing work force planning and studies relating to nursing leadership.

**3.26** Ontario approached the serious shortage of nurses by establishing a nursing task force in September 1998. The report of this task force highlighted a number of issues and made a range of major recommendations that have been progressively implemented since its report was released in January 1999. The report noted 2 specific concerns raised by nurses. These were the inability to provide adequate care and the impending shortage of nurses in Ontario.[34] Both of these were supported by the Task Force's findings.

[33] Nursing Effectiveness, Utilization and Outcomes Research Unit, *Annual Report July 2000-June 2001*, p. 3.
[34] *ibid.*, p. 2.

**3.27** Key recommendations of the report included:

- providing an investment of $375 million to create additional frontline nursing positions and developing a method of funding nursing services which takes account of consumer demand, quality and workload;
- providing opportunities for nurses to participate in decision-making affecting patient care, with specific responsibility for this vested at a senior management level;
- funding of research to support a comprehensive nursing resource database to assist in determining the number and skill mix of professional nurses and non-professional providers for optimum outcomes;
- funding of pilot projects which would test alternative models of nursing care (e.g. flexible hours) and that these be evaluated;
- making the Bachelor of Science (Nursing) the minimum entry to practice for new registered nurses beginning in 2005 and lengthening the Registered Practical Nurse college program from 3 to 4 semesters; and
- providing employees and employers with financial incentives to ensure access to continuing education.[35]

**3.28** There has been some progress in implementing the Task Force's recommendations, especially in the areas of employment opportunities, nursing human resource research and enhanced educational access, but significant issues remained unresolved.[36] These unresolved issues include:

- high rates of casualisation and part-time employment;
- underutilisation of nurses' roles to maximise the use of skills and knowledge;
- increasing rates of overtime;
- wage disparities between sectors; and
- inconsistent nursing human resource data quality, availability and standards.[37]

**3.29** By July 2001, the Ontario Government had invested $463.6 million in new base funding over the previous 2 years and was planning a further $399.5 million in the following year to fund new nursing positions. Chart 3G shows there has been an increase in the supply of nurses in Ontario in 2000 arresting a decline in recent years.

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[35] *ibid.*, pp. 7-9.

[36] Joint Provincial Nursing Committee, *Good Nursing, Good Health: A Good Investment, Progress Report on the Nursing task Force Strategy for Ontario,* July 2001, pp. 6-8.

[37] *ibid.,* pp. 7-10.

## MAJOR LESSONS LEARNT

**3.30** The major lessons learnt from the experience of New Zealand, the United Kingdom and Canada are that nursing shortages are a problem in other countries who share similar economies and health systems to our own.

**3.31** Improved wages and conditions and fundamental workplace reform which, among other things, addresses the way in which nursing is organised and responds to the aspirations of nurses (especially flexibility in working arrangements and career structures) is crucial for:

- retention of trained nurses;
- increased training rates; and
- encouraging qualified nurses to return to nursing.

**3.32** In terms of the development of future strategies, the overseas experience suggests it is important to:

- develop sound and reliable data collection systems as a foundation for planning, policy development and evaluation;
- adopt a partnership approach to consultation and decision-making with other key stakeholders such as universities;
- undertake longer-term reforms such as testing and evaluating alternative models of nursing care; and
- conduct applied research into nursing-related issues (e.g. introducing more flexible rostering practices).

**3.33** These themes will be explored in greater detail in the following Parts of this report.

# Part 4

# Nurse labour market

## INTRODUCTION

**4.1** The statistical information contained in this Part of the report provides information on the nurse labour market and a context for the consideration of audit findings and recommendations presented later in this report. The following organisations provided data for this Part of the report:

- Department of Human Services (DHS);
- Australian Institute of Health and Welfare (AIHW);
- Australian Bureau of Statistics (ABS);
- Victorian Tertiary Admissions Centre (VTAC);
- Nurses Board of Victoria (NBV);
- Graduate Careers Council of Australia (GCCA);
- Department of Education and Training; and
- Tertiary education institutions providing undergraduate nurse education.

**4.2** The data presented has some limitations:

- Tertiary Entrance Scores. We have provided ENTER[1] scores based on the "Final Fringe"[2] categories. Final Fringe ENTER scores encompass 95 per cent of course offers for places. We consider these scores to be the most accurate representation of scores required for course places, though data is not available for all rounds of offers and for all universities;
- Nurse Graduates. There are inconsistencies in the way universities record graduate data. Some universities only record graduates who undertake the graduation ceremony. Consequently, there is no reliable data on the number of graduates from nurse education courses. As a de facto measure of nurse graduates, we have included final year enrolments on the assumption that the majority of students will complete their final year;
- Nurse Graduate Destinations. The GCCA surveys nursing graduates approximately 4 months after course completion to ascertain their employment status. No follow-up surveys are undertaken. The GCCA achieved the following response rate (the percentage of final year students who responded to the survey):
  - 1998 – 43 per cent;
  - 1999 – 43 per cent;
  - 2000 – 34 per cent; and
  - 2001 – 32 per cent.

[1] ENTER or Equivalent National Tertiary Entrance Rank is a percentile ranking showing an applicant's comparative placement in their Victorian Certificate of Education year group.

[2] Final Fringe scores are the most accurate representation of the tertiary entrance scores as they indicate the point at which 95 per cent of all course offers are made.

- Nurse Labour Force Survey. The Australian Institute of Health and Welfare provided our Office with unpublished 1999 data from this survey. This data represents the latest available information. Details however, may be subject to change before publication by AIHW later in 2002.

## THE VICTORIAN NURSING SYSTEM

### A brief overview

**4.3** This Part of the report outlines the operation of the nursing labour market within Victoria and the functioning of work force planning within this market.

**4.4** Nurses form the largest occupational group within the Victorian health system. In Victoria, nurses are identified and registered as either Division 1 or 2. Division 1 nurses and Division 2 nurses[3] differ in respect to their level of education, the scope of practice and, therefore, the services they provide.

**4.5** Since the mid-1990s, Division 1 nurses have qualified by completing a minimum 3 year university degree course. Division 1 nurses are registered to practice nursing without supervision and assume responsibility and accountability for the care they deliver. Since the mid-1990s, Division 2 nurses have qualified by undertaking a one year certificate course through the Vocational Education and Training (VET) sector.[4] Division 2 nurses provide nursing care under the supervision of Division 1 nurses and are restricted in some areas of their clinical practice such as medication administration.

**4.6** Division 1 and Division 2 nurses fulfil all nursing roles within the general hospital setting. In some hospitals, non-nursing staff may assist nurses with tasks such as lifting and transferring patients. Titles for these employees differ between hospitals, but may include Personal Care Workers, Patient Assistants or Orderlies. This class of employee may not have any formal training. Personal Care Workers are also often employed in the residential aged care setting and certificate courses for Personal Care Workers are offered by a number of VET providers.

**4.7** There are a variety of career paths for Division 1 nurses. They can become specialists in particular areas such as accident and emergency and critical care[5], by years of experience or postgraduate study. Postgraduate study and experience also enhances a nurse's ability to work for higher pay and greater seniority as a nurse manager or supervisor.

[3] There were also Divisions 3, 4 and 5 under the previous scheme of nurse education. On the current nurse register, Division 1 can include former Divisions 3 and 4 nurses and Division 2 can include former Division 5 nurses. Although Division 3, 4 and 5 registers are closed, there are still more than 2,500 nurses registered in these divisions.

[4] Prior to this time, both types of nurses qualified in hospitals under an apprenticeship scheme which combined on and off-the-job training.

[5] A list of the possible nurse specialties is provided in Appendix C of this report.

**4.8** This segmentation of Division 1 nursing into speciality fields means that it is possible for shortages and surpluses to occur across the different specialities. Shortages of both Division 1 and Division 2 nurses have been recurring themes in Victoria since the mid-1980s. During 2001, the Commonwealth Department of Employment and Workplace Relations classified 14 out of the 15 types of Division 1 nurses as "in shortage". Division 2 nurses were not considered in shortage.

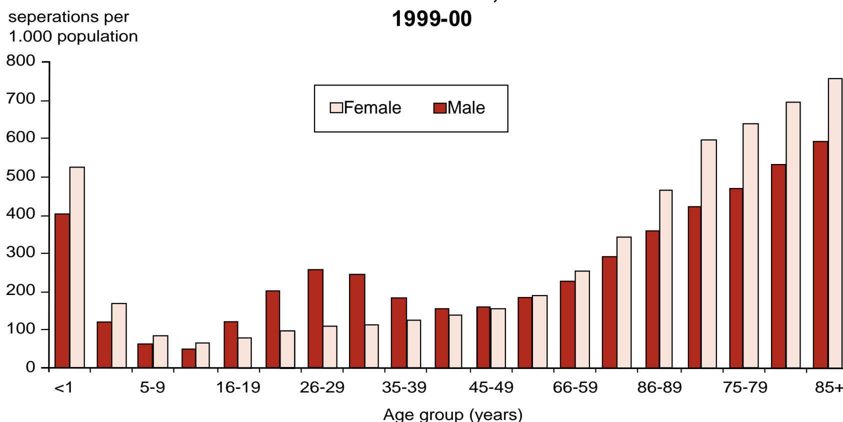
## NURSE DEMAND

### Factors influencing demand for nurses

**4.9** Demand for nurses is driven by 4 underlying determinants of health services demand: demography, income, technology and institutional practices. Demand for nurses can also be seasonal, with winter being a time of higher demand.

**4.10** Demographic determinants can include factors such as an ageing population. Older people consume a far greater amount of health services per capita than young people. Consequently, as the population distribution becomes increasingly concentrated in older age groups, the demand for nurses, mainly in residential aged care, will increase. Data on episodes of hospital care by age group shown in Chart 4A indicate that rates increase steeply after the age of 50 and continue to climb steeply, especially for men.

**CHART 4A**
**EPISODES OF PUBLIC HOSPITAL CARE PER 1 000 POPULATION BY AGE GROUP, AUSTRALIA,**
**1999-00**




*Source*: Australian Institute of Health and Welfare, *Australian Hospital Statistics 1999-00* (Health Services Series no. 17) 2001.

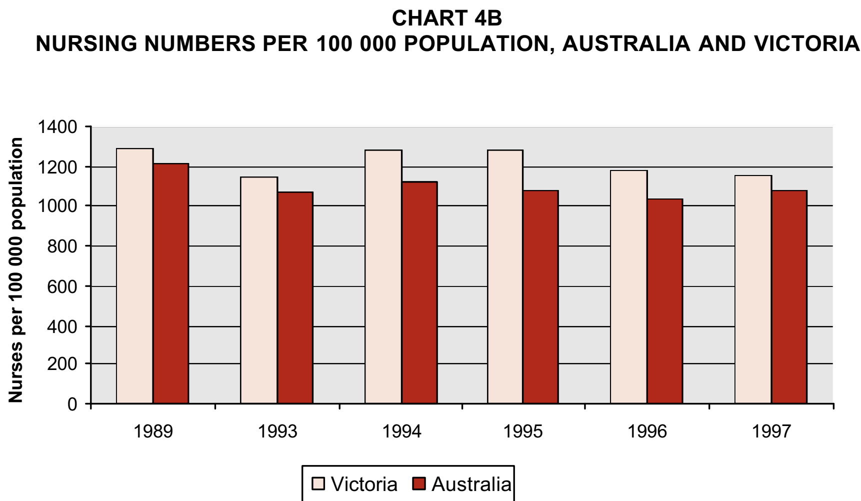
**4.11** Advances in medical and health technology have had opposing effects on the demand for nursing by increasing the number of procedures available (and thus survival rates) and by improving procedure recovery rates (and thus reducing the length of patient hospital stays).

**4.12** The main institutional protocols and regulations affecting both the demand for health services and the demand for nurses include:

- nurse-to-patient ratios;
- employment, health and safety regulations; and
- the Australian Health Care Agreement between the Commonwealth and Victorian Government to provide public health services.

**4.13** Nurse-to-patient ratios depend on the classification of the ward. Since the Nurse Enterprise Bargaining Agreement of 2000, the standard ratio of patients per nurse for a general ward during the daytime shifts is 4 to 1. Higher ratios are required for specialised wards. Chart 4B demonstrates a moderate decline in the number of Victorian and Australian nurses against the respective populations.

**CHART 4B**
**NURSING NUMBERS PER 100 000 POPULATION, AUSTRALIA AND VICTORIA**




*Source*: Australian Institute of Health and Welfare, Nurse Labour Force 1999 (National Health Labour Force Series No. 20) 2001. Data beyond 1997 not available.

**4.14** The functioning of the Victorian health system is dependent upon the appropriate supply and effective deployment of Division 1 and Division 2 nurses. In the last 10 years, Victoria has seen a steady increase in the number of patients being treated in its public hospital system and growth in the number of same-day hospitalisations. This is covered in detail in Part 2 of this report. The increase in patient treatments is accompanied by the relative decrease in nurse numbers as measured against the population.

**4.15** Given the increase in patient separations over the past 10 years and the ageing of the Victorian population, it is reasonable to expect that increasing demand for nurses will continue.

## NURSE MOBILITY AND THE IMPACT OF WORKING CONDITIONS

### Entrants into, and departures from, the nursing profession

**4.16** Data from the ABS Labour Mobility Survey for Victoria indicates that in the late 1990s, the inflows and outflows to nursing have been approximately balanced. However, the attachment of Division 2 nurses to their field of training appears lower than for Division 1 nurses. Data indicates that each year about 4 700 Division 1 and 600 Division 2 nurses leave nursing. Almost 21 per cent of Division 1 and 33 per cent of Division 2 nurses leave for other professions, while the remainder leave the labour force, either to retire, to undertake household or non-market work, or become unemployed.

**4.17** These losses are partly compensated by nurses coming into the profession. Most of those who enter nursing in any one year, an average of 3 700 Division 1 and 1 100 Division 2 nurses, were not working the previous year. Some would have been studying for their nursing qualifications and others would have returned from family leave. Around 25 per cent of entrants to Division 1 and 21 per cent of entrants to Division 2 were from other occupations.

**4.18** Prior to 2001, the net impact of these inflows and outflows of the nurse labour market has been a loss of Division 1 nurses; approximately 2 800 in 1996, and approximately 100 per year in 1998 and 2000; but a net inflow of Division 2 nurses of 400 to 600 per year.

### Factors influencing the retention and supply of nurses

**4.19** The supply of nurses includes all registered nurses who are currently working, or actively seeking a nursing job in Victoria. The main factors that affect the supply of nurses include:

- relative wages of nursing compared with these alternative occupations;
- relative conditions of employment, including workload and occupational health and safety issues, flexibility of shift work and career development opportunities;
- relative job and promotional opportunities including alternative career paths for women (including retirement or assuming full-time family responsibilities mainly for those aged between 35 and 50 years);
- relative level of job satisfaction in nursing compared with alternative occupations that nurses would contemplate;
- the supply of university and VET places in nursing courses; and
- the costs of acquiring nursing qualifications and, for re-entrants, costs associated with registration.

**4.20** Several studies, in Australia and overseas, have identified the above factors as affecting the supply of nurses. One United States study found that hospitals with no difficulty in recruiting and retaining nurses had the following attributes in common:

- nurses had autonomy over their nursing practice, both in their decision-making abilities and the work environment;
- there were clear leadership roles for nurses in administration;
- mentoring schemes were established for new staff; and
- good relationships and sound communication existed between nurses and medical staff[6].

**4.21** The New South Wales Health Department's Consortium of Nursing undertook a study in 2000 which revealed that, similar to other occupations, the longer a nurse was out of the nursing work force the less inclined he or she was to return[7]. Another study found that retention of nurses (both Division 1 and Division 2) in nursing fell from 80 per cent 2 years after completing their qualifications to 36 per cent after 20 years[8]. Declining rates of retention are common to most occupations, and they suggest that it is easier to prevent a worker from leaving the occupation than it is to attract the worker back after a period of absence.

## Wages and conditions

**4.22** According to the AIHW, nursing salaries in Victoria compare favourably with those in all other States. Grade 7 registered nurses in Victoria earn the equivalent to a nursing manager in NSW or a Nursing Director in Queensland and Western Australia.

**4.23** On average, using Australia-wide data for the year 2000, Division 1 nurses earn less than other professional workers (and considerably less than other health and social professionals) but a comparable amount to associate professionals. The disparity between Division 2 nurses and other associate professionals was even greater, with Division 2 nurses earning considerably less than other associate professionals.

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[6] Kramer, M. (1990). "The Magnet Hospitals: Excellence Revisited." *Journal of Nursing Administration* 20(9): 35-44; Havens and Aiken (1999). "Shaping Systems to Promote Desired Outcomes: the Magnet Hospital Model." *Journal of Nursing Administration* 29(2): 14-20; Aiken, Smith, et al. (1994). "Lower Medicare Mortality Amongst a set of Hospitals Known for Good Nursing Care." *Medical Care* 32: 771-787.

[7] Consortium of Nursing (2000). *NSW Nursing Workforce Research Project Report*, Consortium of Nursing, NSW Health Department Nursing Branch, Sydney.

[8] Thomas, C. (1989). *Separation from Skilled Occupations*, Australian Government Publishing Service, Canberra.

### Job satisfaction

**4.24** Low job satisfaction may account for the drift out of nursing into unrelated jobs. Job satisfaction data from the International Social Sciences Survey of Australia from 1984 to 2000 indicates that while nurses were more satisfied with the non-pecuniary aspects of nursing compared with the para-professional and non-professional work force, they were slightly less satisfied than other professionals.

**4.25** According to a study undertaken by the Melbourne Institute of Applied Economic and Social Research, if viable job offers exist, Division 1 nurses will favour other professional jobs above nursing jobs for the same rate of pay. The situation for Division 2 is the reverse; they are more satisfied than the non-professional work force and they are more satisfied than other para-professionals.

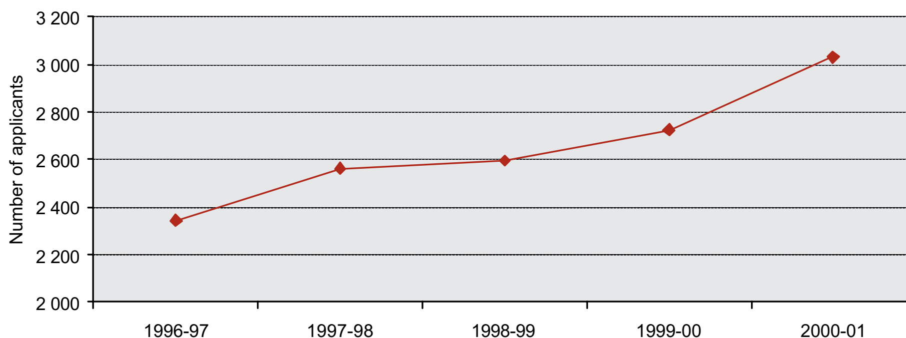
## NURSE SUPPLY

**4.26** Universities and Vocational Education and Training providers are the main source of new nurse supply in Victoria. Other sources of new nurse supply include overseas and interstate nurses. Nurse supply is also influenced by nurses moving in and out of the work force.

### Division 1 nurses

**4.27** Eight education providers offer undergraduate nursing courses in Victoria at campuses located in metropolitan and regional areas. Chart 4C shows an increase in the number of applications received by the Victorian Tertiary Admissions Centre (VTAC), for Division 1 nursing courses in the past 5 years.

**CHART 4C**
**NURSING COURSE APPLICANTS**

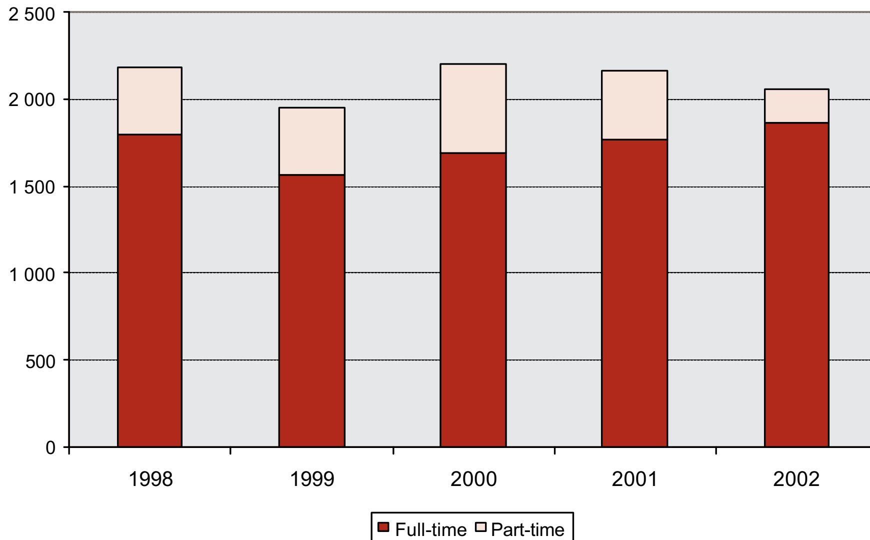



*Note:* Information charted above only represents applicants who elected a nursing course as their first study preference.

*Source*: Victorian Auditor-General's Office, based on data supplied by the VTAC.

**4.28** While the above chart demonstrates growth in nursing course applicants, Chart 4D indicates that total enrolments for Division 1 nursing courses have decreased in the past 2 years, although full-time enrolments have marginally increased.

**CHART 4D**
**FIRST YEAR ENROLMENTS FOR DIVISION 1 COURSES**

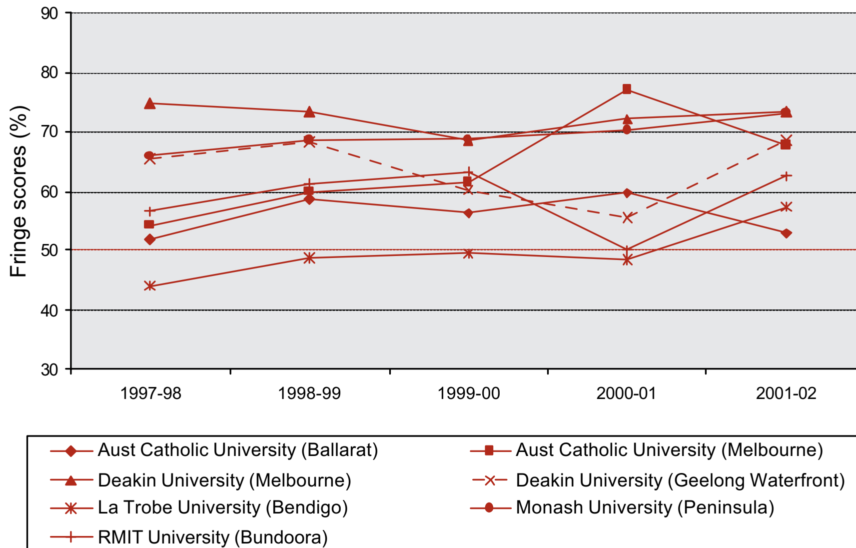



*Note*: Due to data being unavailable, 2002 enrolment figures for Ballarat University have been based on an average of the previous 4 years' enrolments.

*Source:* Victorian Auditor-General's Office, based on data provided by universities.

**4.29** While total first year enrolments have decreased in the past 2 years, Final Fringe Scores for most nursing courses demonstrate an upward trend, suggesting that the quality of nursing course applicants is improving. Details are contained in Chart 4 E.

**CHART 4E**
**TERTIARY ENTRANCE SCORES**

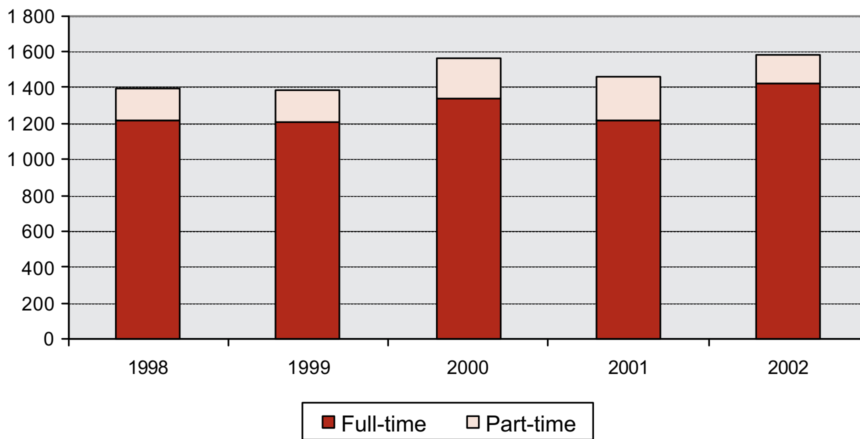



*Note*: Only campuses with complete data for the years 1997 to 2002 have been included in the above chart. Final Fringe ENTER scores encompass 95 per cent of course offers for places.

*Source:* Victorian Auditor-General's Office, based on data provided by the VTAC.

**4.30** Chart 4F indicates that the number of final year enrolments increased between 2001 and 2002 to the highest level in the past 5 years both in terms of total student numbers and the number of full-time students.

**CHART 4F**
**FINAL YEAR ENROLMENTS FOR DIVISION 1 COURSES**

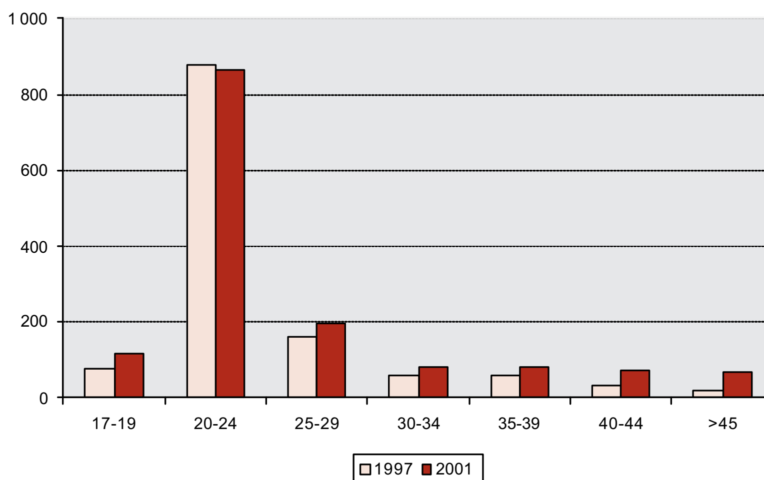



*Note*: Due to data being unavailable, 2002 enrolment figures for Ballarat University have been based on an average of the previous 4 years' enrolments.

*Source:* Victorian Auditor-General's Office, based on data provided by universities .

***4.31*** Final year enrolments in nursing have increased in all age groups compared with 1997, with the exception of the 20-24 year old age group, which has experienced a slight reduction (see Chart 4G). There has been a moderate increase in final year enrolments for older age categories.

**CHART 4G**
**AGE PROFILE OF FINAL YEAR ENROLMENTS**

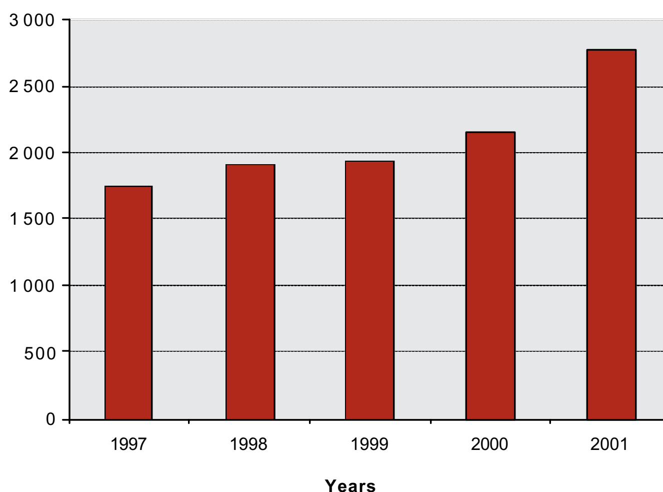



*Source:* Victorian Auditor-General's Office, based on data supplied by universities.

## Division 2 nurses

**4.32** Division 2 nurses complete a one year course offered by course providers in the VET sector. Chart 4H illustrates an increase in Division 2 course enrolments over the past 5 years.

**CHART 4H**
**DIVISION 2 COURSE ENROLMENTS**



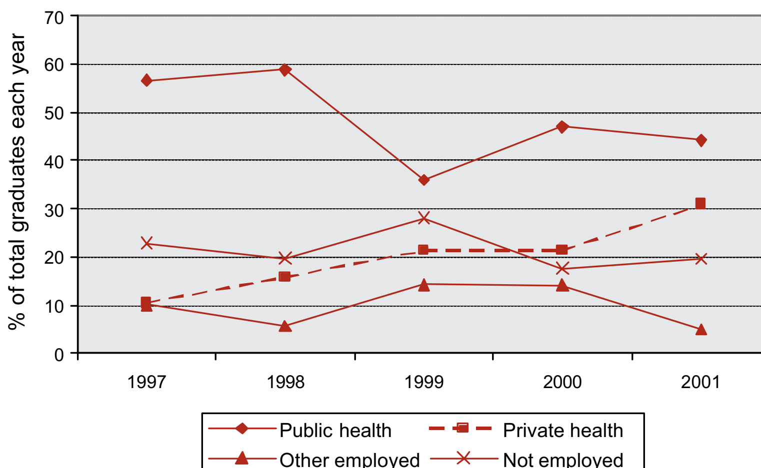

*Source*: Victorian Auditor-General's Office, based on data supplied by the Department of Education and Training.

## Nurse graduate destinations

**4.33** Graduates from a nursing course will not automatically take up a position within the profession. A nursing course may be used as a springboard into other health-related areas or non-health employment options.

**4.34** According to data from the Graduate Careers Council shown at Chart 4I, the best uptake of graduate nurses into the nursing profession (both public and private sectors) occurred in 2001 with 75 per cent of surveyed graduates accepting nursing positions. The lowest uptake occurred in 1999, with only 58 per cent of graduates surveyed entering the nursing profession.

**CHART 4I**
**DESTINATION OF NURSING GRADUATES**




*Source*: Graduate Careers Council of Australia, 2002.

**4.35** Chart 4I shows that in the last 5 years, the public health sector has had varying appeal to nursing graduates. There was a significant decline in nurses taking up positions within the sector in 1999. While this increased in 2000, some of the gains were lost in 2001.

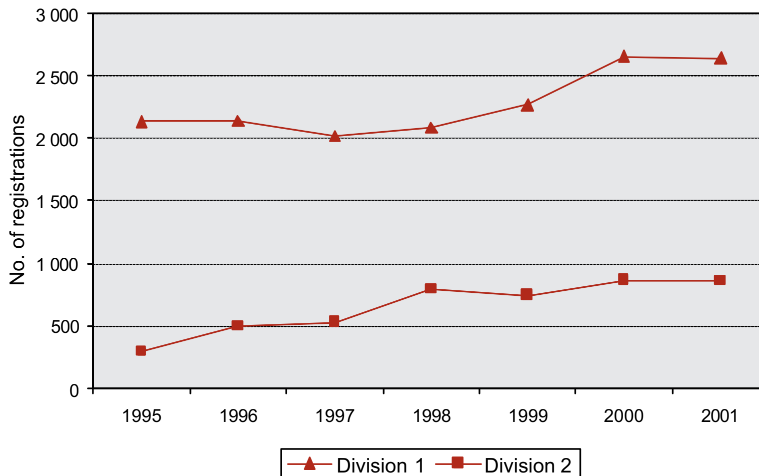
**4.36** The private health sector has experienced an increase in graduates taking up employment within the sector. This has grown from just over 10 per cent of graduates in 1997 to over 30 per cent of graduates in 2001, closing the gap on the public sector which attracted 45 per cent of graduates in the same year.

## NURSE DEMAND

### Nurse registrations

**4.37** The Nurses Board of Victoria is the statutory authority responsible for registering nurses to practice. Chart 4J represents initial registrations for the last 6 years.

**CHART 4J**
**INITIAL NURSE REGISTRATIONS, DIVISIONS 1 AND 2**

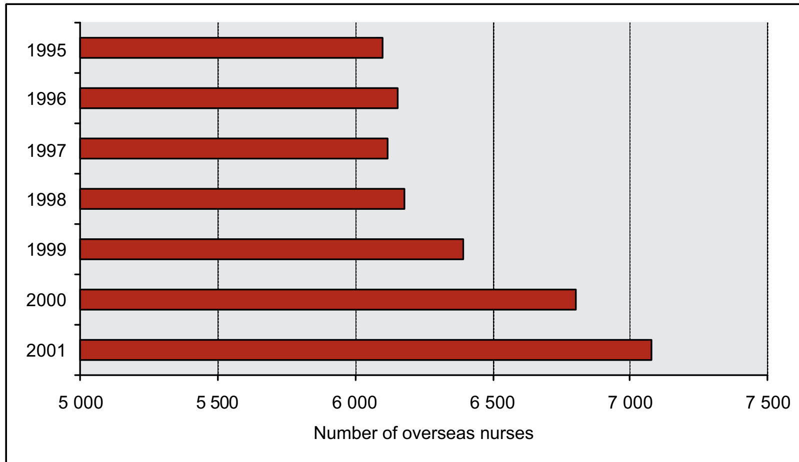



*Source*: Victorian Auditor-General's Office, based on data provided by the Nurses Board of Victoria.

**4.38** Initial registrations are consistently higher than student completions in any given year. These figures also represent nurses from interstate and overseas taking up Victorian registration in order to work in the State, as well as nurses who did not register immediately after graduation. In 2000, the Nurses Board of Victoria changed its policy to allow nurses formerly registered as Division 3 nurses (psychiatric nurses), to register as Division 1 nurses. Former Division 3 nurses may account for a small number of the initial Division 1 registrations in 2000 and 2001.

**4.39** Chart 4K shows the number of nurses from outside of Australia who have registered to practice as a nurse in Victoria. In 2001, there were a total of 7 077 nurses who fit this category, an increase of 277 from the previous year.

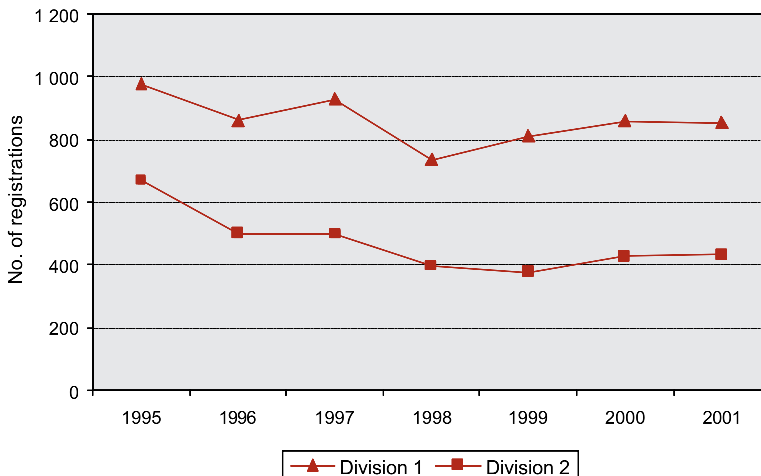
**CHART 4K**
**NUMBER OF REGISTRATIONS BY OVERSEAS NURSES**




*Source:* Victorian Auditor-General's Office, based on data provided by the Nurses Board of Victoria.

**4.40** Chart 4L shows people whom renew their nursing registration after it has lapsed. It includes nurses who have undertaken Re-entry Programs.

**CHART 4L**
**RE-REGISTRATIONS, DIVISIONS 1 AND 2**




*Source:* Victorian Auditor-General's Office, based on data provided by the Nurses Board of Victoria.

**4.41** Despite initiatives such as Re-entry and Refresher Programs, between 2000 and 2001 there has been virtually no change in the number of Division 1 re-registrations. There has, also been little change in the number of Division 2 nurses re-registering.

**4.42** Charts 4M and 4N show that the number of registered nurses not working or engaged in non-nursing work has steadily declined between the years 1993 and 1999.

**CHART 4M**
**DIVISION 1 NURSES NOT NURSING**

*Source*: Australian Institute of Health and Welfare 1997, 2001 and unpublished data.

**CHART 4N**
**DIVISION 2 NURSES NOT WORKING**

*Source*: Australian Institute of Health and Welfare 1997, 2001 and unpublished data.

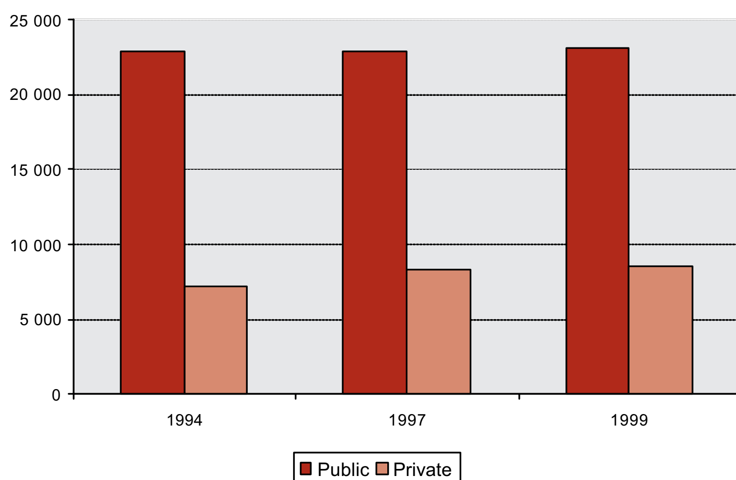
**4.43** Since 1993 there has been a significant decrease in the pool of non-working registered nurses. This decrease suggests that, in the future, other sources of nurse supply will become more important such as new graduates, interstate and overseas nurses.

## Characteristics of the nurse work force

### *Overall nurse work force numbers*

**4.44** Chart 4O shows that the number of Division 1 nurses employed in the Victorian acute public hospital sector has remained relatively constant when comparing 1994 and 1999 data. In this time, there has been a slight increase in the number of nurses working in the acute private hospital sector.

**CHART 4O**
**DIVISION 1 NURSES, ACUTE PUBLIC AND PRIVATE HOSPITALS**

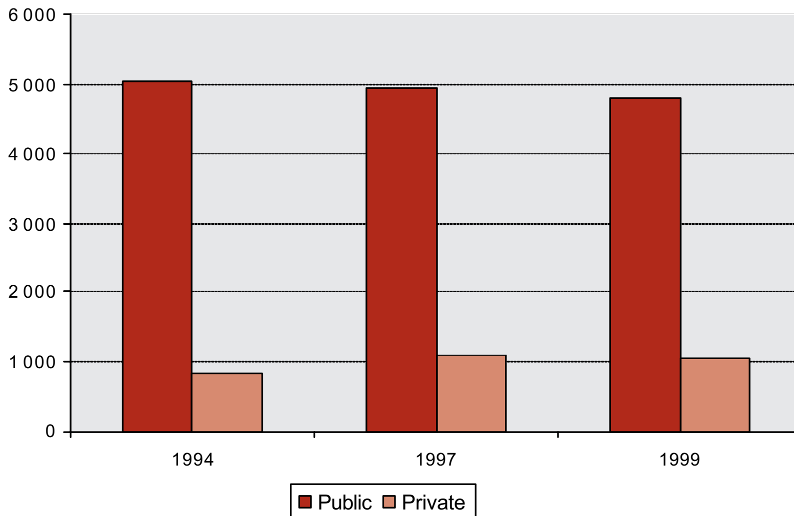



*Note*: Includes acute mental health services and excludes non-acute health services such as hospices and day centres.

*Source:* Australian Institute of Health and Welfare 1997, 2001 and unpublished data.

**4.45** The number of Division 2 nurses working in public hospitals decreased as at 1999 in comparison with 1994. The number of Division 2 nurses working in private hospitals increased in 1997 in comparison with 1994, with a slight tapering off in 1999. This is detailed in Chart 4P.

**CHART 4P**
**DIVISION 2 NURSES, ACUTE PUBLIC AND PRIVATE HOSPITALS**




*Note*: Includes acute mental health services and excludes non-acute health services such as hospices and day centres.

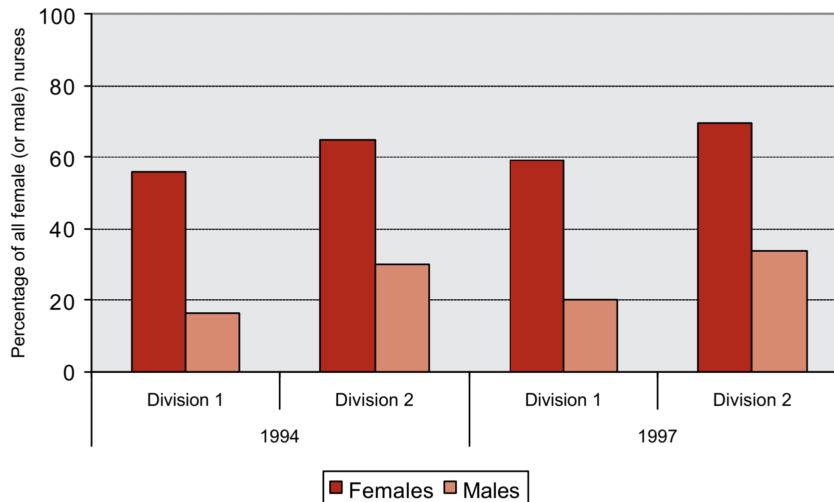
*Source*: Australian Institute of Health and Welfare 1997, 2001 and unpublished data.

**4.46** As detailed in Part 7 of this report, payroll data from acute public hospitals suggests there has been an increase of approximately 3 300 equivalent full-time nurses when comparing July 2000 and February 2002 data, with a total of approximately 24 600 equivalent full-time nurses in the system as at February 2002.

## Part-time work force

**4.47** Data from 1997, which represents the latest available information, indicates that at least half of Victoria's female nursing work force was part-time. Almost 75 per cent of the female Division 2 work force was part-time compared with 59 per cent of the female Division 1 work force. The percentage of part-time male nurses as a total of the male nursing population was significantly lower, as demonstrated in Chart 4Q.

**CHART 4Q**
**PART-TIME NURSING WORK FORCE BY GENDER**

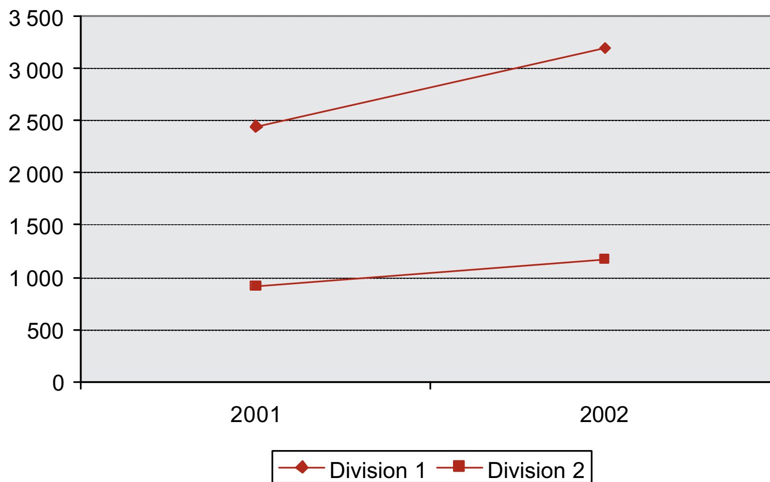



*Source*: Australian Institute of Health and Welfare 1997 and 2001. Data beyond 1997 not available.

## Nurse banks

**4.48** Nurses belonging to nurse banks are paid at casual rates and elect how often and when they wish to work. Nurse bank staff differ from agency nurses in that they only work within a designated hospital or hospitals. Our survey of hospitals indicates a significant increase in the number of nurses belonging to nurse banks, suggesting that the flexibility offered by this form of employment continues to attract a growing number of nurses (see Chart 4R).

**CHART 4R**
**NURSE BANK NUMBERS BY DIVISION**



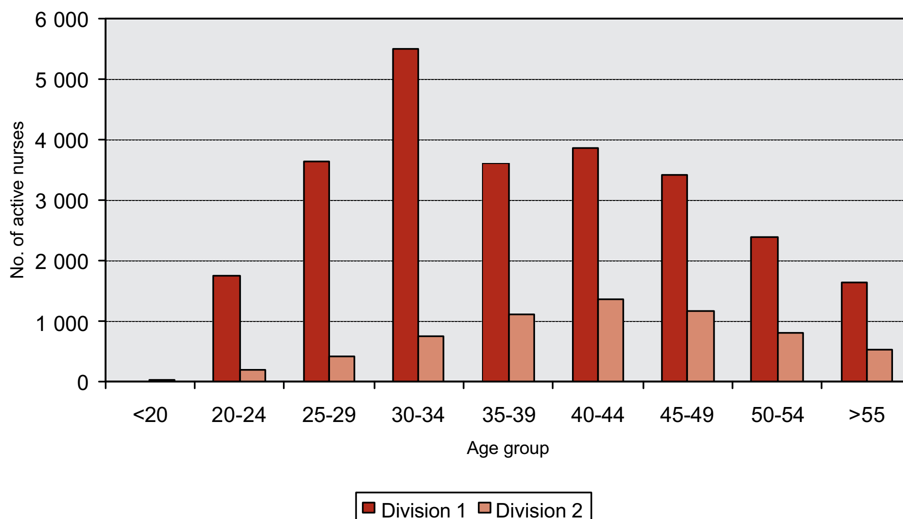

*Note*: Fifty-one acute public hospitals supplied data for both Divisions for both years.
*Source:* Victorian Auditor-General's Office survey, 2002.

**4.49** Given the predominance of females in the nursing work force (Australian Institute of Health and Welfare Data for 1999 indicates that 93 per cent of the nursing work force is female), the preference toward part-time work and more flexible working arrangements such as nurse banks is likely to remain a characteristic of the nurse work force.

### Ageing of the nursing work force

**4.50** The nursing work force is ageing. Chart 4S shows that in 2001, the largest group of Division 1 nurses working in nursing belonged to the 30-34 year old age group. For Division 2 nurses, the 40-44 year age group was the largest.

**CHART 4S**
**AGE PROFILE OF ACTIVE NURSES, DIVISION 1 AND DIVISION 2, 2001**

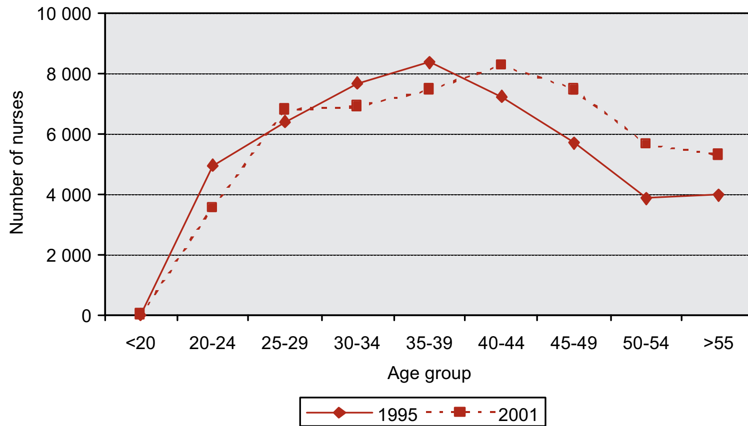



*Note:* Active nurses include casual, ongoing and fixed term.

*Source*: Victorian Auditor-General's Office, based on data provided by the Office of Public Employment.

**4.51** Chart 4T shows that in 2001, there were more Division 1 nurses in the 40 plus age groups than in 1995. In 2001, there were fewer Division 1 nurses in the 20-24, 30-34 and 35-39 year age groups than in 1995.

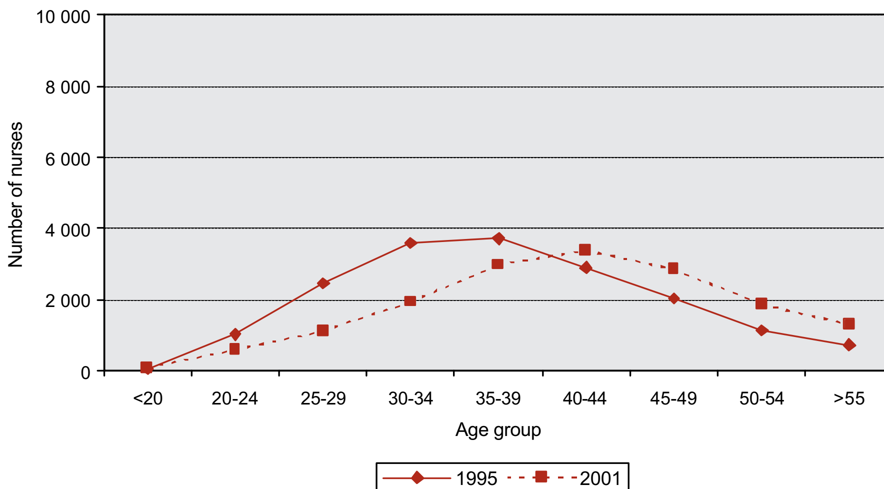
**CHART 4T**
**AGE OF DIVISION 1 NURSE REGISTRATIONS**




*Source*: Victorian Auditor-General's Office, based on data provided by the Nurses Board of Victoria.

**4.52** Division 2 nurses are also ageing with more nurses in the 40 plus age groups in 2001 than in 1995 (see Chart 4U).

**CHART 4U**
**AGE OF DIVISION 2 NURSE REGISTRATIONS**




*Source*: Victorian Auditor-General's Office, based on data provided by the Nurses Board of Victoria.

## KEY ISSUES FROM DATA ANALYSIS

**4.53** A number of important conclusions can be drawn from the analysis of the above data.

**4.54** Given the growth in the number of people being treated by the public hospital system, and the increasing portion of the general population aged greater than 75 years, there will be continuing growth in demand for hospital services and hence nursing staff. It is also highly likely that the majority of the nursing work force will continue to be female and part-time employed. The increase in the number of staff employed on a casual basis in hospital nurse banks suggests strong support for the more family-friendly working arrangements such employment offers.

**4.55** Recent recruitment strategies have been able to draw resources from a pool of qualified nurses currently not employed as nurses, but the size of this pool has now become significantly smaller. This is occurring in the context of an ageing nursing work force, with significant increases in the proportion of nurses over 40 years old. This suggests that other sources of supply (e.g. new graduates, and interstate and overseas nurses) will assume greater importance.

**4.56** While interest in nursing courses is increasing, there has been a reduction in total first year enrolments in Division 1 nursing courses in 2001 and 2002, although there has been a marginal increase in full-time enrolments. The data up to 2001 indicated that the public hospital sector had become a less attractive work destination for graduate nurses compared with the private health sector. While recent initiatives have been introduced to increase the attractiveness of public hospital employment, it is important that hospital management be encouraged to provide a working environment for nurses that builds upon progress to date.

**4.57** Most of these issues are considered in further detail throughout this report.

## Part 5

# DHS nurse work force planning

## INTRODUCTION

**5.1** The Nurse Policy Branch of the Department of Human Services (DHS) has an overall objective of ensuring that the Victorian health care system has access to a skilled nurse work force to meet the needs of the community. Another specialist unit within DHS undertakes work force studies covering health professions including nurses. These studies include projections of future nurse demand and supply, and the identification of potential over or under supply.

**5.2** The objective of the work force planning process is to identify the extent to which the supply of eligible employees matches demand. Work force planning is particularly important as it promotes the timely development of initiatives and changes to practices to address likely mismatches between supply and demand. This, in turn, reduces the likelihood of community needs not being met.

## BACKGROUND

**5.3** DHS conducted its first major work force study over 10 years ago. A chronology of key work force planning events is set out in Table 5A.

**TABLE 5A**
**KEY DHS WORK FORCE PLANNING EVENTS**

| *Key event* | *Date* |
|---|---|
| Limited study of nurse supply and demand | 1987 |
| First major study involving projections and a model of supply and demand over a 10 year period. | 1991 |
| Study examining recruitment and retention issues for critical care nurses | 1992 |
| Supply and demand model refined and major nurse supply and demand study conducted | 1993 |
| Study examining recruitment and retention issues for critical care nurses | 1996 |
| Major nurse supply and demand study completed | 1999 |
| An evaluation of 1991 and 1993 studies conducted by Health Outcomes International Pty Ltd | 1999 |

*Source*: Victorian Auditor-General's Office.

**5.4** In February 2000, the Minister for Health established the Nurse Recruitment and Retention Committee which released its final report in May 2001. The recommendations of the Committee and the implementation of these recommendations will have important implications for the effectiveness of nurse work force planning and action in the future.

**5.5** Conducted as a result of concerns with the adequacy of the nurse supply and demand model, the evaluation by Health Outcomes International Pty Ltd (HOI) concluded that the 1993 study could not have anticipated significant changes such as the introduction of output-based funding in the public hospital sector (casemix funding) and the reductions in hospital funding. As a consequence, the model could not accurately forecast nurse work force supply and demand. The review also found it difficult to determine how the model ensured that rural and regional needs and individual nursing specialties such as critical care were reflected in staffing requirements.

**5.6** In addition to criticisms contained in the HOI report, a submission prepared by the Australian Council of Deans of Nursing for the National Review of Nurse Education in October 2001 highlighted other concerns with the model. These included that separation rates did not vary with age and the assumption that only 50 per cent of nurse-graduates would take up nursing positions. This was identified as an understatement of the true position based on other data sources such as the Australian Bureau of Statistics' 1991 and 1996 population censuses.

**5.7** Prior to the release of HOI's evaluation of the 1991 and 1993 studies in March 1999, a further nurse work force study was commissioned by the DHS in May 1998 and published in March 1999. This study utilised a substantially similar modelling framework to the 1991 and 1993 studies. The 1999 nurse work force study provided limited explanation of forecasting methodology and input data. Not surprisingly, many of the concerns identified in the HOI evaluation were evident in this latest study such as the failure to distinguish between demand for Division 1 and 2 nurses, and the lack of identification of nursing specialties. In our view, it would have been prudent for DHS to have waited for the results of the HOI report before proceeding with the 1999 study.

**5.8** Given the high profile of work force issues in nursing and the availability of an evaluation of the previous model, we would expect DHS to have a forecasting model in place. This should be addressed urgently. Recommendations relating to this issue are included later in this Part of the report.

## EXISTING DATA SYSTEMS THAT SUPPORT WORK FORCE PLANNING

**5.9** We found that the data systems to support effective nurse work force planning continue to be inadequate. This view was also held by the Nurse Recruitment and Retention Committee (NRRC) which stated in its May 2001 report that *"Currently the Department of Human Services has no consistent data on the number of nurses working in the public hospital system ... This has major implications for monitoring the ongoing effectiveness of any recommendations produced by the Committee relating to nurse recruitment and retention, as well as for the ability to conduct routine labour force planning"*.

**5.10** The NRRC recommended *"That the Department of Human Services commissions regular payroll reports (at least three-monthly), reporting total numbers and total EFT of nurses by agency, by grade, by service and by full-time or part-time status".* (Recommendation 7*).* The Government accepted this recommendation and noted that *"Work is already underway to establish this reporting mechanism".*

**5.11** We have examined the key systems supporting DHS's work force planning and report our findings in the following paragraphs.

## Hospital payroll/human resource systems

**5.12** The ability of a hospital's payroll/HR system to provide reliable work force data on nurses is a fundamental input into DHS's work force monitoring and planning. As a minimum, this data should include nurse numbers by Division and specialty on a head count and equivalent full-time basis. Currently, the most recent data available is the total number of equivalent full-time nurses as at February 2002.

**5.13** Payroll reports provided to DHS by hospitals allow for the tracking of monthly trends in staff numbers, including nursing numbers over time. From 1 July 2001, most hospitals moved to new payroll systems.

**5.14** Our review of selected public hospitals (see Part 6 of this report) found that the transition to new payroll systems has not been smooth. In addition to the failure to perform basic payroll functions, these systems were unable to provide readily available data electronically for the 2001-02 financial year. This continues to be an unsatisfactory situation and requires further examination.

**5.15** The current minimum data set specifications do not require reporting of key work force characteristics such as age profiles and the relative composition of full and part-time employees by hospitals. As a result of our discussions with DHS, we have been advised that these specifications are being re-examined for the purpose of gathering key work force planning data.

**5.16** In March 2002, the Nurse Policy Branch began trialing nurse data collection from hospitals due to the unreliability or significant delays concerning the provision of standard nurse employment data from monthly payroll reports. The revised system relies on data being generated from rostering systems at a ward level.

## Nurse labour force survey

**5.17** One key source of data on nurses used by DHS (and the main source of data in the forecasting work undertaken in the 1990s) is the annual nurse labour force survey. In Victoria, the survey form is given to nurses as part of their annual registration (or renewal) with the Nurses Board of Victoria. The Australian Institute of Health and Welfare (AIHW) is provided with this data, which is weighted for non-responses and published.

**5.18** The publication of this data is not timely. Currently, the latest published nurse labour force survey data relates to 1997. The NRRC found that *"AIHW data publication is subject to significant time delays ..."* and recommended *"That the Department of Human Services, in conjunction with the NBV, publish the Victorian proportion of the AIHW labour force statistics in 'real time' as a separate report"* (Recommendation 5).

**5.19** The Government did not accept this recommendation, preferring that AIHW publish the data in a more timely manner. We understand that discussions have occurred between DHS and AIHW to seek ways for this to occur, however, no clear timetable has been established as yet. Given the importance of the timely release of this data, we believe DHS should continue to retain a fall-back position of publishing Victorian data as it becomes available, especially given the inability of hospital payroll systems to generate up-to-date nurse work force data.

## Other data collections

**5.20** In negotiations before the Australian Industrial Relations Commission in relation to the Enterprise Bargaining Agreement, the Commission directed DHS to collect data to ascertain the existing position on nurse-to-patient ratios within public hospitals, as this information was not currently available. As a result, DHS undertook 2 major nurse data collections from public hospitals in 2000 and 2001, supplemented by 4 other collections that included the usage of agency staff.

## Recommendation

**5.21** We recommend that DHS:

- conducts a Statewide review of the status of the implementation of recently introduced hospital payroll systems in terms of their capacity to meet operational and work force planning requirements; and
- retains the option of publishing the Victorian results of the nurse labour force survey as soon as they become available, consistent with yet to be published national results, if AIHW data publication continues to be subject to time delays.

## PROPOSED DATA REQUIREMENTS

### Work force data requirements

**5.22** Work force planning models forecast the future required number and skill profile of staff to enable planning and policy development. These models generally involve an analysis of the current demographics and skill levels of the work force, projections of work force supply, future work force requirements and the identification of potential gaps between supply and demand. An examination of historic trends and outside influences that lead to changing roles and work practices is also undertaken.

**5.23** The information we would expect to find in a work force planning model includes:

- changes in the rates of staff turnover, sick leave and overtime;
- changes in the mix of full-time and part-time employees;
- changes in the utilisation of the flexible work force (nurse agency and nurse bank staff);
- the number and types of positions that have been filled recently and an indication of how easy or difficult recruitment has been;
- the level of advertised vacancies, including areas of specialty;
- shifts in work force demographics; and
- the source of supply of nurses and changes in the rate of supply.

### Non-public sector data requirements

**5.24** DHS has the dual role of principal policy maker and legislator for the nursing profession in Victoria and the major employer of nurses within the State. In performing the former role, access to nurse work force data from non-public sector employers such as private hospitals, nursing homes and the range of not-for-profit agencies is of vital importance. In addition, the nurse work force is highly mobile across various sectors which also adds weight to the need for DHS access to whole of work force data. Currently, DHS has no legislative basis for the collection and reporting of data from these sectors.

**5.25** To improve the data collection process, we see value in DHS commencing dialogue with the key non-public sector employers to ascertain the extent of their data collection processes, any conditions under which data will be supplied and the willingness and capacity of these sectors to participate in this process.

### Recommendation

**5.26** We recommend that DHS initiate discussions with representatives of key non-public sector employers with a view to progressing the collection and reporting of comprehensive nurse work force data.

## Nurse work force supply data

**5.27** In relation to nurse supply data, the Nurse Policy Branch of DHS commissioned Deakin University to undertake a study of nurse supply for 2000 to 2002 which covers:

- trends in undergraduate nurse numbers relating to commencement, progression and completion rates;
- the number of prospective students nominating nursing as their first course preference;
- the relationship between first preferences and attrition;
- a comparison between completion numbers and first time registration;
- postgraduate numbers by specialty; and
- commencement and completion data for postgraduate students.

**5.28** This is an important initiative that could be enhanced if data were captured:

- Over a period of time to allow the identification of trends. Currently, the starting point is 2000;
- On the age profile of applicants and graduates. This may have implications for the development of future government initiatives (e.g. marketing the nursing profession to targeted audiences) as well as for employment conditions and job design considerations at the local hospital level;
- On the destination of students after graduation; and
- For trends in gender and ethnic origin.

## Recommendation

**5.29** We recommend that data collected on the supply of nurses be extended to include a longer time period to allow trend analysis, the destination of graduates and other key demographic characteristics such as age profiles of graduates.

*RMIT Bachelor of Nursing students in a lecture theatre.*

## BROAD STRATEGY FOR FINALISING DATA NEEDS

**5.30** To support effective work force monitoring and planning at both a hospital and DHS level, we would expect that DHS adopt the following approach:

- identify information needs and reporting requirements, e.g. timeliness;
- develop a statement of data requirements and definitions (e.g. what constitutes equivalent full-time positions, vacancies) to meet these needs;
- ascertain the extent to which hospital payroll and human resources systems are capable of providing the required data within quality and time frame parameters;
- identify the extent of gaps between data required and what is currently available, focusing not only on quantitative data, but also qualitative data on changes in nursing practice and the changing nature of the nursing work force; and
- develop a strategy to address any identified gaps, ensuring controls over data integrity.

**5.31** DHS has developed a generic framework for nurse work force studies which incorporates some of the elements listed above. The framework is described in more detail at paragraph 5.36.

**5.32** In order for this approach to be successful, it is critical that DHS and hospitals work as a partnership, with dedicated resources and agreed project management and reporting arrangements established.

### Recommendation

**5.33** We recommend that DHS, in partnership with hospitals:

- agree on an approach to address information requirements and data needs for work force planning and monitoring;
- assign clear responsibilities, milestones and resourcing to undertake and manage these tasks; and
- ensure that appropriate safeguards over data reliability and reporting requirements are built into the data collection process.

## CURRENT STATUS OF NURSE WORK FORCE STUDIES

**5.34** Since the publication of the 1999 nurse work force study, further work force projections have been delayed due to:

- The finalisation and implementation of the Enterprise Bargaining Agreement between the Victorian Hospitals' Industrial Association and the Australian Nursing Federation on 31 August 2000. The Agreement mandated nurse-to-patient ratios across differing categories of hospitals and various departments;
- Commissioning of a project to model supply and demand for human services. Stage 1 of the project focuses on acute health inpatient services and forecasts patient separations. This work underpins projections of demand for nurses working in acute care settings and should be factored into nurse work force studies;
- Difficulties in filling positions to undertake work force planning studies. The 2 staff members who are involved in work force studies were recruited in January 2002; and
- Concerns over the quality and timeliness of data as outlined above.

**5.35** As a consequence, the full extent of nursing shortfalls by specialty and geographic location is currently not known. DHS is also not in a position to forecast future demand for, and supply of, nurses. As well as placing DHS at a disadvantage in terms of internal policy development, DHS is also at a disadvantage in discussions with the Commonwealth Government over the need or otherwise for additional nursing places at universities.

**5.36** In November 2001, the Forecasting Unit developed a generic framework for work force studies within DHS. The framework consists of 9 steps including determining the need for the study, discussing broad study methodology, obtaining stakeholder sign-off, the determination of key variables (e.g. work force size, vacancy rates) and data sources, undertaking modelling, and preparing supply and demand forecasts. At a broad level, we believe this approach to be sound.

**5.37** While there are valid reasons why no nurse labour force study has been undertaken since 1999, steps need to be taken to implement the framework through:

- The development of an agreed implementation timetable; and
- In the interim, undertaking more limited studies that focus on particular aspects affecting the nurse work force that, in turn, will provide an input into a more detailed work force study. These limited studies could include:
  - the examination of nurse attrition rates;
  - employment patterns of nurses across specialties;
  - work force forecasting methodologies;
  - trends in nursing employment in private hospitals and the aged care sector;
  - trends in interstate and overseas migration of nurses;
  - the impact of nursing agencies on hospital employment of nurses; and
  - alternative models of nurse service delivery.

**5.38** Following a strategic planning forum in March 2002, DHS's senior executive management team has endorsed the need to address nurse work force issues as a matter of urgency. In this context, DHS has advised that the addressing of this issue has recently been included as a *Flagship Project* reflecting its high departmental priority. A study is currently being scoped that will likely involve, among other things, the forecasting of changes in demand for nurses and their supply. It will also consider the development of appropriate policy responses to major issues identified in the area of recruitment and retention.

## Recommendation

**5.39** We recommend that:

- a timetable for undertaking a comprehensive nurse work force study be agreed by DHS, including key actions that are required to meet milestones; and
- in the short-term, agreement is reached on the conduct of a limited number of small-scale studies, the results of which should be considered as part of a more comprehensive nurse work force study.

## A RISK-BASED APPROACH TO FUTURE IMPLEMENTATION

**5.40** We believe that DHS is well placed to develop its own risk-based approach to nurse work force planning, particularly the establishment of a nurse work force planning model and the conduct of a nurse work force study. In this regard, DHS can draw upon experience gained since 1991 in forecasting nurse work force requirements. In identifying risks and assessing factors such as their likelihood of occurrence and potential impact, we have divided our analysis into 2 aspects:

- previously identified areas of concern that have adversely affected prior work force studies; and
- a checklist of potential areas of risk that should be considered in implementing new work force studies.

### Previous concerns highlighted

**5.41** Previous evaluations of DHS's work force studies have identified concerns in relation to data reliability and the modelling framework. The lessons learnt from a risk minimisation perspective are detailed below.

#### *Data reliability*

**5.42** The key lessons learnt are:

- agreeing on data requirements and sources as well as data limitations in terms of meeting information needs and expectations of stakeholders;
- establishing a process for collecting nurse data from agreed sources that includes clear definitions and consistent formats and are easy for respondents to complete; and
- reviewing the data sources (such as payroll collections and nurse labour force survey) and devising a strategy to improve the quality and timeliness of the data.

#### *Modelling framework*

**5.43** The key lessons learnt are:

- undertaking a literature search of recent nurse supply and demand projections to see what is current best practice modelling;
- ensuring modelling logic:
  - is clearly articulated and transparent;
  - reflects the key factors that influence supply and demand; and
  - models supply of nurses separately from demand, is properly constructed in terms of supply and demand factors and key interrelationships between factors;
- ensuring modelling assumptions:
  - are clearly articulated and transparent;

  - soundly based on relevant historical trends; and
  - are regularly updated for changed circumstances or the latest data;
- engaging an independent labour market analyst to review logic and assumptions; and
- ensuring the model interface is user friendly and trialed with potential users.

## Potential areas of risk

**5.44** In conjunction with risks identified by previous evaluations, we believe that the following potential areas of risk be considered in the implementation of future studies:

- management of process;
- communication with stakeholders;
- identification of information needs;
- tendering process for contractors;
- expertise of DHS staff; and;
- quality control relating to:
  - system software;
  - performance monitoring of contractors; and
  - achievement of performance standards.

## Recommendation

**5.45** We recommend that DHS undertake a formal assessment of the risks associated with its work force planning arrangements to ensure the development of a robust forecasting model and a comprehensive approach to future nurse work force studies.

## Part 6

# Nurse work force planning by hospitals

## INTRODUCTION

**6.1** In managing their work force, hospitals have considerable autonomy regarding staff recruitment and retention issues. This Part of the report concentrates on how well hospitals undertake the forecasting of their future nurse work force requirements and their management of, and reporting on, recruitment and retention issues.

## AUDIT APPROACH

**6.2** The audit approach to examining hospital work force planning and management involved the following components:

- the development, piloting and distribution of a hospital questionnaire;
- the development of a review form to explore qualitative issues as part of an on-site review process; and
- use of experienced contractors to conduct on-site reviews.

### Hospital questionnaire

**6.3** Questionnaires were forwarded to all 92 acute public hospitals of which some hospitals represented multi-site campuses. Approximately 85 per cent of hospitals returned a usable questionnaire. Only one metropolitan hospital failed to respond.

**6.4** This excellent response rate provides a high level of confidence in the accuracy of the results. The questionnaire response rate also reflects highly on the professionalism of the management and staff of the public hospital system.

**6.5** The questionnaire sought information on the hospital's:

- nurses, in terms of demographic and other characteristics;
- nurse vacancies and recruitment;
- use of nurse agencies, nurse banks and nurse pools;
- incentives to attract and retain nurses; and
- extent of use of DHS initiatives to address nurse recruitment and retention.

### On-site reviews

**6.6** A total of 8 Metropolitan Health Services and 9 regional and rural hospitals were subject to on-site reviews. In addition to the completion of the review form, reviewers also examined evidence of the adequacy of:

- the hospital's strategic planning processes;
- the work force planning process including linkages to the strategic planning process and human resource management policies;

- tools used in work force planning such as the forecasting model for future supply and demand of nurses;
- hospital payroll and nurse rostering systems; and
- management reporting on the nurse work force.

**6.7** These Metropolitan Health Services and regional and rural hospitals account for approximately two-thirds of all Victorian inpatient public hospital bed days. In the absence of definitive data on current nurse numbers, the number of bed days is seen as a good indicator of nurse work load and hence nurse numbers.

## HOSPITAL NURSE WORK FORCE

**6.8** The number of nurses employed in the public hospital system, their specialty and age profile are included in Part 4 of this report. Set out below are the factors that are relevant to nurse work force planning and management considerations.

### Level of vacancies

**6.9** Given the difficulties in defining nursing vacancies within such a dynamic environment as the hospital system and the absence of a consistently applied definition, the results below should be regarded as indicative of where vacancies exist. DHS has indicated that the establishment of standard definitions is an area that is in the process of being addressed. We have also highlighted later in this Part of the report the importance of developing standard definitions as part of the hospital work force planning process.

**6.10** As at 1 February 2002, hospitals reported there were 1 296 Division 1 and 75 Division 2 vacancies on an equivalent full-time basis. This is within the context of a total hospital nurse work force of approximately 24 600 which represents a vacancy rate of 5.6 per cent. The vacancies occurred largely in the following specialties as detailed in Table 6A.

**TABLE 6A**
**VACANCIES (EFT) BY SPECIALTY, AS AT 1 FEBRUARY 2002**

| *Nurse specialty* | *Division 1* | *Division 2* | *Total* |
|---|---|---|---|
| Medical/ Surgical | 426 | 33 | 459 |
| Accident and Emergency | 202 | - | 202 |
| Intensive Care/Cardiac Care Unit | 183 | - | 183 |
| Midwifery | 129 | 2 | 131 |
| Peri operative | 114 | - | 114 |
| Paediatric | 92 | - | 92 |
| Psychiatric | 90 | 15 | 105 |
| Gerontic | 60 | 25 | 85 |
| **Total** | **1 296** | **75** | **1371** |

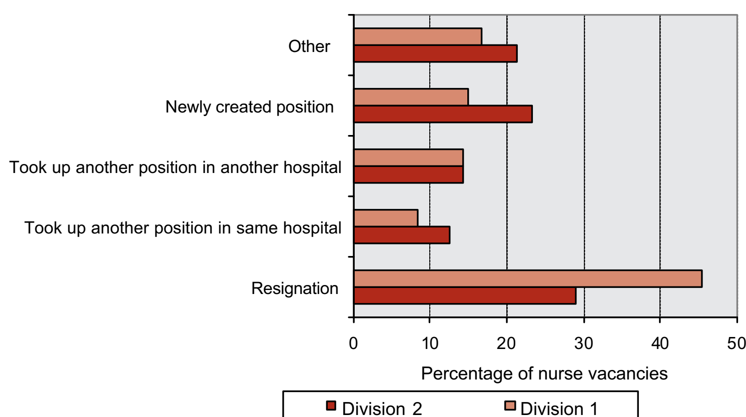
*Source*: Victorian Auditor General's Office survey, 2002.

**6.11** Around 95 per cent of reported vacancies were for Division 1 nurses. This percentage is greater than the overall share of Division 1 nurses in the acute hospital system of around 80 per cent. Most vacancies related to the general medical/surgical nursing positions which constitute the largest single group of nurses. For specialist nurses, the largest category of vacancies occurred in Accident and Emergency Departments and Intensive Care/Cardiac Care Units of hospitals.

## Reason for vacancies

**6.12** The main reasons for these vacancies are detailed in Chart 6B.

**CHART 6B**
**REASONS FOR VACANCIES BY DIVISION, 2001**



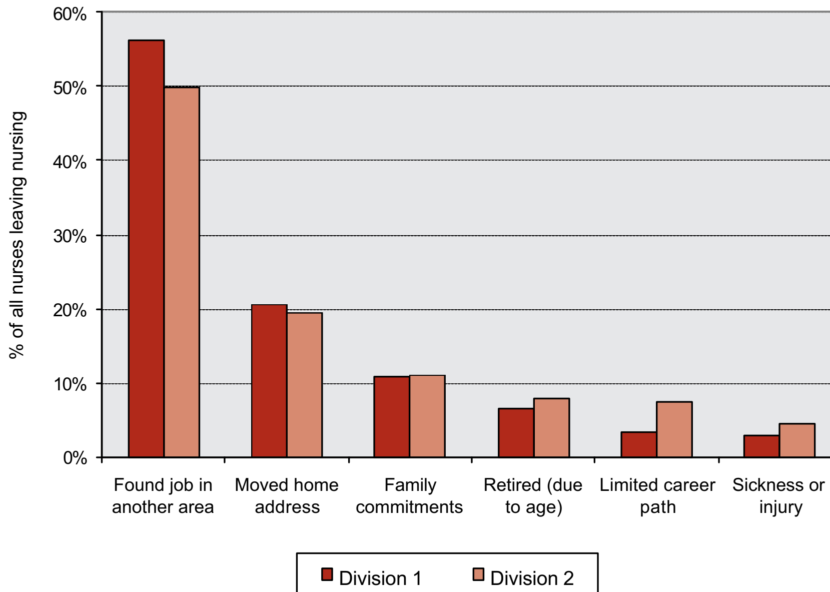

*Source:* Victorian Auditor General's Office survey, 2002.

**6.13** Resignation accounted for 45 per cent of all Division 1 and over a quarter of all Division 2 vacancies. The general nursing shortage, the backfilling of positions where nurses were on leave and the meeting of nurse-to-patient ratio requirements were the most commonly cited reasons within the “Other” category.

## Reason for resignations

**6.14** Hospitals indicated that the major reasons for nurse resignations were nurses finding alternative employment, moving home address or through family commitments as set out in Chart 6C.

**CHART 6C**
**DIVISION 1 AND 2 NURSES, MAJOR REASONS FOR RESIGNATION IN 2001**




*Source*: Victorian Auditor General's Office survey, 2002.

**6.15** Contrary to the findings in the Nurse Recruitment and Retention Committee's (NRRC's) report, few hospitals nominated other reasons for nurse resignation such as poor working conditions, increased workload, lack of job satisfaction or limited career path. This may suggest that these areas are not a concern or reflect differences in data collection methods. The NRRC asked nurses directly why they left nursing whereas our survey sought information from the human resources area of hospitals. It may also be that hospital data systems focus on nurse destination rather than the reasons for departure.

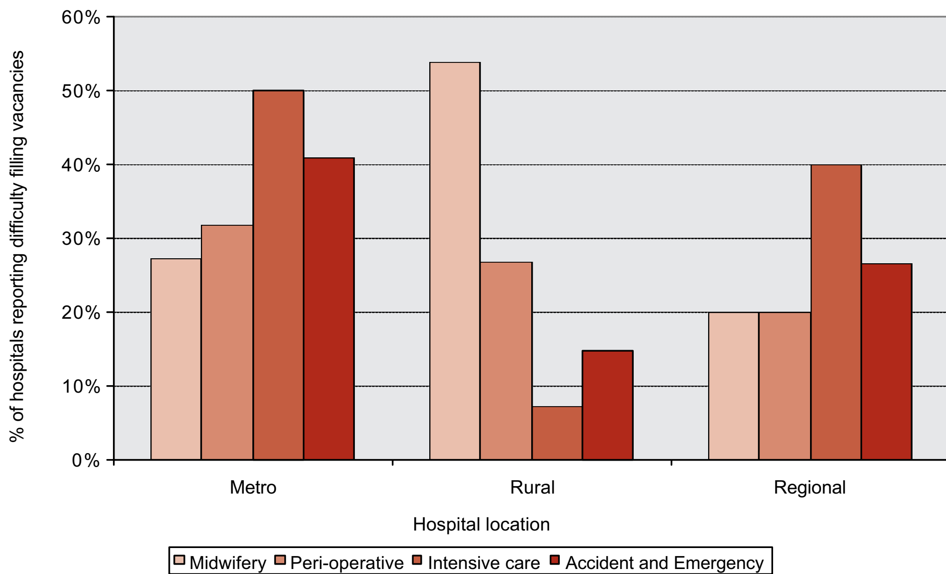
## Difficult-to-fill vacancies

**6.16** Hospitals identified difficulties in filling Division 1 vacancies in the following specialties:

- midwifery;
- peri operative;
- critical care/coronary care; and
- accident and emergency.

**6.17** Rural hospitals reported that they had particular difficulty in filling the midwifery and peri operative nursing vacancies. Metropolitan hospitals had the most difficulty filling vacancies in critical care and accident and emergency positions. The relative differences between the selected hospital categories in relation to these nurse specialties are illustrated in Chart 6D.

**CHART 6D**
**PROPORTION OF HOSPITALS WITH DIFFICULT-TO-FILL VACANCIES IN SELECTED SPECIALTIES**

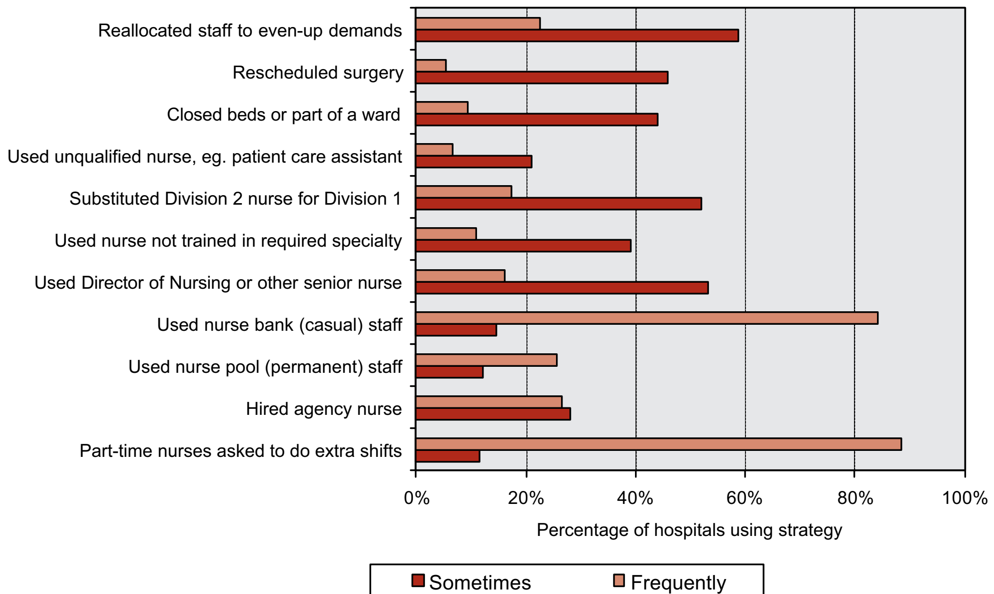



*Source:* Victorian Auditor-General's Office Survey, 2002.

## Strategies to staff difficult-to-fill vacancies

**6.18** Chart 6E depicts the strategies that were either frequently or sometimes used by hospitals to deal with difficult-to-fill nursing vacancies.

**CHART 6E**
**STRATEGIES USED TO HANDLE DIFFICULT-TO-FILL NURSE VACANCIES**




*Source:* Victorian Auditor General's Office survey, 2002.

**6.19** The most common strategies adopted by hospitals in filling vacancies were requesting part-time nurses to undertake additional shifts and the use of nurse banks.[1] Over 3 times as many hospitals used nurse bank staff on a frequent basis than other staffing options such as agency staff or staff from nurse pools.[2]

**6.20** Approximately 50 and 70 per cent of hospitals, respectively, indicated that they either sometimes or frequently use staff not trained in a specialty or substituted a Division 2 nurse for a Division 1. Approximately 50 per cent of hospitals indicated they either frequently or sometimes closed beds/wards or rescheduled surgery in the management of nurse vacancies.

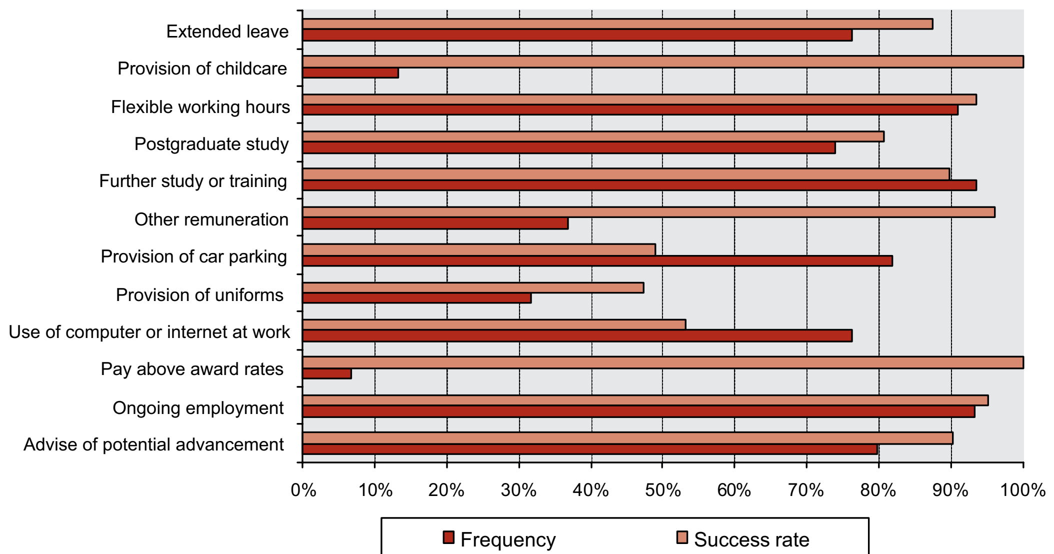
## Incentives to fill vacancies

**6.21** Chart 6F details the types of incentives used by hospitals to fill vacancies and their assessment of the success of these incentives in attracting and retaining staff.

[1] Nurse banks are administered by hospitals. Nurse bank staff are paid casual rates and make themselves available to undertake rostered shifts. Their availability is usually negotiated with the hospital.

[2] Staff in a nurse pool are permanent staff. They are not usually attached to a ward but assigned where required. They are usually rostered for a minimum number of shifts.

**CHART 6F**
**INCENTIVES USED TO ATTRACT OR RETAIN NURSES**




*Note:* Frequency is calculated as those hospitals that indicated they used the incentive divided by all those that responded to the question. Success rate is based only on those hospitals that used the incentive. It is calculated as those hospitals that indicated that the incentive was a success divided by all those that responded to the question.

*Source*: Victorian Auditor General's Office survey, 2002.

**6.22** The incentives that were the most frequently used were:

- offering applicants ongoing employment;
- providing opportunities for further training;
- providing flexible working hours;
- advising potential applicants of advancement; and
- providing car parking.

**6.23** An incentive often cited by private sector nursing agencies as important, namely the provision of uniforms, was offered by only one-third of hospital respondents. Internet access was offered by approximately three-quarters of hospitals. Only 13 per cent of hospitals offered child care assistance and 7 per cent cited paying above award rates as an incentive.

**6.24** Of those incentives used by hospitals, most were rated as highly successful in attracting or retaining staff. Two incentives had 100 per cent success rates: paying above award rates and providing childcare assistance (although few hospitals offered these). Other incentives with success rates of over 90 per cent include:

- offering applicants ongoing employment;
- providing other remuneration; and
- offering flexible working arrangements.

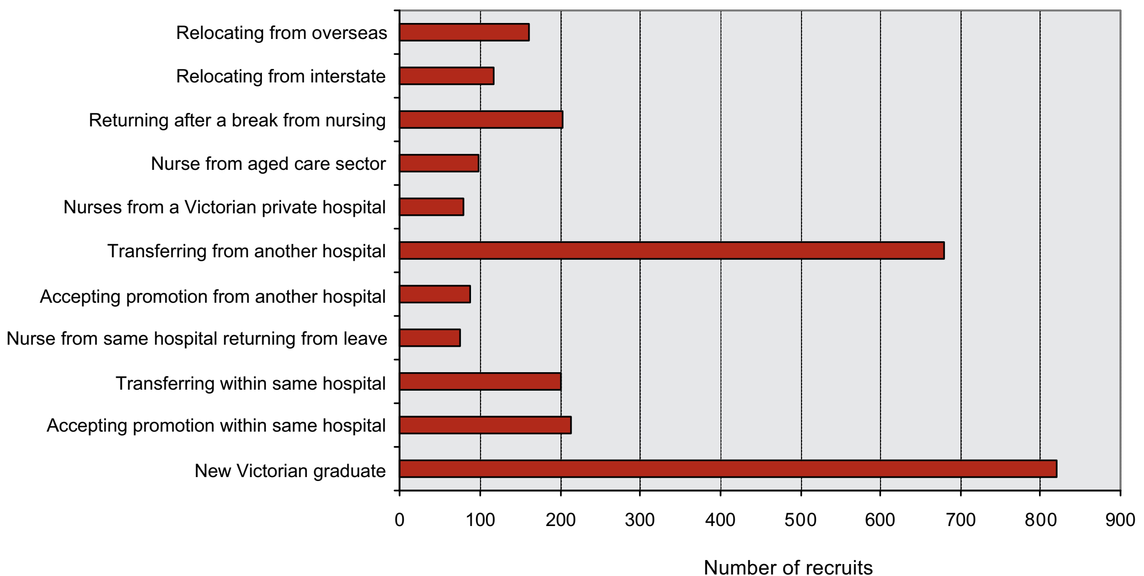
**6.25** Three incentives were rated as successful by only about half of hospitals that had utilised these strategies. These were:

- offering internet access;
- providing uniforms; and
- offering car parking.

## Source of recruits

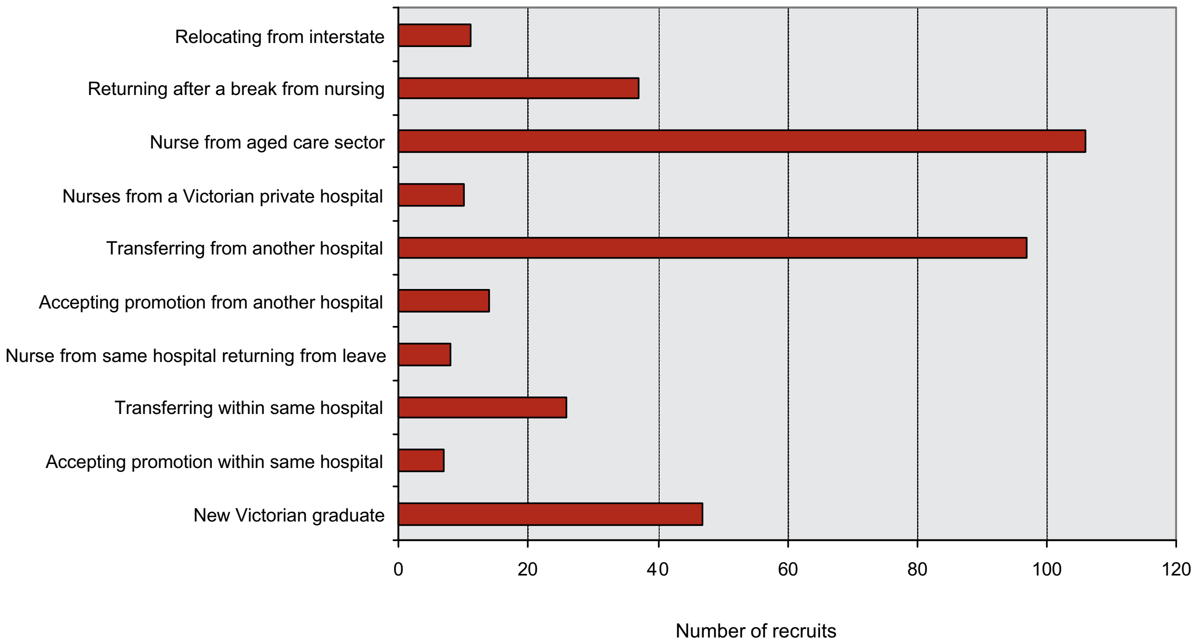
**6.26** Charts 6G and 6H show the source of new recruits into Victorian public hospitals in 2001 for Division 1 and Division 2 nurses.

**CHART 6G**
**MAJOR SOURCES OF DIVISION 1 RECRUITS, 2001**




*Source:* Victorian Auditor General's Office survey, 2002.

CHART 6H
MAJOR SOURCES OF DIVISION 2 RECRUITS, 2001




*Source:* Victorian Auditor General's Office Survey, 2002.

**6.27** During 2001, the major sources of new applicants for Division 1 nurse positions were new graduates from universities or nurses transferring from another hospital. Thirty-four hospitals reported recruiting Division 1 nurses from interstate (116 nurses) and 25 hospitals reported attracting nurses from overseas (160 nurses).

**6.28** For Division 2 nurses, the major source of new applicants was the aged care sector. It is highly likely that enhanced pay and conditions within the public hospital system is an important attraction for nurses working within the aged care sector. As a result of the Enterprise Bargaining Agreement in August 2000 (refer to Part 5) there is a significant pay differential between nurses working in the private and not-for-profit aged care setting and those working in public hospitals.

## NURSE WORK FORCE PLANNING AND MANAGEMENT

**6.29** Nurse work force planning and management support systems were reviewed as part of an on-site examination of selected metropolitan health services, regional and rural hospitals. The results of this examination are set out under the following headings:

- work force planning;
- systems supporting work force planning; and
- work force management reporting.

**6.30** We also have highlighted in Appendix B examples of good practice in the above areas as well as recruitment and retention initiatives.

## Work force planning

**6.31** Fifteen out of the 17 hospitals that we reviewed had a strategic plan. Forty per cent of these plans included details of the hospital's work force requirements. Only 5 of the 17 hospitals had a separate work force planning document. For the majority of other hospitals, work force planning was addressed through other mechanisms such as a recruitment and retention strategy rather than a work force plan per se. Three hospitals had no formal documented mechanisms in place to address work force issues.

**6.32** In terms of models utilised for forecasting nurse work force requirements, 9 out of 17 hospitals indicated that they had a model in place. Only one model was able to provide forecasts beyond the following year. In contrast, the National Health Service Trusts in the United Kingdom are expected to produce work force plans covering a 5 year time period, taking into account details such as the required skill mix and levels of attrition.

**6.33** Most hospitals did not have a rigorous approach to forecasting. There was limited emphasis on variables such as attrition rates and a limited number of data sources to input into the forecasting model.

**6.34** Reliable and regularly updated forecasts of nursing supply and demand would be invaluable not only from a local hospital work force planning perspective, but at a Statewide level. Given that it takes at least 3 years to educate a Division 1 nurse in Victoria, the aggregation of hospital data over a 3 year forecasting horizon would provide decision-makers at DHS and at tertiary institutions with a sounder basis for effective decision-making.

**6.35** While hospitals have a large level of autonomy for the day-to-day management of their staff, we believe there is an argument for DHS to take a leadership role in improving the standard of hospital work force planning across the State given its importance not only at a local level but in providing DHS with access to Statewide nurse work force data to underpin its monitoring and policy development role.

## Systems supporting work force planning

**6.36** All but one hospital had a rostering system in place. There was wide variation of practice between hospitals with some having a completely computerised system, others a completely paper-based system, while some hospitals had a combination of both. Fewer than 20 per cent of systems could automatically import payroll or human resource details such as staff names and leave details into the rostering system. Only about a quarter of rostering systems had the ability to automatically calculate nurse work force management information such as vacancy rates, overtime usage and the usage of nursing agency staff.

**6.37** An examination of hospital payroll and human resource management systems revealed that 9 out of 17 hospitals had changed their payroll systems in 2001 with a further 2 planning on changing systems in 2002. There were high levels of dissatisfaction with the new payroll systems over system errors. Payroll problems have included the following:

- multiple or inaccurate pay slips;
- limited user support provided by the supplier;
- a lack of report generation capacity; and
- the duplication of information between systems such as rostering and payroll.

**6.38** The priority of hospitals with payroll system concerns was on rectifying these problems. As a consequence, hospitals are currently less concerned with the generation of human resource management reports. Some hospitals indicated it was too soon to make judgements on the performance of new systems however, given the central importance of payroll systems and the high levels of dissatisfaction expressed by hospitals, an examination covering the recently introduced payroll systems, including the tendering and selection processes, would seem to be prudent.

## Work force management reporting

**6.39** In terms of reporting on broad work force numbers, management from three quarters of hospitals reviewed generate reports of nurse numbers. In addition while 12 hospitals reported using agency staff, only 9 generate regular reports on agency use.

**6.40** In other key areas associated with nurse work force planning and management, there was even less management information available. Only 6 out of the 17 hospitals generated management reports on nurse retention. Of these, most hospitals indicated that the reports were not timely and were prepared on an ad hoc basis. Similarly, only 4 out of the 17 hospitals prepared any management reports on recruitment activity such as the level of difficulty in filling hard-to-staff nursing specialties. Only 2 of these hospitals felt this information was sufficiently reliable to provide a sound basis for decision-making.

## Recommendation

**6.41** We recommend that:

- Hospitals give a higher priority to introducing improved work force planning and associated system support; and
- DHS, in consultation with hospitals, develop a pilot program at selected sites for various categories of hospitals to upgrade the standard of hospital work force planning. This would include the provision of standard nurse work force data definitions and adequate system support, particularly to allow electronic transfer of data from hospitals to DHS.

# Part 7

# Initiatives for nurse recruitment and retention

## INTRODUCTION

**7.1** This Part of the report is divided into 2 major segments. The first concentrates on the Department of Human Services (DHS) initiatives to increase the number of effective full-time (EFT) nurses in public hospitals. The second segment focuses on DHS' initiatives to restrict the number and cost of agency staff in public hospitals.

## NURSE RECRUITMENT AND RETENTION INITIATIVES

### Background

**7.2** A number of factors had a direct impact on the nurse work force within the public health system including:

- stipulation of nurse-to-patient ratios in the 2000 Enterprise Bargaining Agreement (EBA) which increased public hospital demand for nurses by an additional 1 650 EFT positions[1];
- increasing numbers of nurses moving to agency employment which increased the difficulty of public hospitals in filling vacancies;
- the escalating agency nurse costs in the public health system which placed financial strain on public hospitals; and
- large numbers of qualified nurses no longer working in the public system.

**7.3** In February 2000, the Minister for Health established the Nurse Recruitment and Retention Committee. The Committee produced a final report in May 2001 with recommendations to improve nurse recruitment and retention. Consistent with other studies, the Nurse Recruitment and Retention Committee identified the following key factors that impact on recruitment and retention:

- heavy work loads;
- inflexible working arrangements that are not family friendly;
- working conditions; and
- lack of career opportunities.

**7.4** In September 2000, DHS launched the Victorian Nurse Recruitment and Retention Strategy to recruit and retain nurses in the public health system. This Strategy has been largely influenced by the Committee's interim report. In November 2000, DHS established the Nurse Policy Branch headed by a Principal Nurse Advisor. It is the Nurse Policy Branch that has the main responsibility for the development and management of the initiative programs that constitute the Strategy.

[1] In addition to the 1 650 EFT provided to meet nurse-to-patient ratios, a further 150 positions were also provided for Assistant Director of Nursing, Clinical Nurse Consultant and Nurse Educator positions.

**7.5** The Treasurer's Speech in relation to the 2002-03 State Budget indicated that an additional $464 million over 4 years would be provided to enable public hospitals to treat 30 000 more patients and employ 700 extra nurses and health workers.

*An Alfred Hospital nurse treating a patient on a trolley.*

## Recruitment and retention initiatives

**7.6** In September 2000, DHS launched a major print and radio advertising program to recruit and retain nurses in the public health system. The advertising campaign focused on the improved nurse working conditions and salaries brought about by the EBA, and the availability of support for nurses to either return to the work force or to improve their qualifications.

**7.7** The initiatives that constitute the DHS Nurse Recruitment and Retention Strategy include:

- Recruitment initiatives
    - free Refresher and Re-entry Programs;
    - funding undergraduate rural clinical placements;
    - additional funding for Division 2 nursing places; and
    - promotion of nurse banks.
- Retention initiatives
    - scholarships for post-registration and postgraduate study;
    - study leave for Division 2 nurses;
    - midwifery up-skilling for rural and remote areas;
    - funding of facilities to provide Continuing Nurse Education; and
    - nurse practitioner models of advanced practice.

**7.8** Other initiatives that were delivered as part of the EBA include:

- paid study leave for Division 1 nurses; and
- funding of senior nursing leadership and education appointments.

**7.9** Expenditure on DHS initiatives is contained in Table 7A.

**TABLE 7A**
**DHS EXPENDITURE ON INITIATIVES: ACTUAL, 1998-99 TO 2000-01 AND PLANNED, 2001-02 AND 2002-03**
($)

| | *1998-99* | *1999-00* | *2000-01* | *2001-02* | *2002-03* | **Total** |
|---|---|---|---|---|---|---|
| Refresher and Re-entry Programs | n.a. | n.a. | 776 107 | 5 126 321 | 276 525 | **6 178 953** |
| Additional Division 2 Nursing Places | n.a. | n.a. | 5 227 000 | n.a. | n.a. | **5 227 000** |
| Promotion of Nurse Banks | n.a. | n.a. | n.a. | n.a. | n.a. | No expenditure to date |
| Postgraduate Scholarships | n.a. | n.a. | 520 000 | n.a. | n.a. | **520 000** |
| Study leave for Division 2 nurses | n.a. | n.a. | 241 000 | 140 000 | n.a. | **381 000** |
| Rural Clinical Placement funding | n.a. | n.a. | 200 000 | n.a. | n.a. | **200 000** |
| Midwifery Up-skilling Program | n.a. | n.a. | 475 000 | n.a. | n.a. | **475 000** |
| Continuing Nurse Education Program | 2 900 000 | 3 900 000 | 3 882 000 | 2 000 000 | n.a. | **12 682 000** |
| Nurse Practitioner Project | 105 000 | 606 400 | 1 763 031 | 164 762 | n.a. | **2 639 193** |
| **Total** | **3 005 000** | **4 506 400** | **13 084 138** | **7 431 083** | **276 525** | **28 303 146** |

*Note*: n.a. signifies that no expenditure has been made or that expenditure in this area is not part of the strategy.

*Source*: Department of Human Services, Nurse Policy Branch 2002.

**7.10** DHS has advised that the Nurse Practitioner Project, Postgraduate Scholarships, Promotion of Nurse Banks and the Continuing Nurse Education Program are long-term initiatives. Funding for Refresher and Re-entry Programs will continue at least until 2002-03. The Nurse Policy Branch of DHS has indicated their intention to seek approval to fund these programs beyond this date.

**7.11** The majority of DHS initiatives that constitute the Nurse Recruitment and Retention Strategy already existed in some form prior to the strategy launch. The unique features of this Strategy were:

- additional funding for certain nurse work force programs, projects and strategies;
- the promotion of programs through advertising, discussion forums and nurse work force summits; and
- the funding of senior nurse leadership and education appointments as part of the EBA.

**7.12** We selected 3 initiatives for review on the basis of their significant impact on nurse recruitment and retention in the acute public health system. These initiatives were also significant in terms of their cost. They were:

- Refresher and Re-entry Programs;
- Postgraduate Scholarships; and
- Continuing Nurse Education Program.

**7.13** These 3 initiatives are the predominant focus of this Part of the report. Other DHS initiatives are detailed below.

## Additional DHS initiatives

DHS is currently supporting and/or funding a range of other nurse recruitment and retention initiatives. Some of these initiatives pre-date the Nurse Recruitment and Retention Strategy. Many have received additional funding since the initiation of the Strategy.

**Nurse Practitioner**

The Nurse Practitioner project is aimed at promoting the development of nurse practitioner models that can enhance health care delivery and significantly extend career pathways for senior clinical nurses. To date, 27 projects have been funded by DHS to give nurses the opportunity to undertake training so that they achieve a higher level of clinical practice within a specialty area as a key member of a health care team. Nurses who achieve this level will be eligible to be endorsed as Nurse Practitioners with the Nurses Board of Victoria and paid at a higher level.

The Nurse Practitioner project is to continue until 2010 with funding of between $700 000 and $900 000 per annum. In 2001, however, additional funds were carried over from previous years, resulting in the funding of 18 Nurse Practitioner projects.

**Hospital nurse banks**

While the hospital nurse banks are not a new initiative, DHS has been promoting them through dialogue with Directors of Nursing and through its Nurse Summit of February 2002.

**Rural clinical placements for under graduates**

Under this initiative, students are funded to undertake their clinical placements in a rural setting as a means of familiarising themselves with a rural way of life. As a result of this experience, students may be more amenable to working within rural Victoria after graduation.

**National rural and remote Midwifery Up-skilling Program**

This program is a joint Commonwealth-State funded initiative over a 3 year period with funding of $1.375 million based on the up-skilling of 415 midwives by August 2004 throughout remote and rural parts of Victoria. The aim of the program is to provide expectant mothers with access to quality care within their rural communities.

**Additional Division 2 nursing places**

In 2001, DHS committed $5. 227 million to increase the numbers of Division 2 nurse places from 2 157 in 2000 to 2 775 in 2001.

## Audit approach

**7.14** The 3 initiatives were reviewed by:

- on-site examination of 8 Metropolitan Health Services and 9 rural hospitals;
- survey of 92 public hospitals offering acute services;
- telephone survey of 10 nurses from each of the selected initiatives; and
- assessment of DHS data and evaluation reports.

**7.15** Our assessment considered the following:

- adequacy of DHS documentation (e.g. eligibility guidelines, objectives of program) and administration processes;
- identification of implementation problems and the potential to introduce improvements;
- how the hospitals managed their involvement with each initiative from the original submission for funding to an evaluation of outcomes; and
- the effectiveness of each initiative.

### *Refresher and Re-entry Programs*

**7.16** The Refresher and Re-entry Programs are recruitment initiatives directed towards qualified nurses who have not been working as nurses for extended periods of time. The aim of the programs is to train nurses to a work-ready level. Refresher and Re-entry Programs have been delivered in Victorian hospitals for many years. Since July 2000 however, DHS provided additional funding for these programs. Program details are as follows:

- **The Refresher Program** is directed at those nurses and midwives who are registered but not employed in nursing, and have had less than 10 years out of the work force. The program is also available to working nurses who want to undertake Refresher Programs in particular clinical specialties. This program is conducted full-time over a 5 week period and is free to all eligible nurses. Registered nurses undertaking the training are to be paid at the salary cost of a new nurse graduate. Division 2 nurses receive a salary at the beginning level practitioner rate. On completion of the program, nurses and midwives are to be offered a position within the hospital at no less than 30 hours a fortnight; and
- **The Re-entry program** is directed at those nurses or midwives who were either no longer registered or who had been out of the work force for 10 years or more. The program is conducted over a 3 month period on a full-time basis and is provided free to all eligible nurses. Grants of $1 700 are paid to metropolitan nurses and $2 200 to rural nurses, with 50 per cent payable on completion of the course providing the nurses are employed in a public facility. On completion, nurses and midwives are to be offered a position of no less than 30 hours a fortnight.

**7.17** Prospective applicants for these programs could apply through either the DHS' Nurse Recruitment Centre (NRC) or directly to the hospital or metropolitan health service. The NRC forwarded applications to hospitals who organised the programs.

**7.18** We found that extending the funding to Refresher and Re-entry Programs was a sound short-term recruitment strategy to attract qualified nurses into the nursing workforce. We also found that nurses undertaking these courses were under no obligation to take positions in public hospitals and some hospitals had no vacancies for nurses completing these programs. Therefore, in order to maximise the return on expenditure, future funding of Refresher and Re-entry training places should be linked to the employment of nurses in public facilities upon successful course completion. Hospitals should be required to provide a clear commitment to fund places for nurses who complete these courses. Course applicants, in turn, should be selected on the basis of an agreement to accept positions in public facilities for a specified period of time.

**7.19** In response to the advertising campaign of September 2000, more than 5 000 nurses made inquiries regarding these programs. DHS funded 735 places in Refresher Programs and 873 places in Re-entry Programs in 2000-01. DHS is unable to determine the number of completions in Refresher courses. To date, there have been 480 completions in the Re-entry Programs, with a number of nurses yet to complete their training.

**7.20** In September 2001, DHS conducted a limited survey of course participants. This involved contacting 666 of the 1 608 nurses who registered through the DHS Nurse Recruitment Call Centre. The 952 nurses who registered directly through hospitals were not surveyed as DHS did not have their contact details.

**7.21** In the future management of these programs, a significant improvement is required in the collection of data for monitoring and evaluation purposes in terms of details on:

- course applicants;
- nurses commencing courses;
- the number completing courses; and
- destination of nurses after course completion.

**7.22** The results of DHS' survey are contained in Table 7B.

**TABLE 7B**
**DHS SURVEY OF REFRESHER AND RE-ENTRY PROGRAM PARTICIPANTS, 2001**

| | |
|---|---|
| 72 per cent | working in a nursing capacity post-program |
| 51 per cent | working in the facility where they completed their training |
| 41 per cent | working in Metropolitan Melbourne, 32 per cent in rural Victoria, 45 interviewees did not answer this question – a number were waiting for registration |
| 11 per cent | working full-time |
| 31 per cent | working 3-4 shifts per week |
| 12 per cent | working 1-2 shifts per week |
| 64 per cent | working in the public sector |
| 8 per cent | working in agencies - a number in concert with employment in public facilities |
| 2 per cent | not working in nursing post completion |

*Note*: Survey return rate was 80 per cent.
*Source*: Nurse Policy Branch DHS, 2001.

**7.23** Findings from our on-site review of hospitals indicated that while hospitals were satisfied with nurse retention rates following the completion of both Refresher and Re-entry Programs, several hospitals commented on the following:

- the Refresher initiative was advertised to the public prior to the hospital being fully briefed on the program;
- some nurses who completed the Refresher Program were still not work-ready; and
- accreditation of the Re-entry Program content by the Nurses Board of Victoria was slow and frustrating.

**7.24** The results of our hospital survey indicated that three quarters of the hospitals felt the Re-entry Programs had either a moderate or major impact on bolstering their local nurse work force. For the Refresher Programs, the corresponding figure was nearly 70 per cent.

**7.25** Findings from our telephone survey of 10 Refresher course participants indicate:

- the majority of nurse interviewees were satisfied with the quality and content of the courses;
- half of interviewees were working 30 hours or more per week; and
- all interviewees, except one, will continue to work in the public health system over the next 12 months.

**7.26** For the Re-entry course, 8 of the 10 interviewees indicated they would remain within the public hospital system within the next 12 months. All interviewees indicated that the Re-entry program had equipped them for their current role.

## Postgraduate Scholarships

**7.27** The introduction of scholarships was designed to increase the number of nurses undertaking postgraduate studies in areas of clinical shortage. Scholarships cover the cost of the Higher Education Contribution Scheme (HECS) thereby significantly reducing the cost of study for nurses. The postgraduate courses run for 6 months full-time. Upon successful completion, nurses are awarded a Graduate Certificate in Advanced Clinical Nursing for a particular nursing specialty.

**7.28** In 2001, postgraduate courses were offered in emergency, critical care, peri operative and neonatal intensive care as per the Nurse Recruitment and Retention Committee Report recommendations. It is intended that different clinical areas will be targeted each year depending on identified areas of nurse shortage. DHS offered funding for 201 scholarship places in June 2001 at a cost of between $3 000 to $4 300 per student. Scholarship funds are paid directly to universities.

**7.29** In 2001, 158 scholarships were granted out of the total funded quota of 201. According to DHS, the full quota was not met because some universities were not ready to provide a mid-year intake for the graduate certificate courses. Details are contained in Table 7C.

**TABLE 7C**
**SCHOLARSHIPS BY SPECIALTY, 2001**

| *2001 scholarships by specialty* | *Number of scholarships* |
|---|---|
| Emergency | 29 |
| Critical Care | 40 |
| Peri operative | 22 |
| Neonatal Intensive Care | 23 |
| Advanced Acute Nursing | 36 |
| Intensive Care | 8 |
| **Total** | **158** |

*Source*: Department of Human Services , 2002.

**7.30** We found that the Postgraduate Scholarship Program provides benefits for nurses and hospitals. While the majority of hospitals in our review did not participate in this initiative, those that did were positive about the outcomes of the program. Benefits included an upgrade in the skill level of nurses and a positive impact on nurse retention. Those hospitals that did not participate were either unaware of the initiative, did not have staff wanting to undertake postgraduate study or the scholarship places were not in areas of need for the hospital.

**7.31** The survey found that nearly 65 per cent of hospitals rated the initiative as having either a moderate or major impact on addressing areas of nursing shortage.

**7.32** Nine out of the 10 nurse interviewees to our telephone survey said that the postgraduate study had addressed a major need in their hospital. All interviewees considered the postgraduate study to be career enhancing. Several interviewees who commenced after the initial round of offers indicated that if it were not for these scholarships, they would have been unable to pursue studies.

## Continuing Nurse Education Program

**7.33** The Continuing Nurse Education Program was launched as a pilot scheme in 1998. Funding to hospitals by DHS was submission-based. Hospitals applying for funding were required to base their submission on the hospital business plan and include an assessment of staff and student education needs. The Continuing Nurse Education courses include information technology, customer service and staff management as well as clinical areas such as critical care, oncology and renal nursing. Funding details are contained in Table 7D.

**TABLE 7D**
**CONTINUING NURSE EDUCATION FUNDING**

| *Year funded* | *Number of facilities funded* | *Funding allocation* |
|---|---|---|
| | | *($m)* |
| 1998-99 | 38 | 2.9 |
| 1999-00 | 70 | 3.9 |
| 2000-01 | 78 | 3.9 |
| 2001-02 | 77 | 2.0 |

*Source*: Nurse Policy Branch, Department of Human Services, 2002.

***7.34*** DHS has advised that funding for 2001-02 reflects a one-off re-allocation of funding to other areas of nurse education. We found that the main benefits of the Continuing Nurse Education initiative are that it provides nurses with professional development in areas of high need: staff management, changing technology and clinical practice.

***7.35*** According to our on-site hospital review, there was a high level of satisfaction with the initiative both in terms of professional outcomes for nurses and efficiencies for hospitals. A number of hospitals reported difficulties with DHS' administration of this initiative as described below. Of the 17 hospitals that were subject to on-site review, 15 participated in this program. Only 3 hospitals thought that DHS' provision of information was timely and only 2 out of 16 hospitals thought that feedback about the program was adequate. For example, many hospitals commented that considerable time and resources were expended on funding submissions with no feedback on reasons for non-funding.

***7.36*** Over 90 per cent of hospitals believed the program had either a moderate or major impact on addressing the continuing education needs of staff. These high levels of satisfaction with the program disclosed during the on-site review were confirmed through hospital survey results.

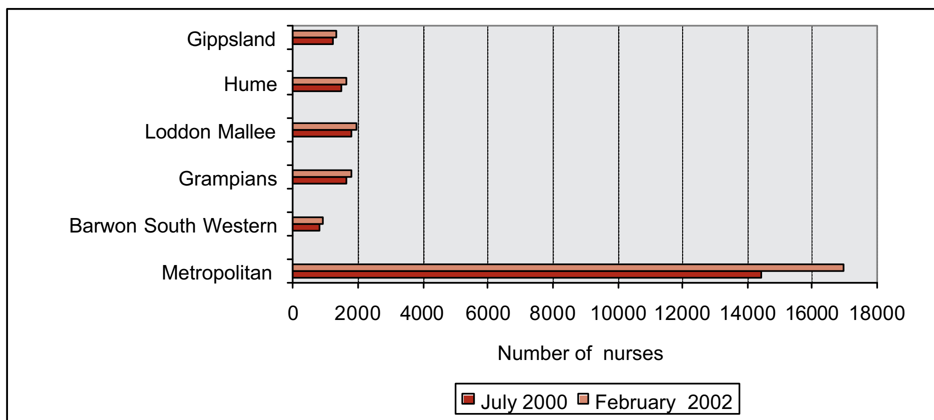
***7.37*** A telephone survey of 10 nurses who had completed Continuing Nurse Education revealed that the vast majority believed that the training provided addressed an area of need in the hospital.

## OVERALL EVALUATION OF RECRUITMENT AND RETENTION STRATEGY

***7.38*** The success of the initiatives that formed the Nurse Recruitment and Retention Strategy can, in part, be assessed by the additional numbers of nurses in the public health system over time.

**7.39** According to 2 snapshots of DHS payroll data taken at July 2000 and February 2002, there was an increase of approximately 3 300 equivalent full time nurses (EFT) in public health facilities. Given the current difficulties experienced by hospitals with the introduction of new payroll systems and the lack of a consistently applied definition of what constitutes an equivalent full-time position, the increase in nurse numbers should be regarded as indicative rather than definitive. It is also not possible to attribute the extent to which individual initiatives have contributed to this increase due to the absence of relevant information, although these initiatives clearly have had an impact**.** Chart 7E outlines the distribution of nurses by EFT as at July 2000 and February 2002.

**CHART 7E**
**METROPOLITAN AND REGIONAL NURSE NUMBERS (EFT)**
**AT JULY 2000 AND FEBRUARY 2002**




*Source*: Department of Human Services, 2002.

**7.40** Our analysis of the overall DHS initiative program is divided into the following 2 areas.

## Recruitment

**7.41** Recruitment initiatives were focused upon bringing qualified nurses back into the work force. We found that this was an effective strategy to solve an immediate nurse shortage. Data from the Australian Institute of Health and Welfare, however, demonstrates that the pool of non-working nurses is shrinking. In 1993, there was a total of 16 851 registered Division 1 and 2 nurses not employed as nurses. By 1999, the number was 5 751[2]. Future nurse recruitment initiatives may have to focus upon increasing the total nurse supply.

**7.42** DHS funded an increase in the supply of Division 2 nurses through increasing training places. We found that it was not possible to determine the destinations of these nurses. DHS should monitor the destinations of Division 2 nurses in order to determine whether there are adequate nurse numbers to meet the needs of the acute public hospital sector as well as other sectors such as aged care and community nursing.

[2] Australian Institute of Health and Welfare 1993 and 1999 Nurse Labour Force data.

### Retention

*7.43* The nurse retention initiatives predominantly target experienced Division 1 nurses. The following 2 initiatives provide additional career opportunities targeted to this group.

- nurse practitioner models of advanced practice; and
- funding of senior nursing, leadership and education appointments.

*7.44* Other retention initiatives are focused on nurse study options and study leave for Division 1 and 2 nurses. We found that there are no new positions or career pathways for nurses working in non-managerial generalist nursing roles. According to the Nurse Recruitment and Retention Committee Final Report, nurse dissatisfaction with the lack of career opportunities is a major concern. Consequently, it may be appropriate for future DHS initiatives to be directed towards the retention of these nurses through the development of structured career pathways for this group.

### Recommendation

*7.45* We recommend that DHS should:

- directly link the funding of future Refresher and Re-entry Program places to vacancies or contract positions within public facilities;
- expand existing retention initiatives to provide additional career opportunities for non-managerial generalist nurses;
- improve communication on forthcoming initiatives and feedback on the outcome of funding deliberations; and
- introduce data collection and monitoring strategies for evaluation purposes.

## AGENCY USAGE

*7.46* The use of private sector nurse agency staff to fill vacancies has been a long-established practice within the public hospital system. Agency usage and associated costs have been increasing over the last 2 years to the extent that the financial impact on some metropolitan hospitals has been significant. Recent changes have been introduced by DHS to curb the use of agency staff and associated costs and to encourage nurses to return as part of the permanent public hospital work force.

### Background to changes in agency usage

*7.47* As a result of a notification of an industrial dispute due to the inability of DHS and union groups to reach agreement on the Enterprise Bargaining Agreement, the Australian Industrial Relations Commission, at the request of all parties, conducted a hearing under Section 111AA of the *Workplace Relations Act* 1996 to make recommendations to settle the dispute. Under this section of the Act, all parties agree to be bound by the Commission's decision. The Commission's decision of 31 August 2000 stated inter alia:

> *"The Commission would be prepared, however, to recommend that employers should endeavour to meet the ratio* [mandatory nurse-to-patient ratios] *through the employment of permanent staff. Where this is not possible, bank staff may be used in the interim. Agency staff should only be used for unexpected absences, such as sick leave".*

**7.48** In conjunction with the implementation of the Commission's decision, a number of critical developments occurred in 2001. These were:

- There were increasing numbers of nurses working for agencies. In some instances, nurses were working part-time for hospitals to maintain permanency, and part-time for an agency at a higher rate of remuneration. As an agency nurse, nurses were sometimes working in the same hospital as their permanent employment; and
- Concurrent with this development, nursing agencies began to increase their charges and rates of payment to nurses. Hospitals reported that Grade 2 agency nurses were being paid up to Grade 7 rates, especially in areas of specialist nursing shortages.

**7.49** These increases were confirmed by the results of our hospital survey, which was issued to hospitals as well as through our discussions with nursing agencies. The extent of increases is detailed in Table 7F.

**TABLE 7F**
**AVERAGE AGENCY HOURLY CHARGES FOR GRADE 2, YEAR 6 NURSES**

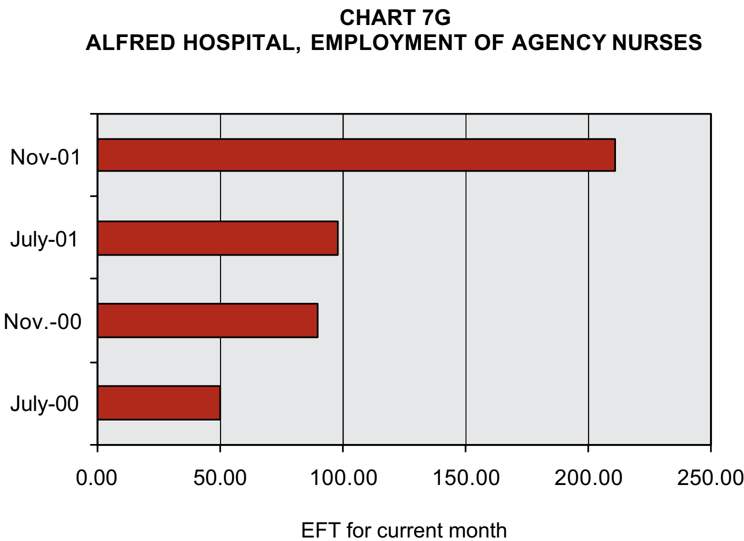
| | *Shift time* | *February 2001* | *February 2002* | *Percentage increase* |
|---|---|---|---|---|
| | | *($)* | *($)* | *(%)* |
| Weekday | Day | 58.00 | 70.40 | 21 |
| | Afternoon | 61.40 | 74.00 | 21 |
| | Night | 65.00 | 81.80 | 26 |
| Saturday | Day | 85.50 | 106.30 | 24 |
| | Afternoon | 88.80 | 106.30 | 20 |
| | Night | 92.50 | 115.60 | 25 |
| Sunday | Day | 85.50 | 103.80 | 21 |
| | Afternoon | 88.80 | 107.60 | 21 |
| | Night | 88.50 | 108.90 | 23 |
| Public Holiday | Day | 98.00 | 119.70 | 22 |
| | Afternoon | 98.00 | 122.80 | 25 |
| | Night | 101.10 | 129.30 | 28 |

*Source*: Victorian Auditor General's Office survey, 2002.

**7.50** There is limited data readily available to describe trends in agency nurse usage and cost across the public hospital system. Data from a public hospital and a metropolitan health service (The Alfred and Southern Health) has been included on the basis that their systems allow for the ready analysis of information.

**7.51** Chart 7G indicates for the Alfred agency usage has significantly increased during recent years.

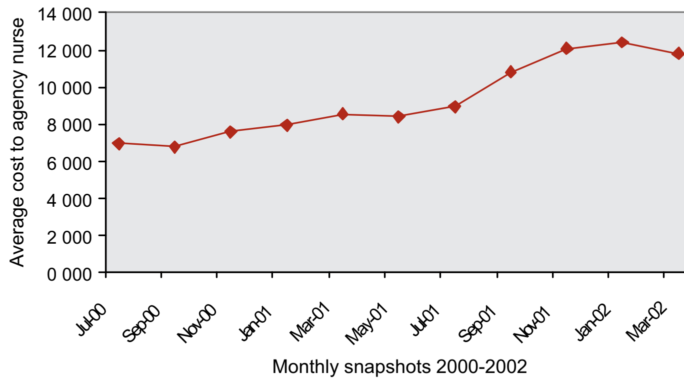
**CHART 7G**
**ALFRED HOSPITAL, EMPLOYMENT OF AGENCY NURSES**




*Source*: Victorian Auditor-General's Office, based on data supplied by DHS.

**7.52** Chart 7H for Southern Health shows that agency nurses were becoming increasingly expensive. From July 2000 to July 2001, the monthly cost of employing an equivalent full-time agency nurse at Southern Health rose by approximately $2 000 to $8 950. By January 2002, the cost of employing agency nurses had almost doubled from $6 970 to $12 422 per month when compared to July 2000. This would suggest that Southern Health was experiencing cost increases in excess of the average rate of increase for other hospitals.

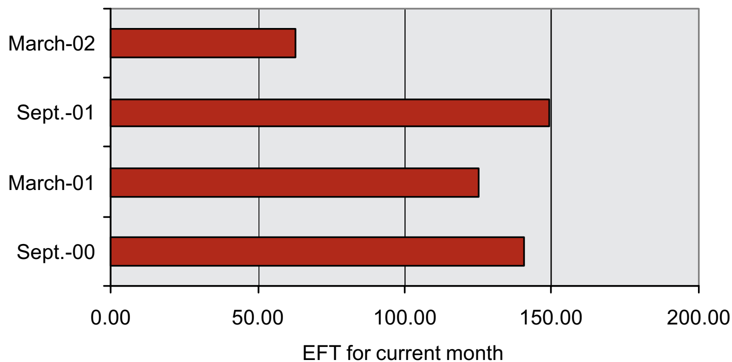
**CHART 7H**
**SOUTHERN HEALTH, AVERAGE COST PER AGENCY NURSE EFT PER MONTH**
**JULY 2000-MARCH 2002**




*Source*: Victorian Auditor-General's Office based on data provided by Southern Health.

*7.53* While the cost per nurse EFT had increased dramatically, the level of agency usage at Southern Health has not increased as significantly as outlined in Chart 7I. The impact of restrictions on agency usage is reflected in March 2002 data.

**CHART 7I**
**SOUTHERN HEALTH, EMPLOYMENT OF AGENCY NURSES**




*Source*: Victorian Auditor-General's Office based on data provided by Southern Health.

## Response to increasing agency costs

**7.54** The key developments leading to the limitations on agency usage and costs were as follows:

- Metropolitan hospitals expressed concern at their rising agency costs and the increases in rates for engaging agency nursing staff;
- In response to these concerns, Health Purchasing Victoria (HPV)[3] sought authorisation in November 2001 from the Australian Competition and Consumer Commission (ACCC) for exemptions from the relevant provisions of the *Trade Practices Act* 1974, principally in relation to anti-competitive behaviour. HPV also sought an interim order for exemption from the same provisions which would have allowed it to award a tender on behalf of health authorities for the exclusive acquisition of nursing staff from nursing agencies; and
- The interim order was not agreed to by the ACCC. This matter continues to be negotiated with the ACCC and the HPV is expecting a final response in June 2002.

**7.55** On 1 March 2002, the Secretary of the Department of Human Services wrote to public hospitals regarding the employment of agency nurses under section 42 (1)(c) of the *Health Services Act* 1988. The provisions within this section of the Act provide the authority for the Secretary to issue directions to public hospitals on the nature and conditions of employment and services provided to hospitals by another body. Specifically, hospitals were directed to:

- only engage agency staff for unexpected absences;
- pay agency staff at the same grade as permanently employed nurses when agency staff are replacing these staff;
- cease the practice of nurses performing agency work at the hospital that permanently employs them; and
- limit the payment to an agency nurse to 80 per cent above the basic award rate plus 15 per cent above the allowances provision included in the award.

**7.56** This direction took effect from 4 April 2002, however, most major hospitals introduced limitations on agency use prior to this date.

**7.57** Based on the results of data collected on a daily basis from all metropolitan health services and 3 regional health services covering the period early March 2002 to early May 2002, the following key trends were noted:

- the number of EFT nurse bank staff increased sharply in the initial week from 500 to over 700, with the number stabilising since mid-March to around 800; and
- a downward trend in agency use from nearly 500 EFT in early March to between 200 to 300 towards the end of the period.

[3] Health Purchasing Victoria is a public body established to facilitate access to the supply of goods and services to the health sector including public hospitals.

**7.58** As a result of changed agency arrangements, the system outcomes that have been reported by public hospitals have been minor to date. For example, hospitals have reported on the maximum number of Emergency Department cubicles closed during the day as a result of these agency changes. The median of these closures was 12 out of a total capacity of approximately 600. Some hospitals have advised DHS that they have chosen to close cubicles over night to reduce system impact.

## Potential impact of restrictions on agency use

**7.59** We have assessed the potential impact of changes to the usage and cost of nursing agencies.

### *Limited system-wide data on agency usage*

**7.60** Agencies are paid on an invoice basis by hospitals rather than through the payroll system. Few hospitals are able to provide agency usage on an equivalent full-time basis. Consequently, DHS has not been in receipt of any regular information on the extent of agency use across the system prior to the implementation of restrictions on the engagement of agency nurses. DHS has relied upon a snapshot of agency usage and costs as at May and September 2001, based on a survey of 10 hospitals.

**7.61** Table 7J shows the number of public hospitals utilising Division 1 agency nurses by major nursing specialty as a result of our survey of 92 public hospitals.

**TABLE 7J**
**AGENCY STAFF UTILISATION BY SPECIALTY FOR 2001**

| *Nurse specialty* | *Number of hospitals* |
|---|---|
| Medical/Surgical | 28 |
| Midwifery | 19 |
| Peri operative | 17 |
| Intensive Care | 17 |
| Accident and Emergency | 16 |

*Source*: Victorian Auditor-General's Office survey, 2002.

**7.62** Apart from the above data, more detailed information was not readily available on a system-wide basis from public hospitals.

### *Increased nurses in public hospitals*

**7.63** Public hospital payroll data indicates that an additional 3 300 equivalent full-time nurses (i.e. not including agency nurses) were employed within the public hospital system between July 2000 and February 2002. While this increase should have reduced the need for agency staff, within this period DHS provided funding for an additional 1 650 EFT for the implementation of mandatory nurse-to-patient ratios. In addition, since the introduction of restrictions on agency use and payments, there is the likelihood that some agency staff have returned to the public hospital system, either as permanent staff or as part of a nurse bank. However, due to the limitations of nurse work force data, the extent to which this has occurred is not known.

### Seasonal nature of demand

**7.64** Given the seasonal nature of the demand for hospital services particularly with the onset of winter, demand for nurses is likely to increase.

**7.65** In the course of the audit, we visited a number of nursing agencies to ascertain their views on the impact of restrictions on the use of agency staff within the public hospital system. Data on the allocation of specialist nursing shifts supplied by a major nursing agency indicated a steady increase in the number of shifts from April, with the August to late December period experiencing particularly strong allocations in line with hospital activity. A sharp decline in allocations occurs in late December. This trend has been consistent over a number of years. The level of unmet demand for agency nurses over these periods was unclear. These patterns were generally confirmed through an analysis of trends in monthly hospital nurse EFT data which reflect the level of hospital activity.

### DHS monitoring of changes

**7.66** In order to monitor the impact of changed agency arrangements, DHS has introduced daily data collections of key indicators in the major hospitals to monitor the impact of changed agency arrangements. Hospitals have been requested to provide the number of:

- Emergency Department bypass incidents;
- Emergency Department cubicles closed;
- inpatient beds closed; and
- operating theatre sessions cancelled.

**7.67** Hospitals have been requested to only provide data in relation to the above if there is a clear linkage to the implementation of the DHS direction on agency usage and costs. In addition, hospitals have also been requested to provide data on hours worked by agency and nurse bank staff. The reporting system was implemented on 4 March 2002 immediately following the issuing of the DHS directive to hospitals on nurse agencies.

**7.68** The broader system-wide outcome indicators (e.g. theatre sessions cancelled) need to be supplemented by more specific indicators of agency usage to disaggregate the impact of DHS' agency policy from other variables affecting the delivery of health services. For example, a shortage of medical staff or equipment could result in similar system outcomes to a shortage of agency nurses.

**7.69** More specific indicators could include:

- the type of shifts worked by agency staff;
- the number of unfilled shifts due to nurse agency restrictions;
- the category/ specialty of agency nurse employed; and
- the extent of nurse shortages by specialty.

**7.70** It is also important for hospitals to establish baseline performance data in these areas to measure the extent of change since the new agency policy was introduced.

## Potential impact in specialty nursing

**7.71** While data is available on the number of additional nurses within the public hospital system, there is no data on the extent to which additional numbers are filling areas of specialty shortage. A total of 158 postgraduate scholarships were offered in June 2001 in areas of specialty shortage, however, their resulting impact on areas of shortage is not yet known.

**7.72** For those specialty nurses who have worked for agencies, the reduced hours of work and reduced pay (compared with agency rates) may result in some nurses leaving the profession, at least in Victoria. This is especially likely for younger nurses with postgraduate qualifications whose services are in high demand and who are less likely to have family responsibilities. This is borne out by a telephone survey of 500 specialist nurses[4] that was conducted by a market research firm on behalf of a nursing agency. The survey indicated that:

- Eleven per cent of nurses would definitely not remain in nursing, while a further 13 per cent indicated they probably would leave nursing. This group was on average younger, less likely to be involved in a permanent relationship and more highly qualified;
- A further 24 per cent indicated they would discontinue agency work without increasing nursing workload elsewhere; and
- On the other hand, 32 per cent indicated they would discontinue agency work and increase work load elsewhere. A further 6 per cent would either work the same or more agency shifts and maintain or increase workload elsewhere. It is not clear if this would be in the public hospital system.

## Conclusion

**7.73** There are likely to be major shifts in working patterns of agency nurses given the potential loss of income and restrictions on their usage. Measuring the impact of these changes is complicated by recent increases in nursing numbers within the public hospital system and the seasonal demand for hospital services. It is likely that, with the withdrawal from nursing work of some agency staff, there will be shortages particularly in areas of specialty such as critical care.

**7.74** For DHS' policy to succeed, it will be imperative that:

- In the short-term, as the anticipated increase in hospital activity approaches with the onset of winter, the expected departure of nurses does not place the public hospital system under stress with increased bed closures, reduced access to surgery and emergency services and increasing instances of ambulance bypass. DHS will need to continue to closely monitor the impact of the recent changes in nursing agency policy to be in a position to promptly respond; and

[4] Survey conducted by Roy Morgan Research, 8 March 2002.

- In the long-term, public hospitals will need to increase the focus on initiatives that make permanent employment of nurses in hospitals an attractive employment option through the provision of greater employment flexibility, better working conditions and improved resource allocation processes.

### *Recommendation*

**7.75** We recommend that broader hospital system outcome measures be supplemented with additional agency-specific indicators to better quantify the impact of restrictions on nurse agency use.

## WHERE TO FROM HERE?

**7.76** DHS' Nurse Recruitment and Retention Strategy within public hospitals has largely focused on recruitment initiatives that are designed to have an immediate impact on the number of nurses working within the public hospital system. While this strategy has been appropriate, there are indications that a shift in policy is necessary to continue the momentum. For example, the diminishing pool of non-working nurses and the ageing of the nurse work force is likely to reduce the effectiveness of future Refresher/Re-entry Programs.

**7.77** The longer-term policy direction should support a sustainable nursing work force. Based on overseas experience such as in Canada, this requires the development of a strategic policy framework, which includes some of the elements outlined below.

### Defining respective roles and responsibilities of DHS and hospitals

**7.78** The role of DHS has been largely to develop, direct and oversee the implementation of initiatives relating to the Nurse Recruitment and Retention Strategy in public hospitals. Up to this point, hospitals have not played a large role in the identification; initiation and development of DHS-funded nurse recruitment and retention initiatives. Similarly, DHS has taken the lead role by directing hospitals to limit the use of nurse agency staff to unplanned absences and to cap the rates payable to agencies.

**7.79** It is now timely for DHS to focus on establishing a strategic planning and policy framework for the nurse work force that creates the appropriate environment for hospitals to assume a greater role in developing and implementing future nurse recruitment and retention initiatives. DHS, as the central government agency, would continue to play an important role in facilitating a whole- of- system approach to nurse recruitment and retention as well as establishing effective liaison with other key stakeholders such as universities.

**7.80** With regard to the retention of nurses in particular, hospitals play the crucial role in creating a supportive culture at the local level to encourage nurses to remain within the hospital system. Among other things, this has a crucial impact on containing costs associated with nurse agency use.

**7.81** We believe that funding incentives can be introduced that encourage hospitals to support nurse recruitment and retention. An important component of this process is the public recognition of outstanding practice. This can be in the form of:

- benchmarking hospital performance in terms of effective nurse recruitment and retention;
- reimbursing hospitals for the cost of initiatives, within policy and cost parameters, where significant benefits can be demonstrated; and
- introducing best practice awards.

**7.82** In benchmarking performance of hospitals, it is important to include both quantitative and qualitative data. In respect to qualitative data, we suggest a confidential survey of nurses be conducted to seek their views on their hospital's work force policies, practices and general working environment.

## Defining the nurse work force and the nurse work force requirements

**7.83** The last major Statewide review of the nursing profession was as a result of extensive industrial action undertaken by nurses in 1986. The outcome of this dispute resulted in improvements in pay and conditions, nurse education and career structures.

**7.84** Since then, major developments have occurred that impact on the delivery of nursing services. This can be seen not only in terms of changed clinical practices driven by technological advances and increased levels of patient throughput but in the education of nurses, with the completion of the shift from hospital-based training of nurses to undergraduate and postgraduate university courses.

**7.85** There have been reviews of nursing roles and practices such as DHS' Expanded Scope of Practice Project, which has recently provided recommendations to the Minister for Health[5]. There are also individual initiatives such as the development of nurse practitioner models that extend the career paths of senior nurses after undertaking appropriate education. These initiatives, while important, have tended to concentrate on elements of the nursing work force such as the work conducted by Division 2 nurses or the creation of senior nursing roles.

**7.86** We believe that it is timely to commence the process of defining and documenting the work nurses undertake in order to inform work force planning. This process could include researching models of clinical care within differing health care settings and the role of nursing within health care teams, conducting an analysis of the technical requirements for the delivery of nursing care and scoping of nursing practice and skill mixes. There is the potential for this research to inform any future discussions regarding enhancing career pathways for clinical nurses which, in turn, could lead to improvements in nurse retention.

[5] Following on from consultation by the Nurses Board of Victoria on expanding the role of Division 2 nurses to include administration of medications, DHS formed a working party to consider this issue.

**7.87** The shortage of nurses within the public hospital system, the combination of the ageing of the nursing work force and the lack of any appreciable increase in the number of university places for nursing suggests that any broader examination of nursing work should also consider potential sources of nursing supply. Reference has already been made to the sharp decline in the number of registered nurses not in the nurse work force between 1993 and 1999 with the latter date representing the latest data available.

**7.88** Part 8 of this report highlights the importance of engaging key stakeholders such as the university sector in tackling major policy issues that require a whole of industry response. This is supported by overseas experience, particularly in Ontario, Canada, where the establishment of effective partnerships has produced positive outcomes as far as nurse recruitment and retention is concerned.

## Recommendation

**7.89** We recommend that DHS develop a strategic policy framework which includes:

- communicating a clear definition of its roles and responsibilities vis-à-vis hospitals;
- introducing benchmarking of hospital performance on nurse recruitment and retention covering both quantitative and qualitative indicators;
- introducing policy initiatives that recognise and reward best practice in this area;
- sponsoring research into defining nursing-related work and associated technical requirements and competencies; and
- engaging with other key stakeholders in addressing these issues.

## Part 8

# Linkages between key stakeholders

## INTRODUCTION

**8.1** The Commonwealth Government funds nursing places at universities with each university deciding upon the distribution of these places across faculties and schools. The State Government funds Vocational Education and Training (VET) providers on the basis of an agreed number of student contact hours.

**8.2** Effective work force planning requires close co-ordination between universities and VET providers as the major suppliers of nurses, the Department of Human Services (DHS) as the State's principal agency involved in nurse planning and policy in the public health sector, and public hospitals as major employers of nurses.

**8.3** The absence of work force planning can lead to a lack of action to address imbalances between the supply of, and demand for, nurses. Shortfalls in nursing supply can lead to the needs of the community not being met or the introduction of increased cost pressures driven by shortages of general or specialist nurses. Given that the time it takes to educate a Division 1 nurse is at least 3 years, the importance of forward planning is critical.

**8.4** It is also apparent that many major issues affecting the nurse work force can only be satisfactorily tackled by a whole-of-industry approach involving the key decision-makers rather than by individual organisational entities. This aspect is explored in greater detail later in this Part of the report.

## CURRENT STAKEHOLDER LINKAGES

**8.5** There are a number of existing forums for exchange of information both within and across key stakeholder groups as detailed below.

### Communication within stakeholder groups

**8.6** Within the public hospital system, Directors of Nursing (DONs) from Metropolitan Health Services have met on a monthly basis since March 2001. The terms of reference of the group includes providing:

- a forum for discussion on current and future nurse-related issues;
- a point of contact for key stakeholders such as the Nurse Policy Branch of DHS; and
- a means of exploring the advancement of nursing practice models.

**8.7** An analysis of the minutes of this group indicates that, understandably, the predominant theme was the implementation of the Enterprise Bargaining Agreement although general recruitment and retention issues were also discussed.

**8.8** DONs from Group B hospitals (large regional base) and Group C hospitals (regional general) conducted their inaugural meeting in late October 2001. Meetings are to be held on a quarterly basis. The terms of reference of the group include the establishment of communication links among nurse executives and with other professional groups, the provision of professional development opportunities and the encouragement of continuous benchmarking of similar organisations.

## Communication across stakeholder groups

### *Hospitals and the Department of Human Services*

**8.9** In relation to nurse work force issues, the major forms of contact between public hospitals and DHS have generally been on an "as required" basis for the communication and implementation of departmental policy and funding positions, and for information sharing purposes.

**8.10** For example, DHS convened a Nurse Bank Summit in February 2002 for metropolitan and rural DONs. The purpose of the summit was to advise on nurse bank policy and to exchange examples of best practice in nurse work force management. There are also weekly meetings between the Principal Nurse Advisor, Nurse Policy Branch and DONs on changes in the use of agency staff.

**8.11** The meetings of metropolitan DONs have provided the opportunity for the Principal Nurse Advisor from the Nurse Policy Branch to attend meetings where particular issues can be canvassed.

### *Universities and hospitals*

**8.12** The results of our on-site review of selected hospitals revealed that there is extensive liaison between all 8 Metropolitan Health Services and individual universities. This is largely in the form of committees covering the planning and co-ordination of clinical placements, establishing feedback mechanisms from students on placements and providing input into curriculum design and the delivery of postgraduate courses. Rural hospitals have more limited contact with universities.

**8.13** Arrangements between universities and hospitals are formalised through agreements which typically cover:

- university staff/student access to clinical settings;
- safeguards over their safety as part of the clinical placement process; and
- other aspects such as access to patients.

*RMIT Bachelor of Nursing students on clinical placement.*

### Vocational Education and Training sector

**8.14** The principal forum for links between key stakeholders in relation to Division 2 nurses occurs through the Community Services and Health Industry Training Board. The Board provides a forum for providing advice to government on the industry's education and training needs. The consideration for the requirement of Division 2 nurses comprises part of the Board's deliberations on the overall health industry.

**8.15** The Board comprises representatives from a range of spheres, including:

- departmental agencies (e.g. Department of Human Services, Office of Training and Tertiary Education);
- employer bodies (e.g. Victorian Healthcare Association Limited);
- industrial bodies (e.g. Australian Nurses Federation); and
- welfare agencies (e.g. Brotherhood of St Laurence).

## GAPS IN STAKEHOLDER LINKAGES

**8.16** Despite the linkages described above, there are no co-ordination arrangements that bring together universities and the VET sector as the suppliers of nurses, the public hospitals as the principal public sector employer of nurses and DHS as the lead State Government agency responsible for nurse policy. For reasons outlined previously, there are sound work force planning reasons for this to occur.

**8.17** Given the importance of marrying the demand for nurses with supply considerations, we believe there is a need for co-ordination arrangements to be established on nurse supply and demand within the public hospital system. The focus of these arrangements should be on collaborative planning and decision-making with access to an executive support and research capacity. Sufficiently senior personnel from DHS, hospitals/ Metropolitan Health Services, universities and the VET sector should be involved who have the capacity to either make decisions on behalf of their organisations or to make in-principle decisions and to pursue resolution within their respective organisations.

**8.18** Consideration could also be given to expanding the scope of any co-ordination arrangements to include other major employers including representatives from private hospitals, aged care providers and not-for-profit organisations.

**8.19** One of the important prerequisites for effective planning and decision-making is the need for improved data on nurse supply and demand. The recent initiative of the Nurse Policy Branch in commissioning Deakin University to compile data on the supply of nurses is an important step in this direction.

**8.20** Access to reliable and comprehensive nurse work force data remains highly problematic. Examination of available DHS data and reviews at selected hospitals confirmed comments contained in the Nurse Recruitment and Retention Committee's Final Report of May 2001 that comprehensive and up-to-date work force data (e.g. the number of nurses) was not available across the State. A nurse work force study involving forecasts of future demand for nurses is to commence later in 2002.

**8.21** We believe that there is considerable benefit in co-ordination arrangements being established as there are a number of critical issues that need to be addressed holistically. By way of illustration apart from the National Review of Nurse Education, there has been little recent nursing-related work force research conducted at a State or Commonwealth level. The introduction of such an initiative should involve input from all key stakeholders.

**8.22** Potential areas for consideration under proposed co-ordination arrangements include:

- sponsoring studies to identify future demand for, and supply of, both Division 1 and 2 nurses;
- identifying and developing approaches to managing mismatches in the demand and supply of nurses, e.g. highlighting specific areas of specialty shortage and developing and trialing strategies to address these;
- identifying future changes to models of care and the impact of these changes:
  - at a university/ VET provider level in terms of course content and delivery; and
  - at a Statewide level on nurse work force management in terms of career structure and job design;
- exploring options aimed at addressing gender and ethnic imbalances in the nursing work force; and

- sponsoring research and studies into areas such as models of clinical care and the nursing role as part of a health care team.

**8.23** We believe that it is important that any deliberations result in regular feedback and information to interested parties. For example, we see considerable value in making publicly available information which promotes more informed decision-making within the community, including prospective applicants for nurse education courses. Such information could include:

- areas of shortage by specialty and broad geographic area; and
- current initiatives and developments designed to address shortages such as the implementation of the Enterprise Bargaining Agreement.

## Recommendation

**8.24** We recommend that:

- co-ordination arrangements be initially established linking key stakeholders involved in nurse supply and demand for the public hospital sector;
- the potential to expand co-ordination arrangements to include coverage of major non-public sector nurse employers should be explored; and
- regular feedback be provided to interested parties such as statements on areas of nursing shortages.

# Appendix A

# Audit criteria

# CRITERIA USED IN THE CONDUCT OF THIS PERFORMANCE AUDIT

| *Audit objectives* | *Audit criteria* |
|---|---|
| To assess whether the Department of Human Services is implementing appropriate actions to improve nurse work force planning processes. | DHS should have acted in a timely and effective manner to implement the (agreed to) recommendations of the Victorian Nurse Recruitment and Retention Committee.<br>The current and proposed work force planning approach should constitute a sound basis to plan for nurse demand and supply.<br>DHS should provide adequate guidance and advice to hospitals on nurse work force planning.<br>There should be appropriate data systems in place to support nurse work force planning processes. |
| To assess the effectiveness and efficiency of public hospital nurse work force planning and management at the local level. | Nurse work force planning should be clearly defined in terms of hospital roles, responsibilities and requirements.<br>Hospitals should be using appropriate systems and data to identify current and future staff requirements.<br>Nurse work force planning should be supported by appropriate tools and methods.<br>Hospitals should be making use of initiatives for improved nurse recruitment and retention.<br>Current work force planning and management should result in appropriate action to meet staffing requirements in the most efficient manner. |
| To assess the effectiveness and efficiency of initiatives to encourage appropriate recruitment and retention of nurses. | Performance measurement frameworks should be in place that encompass clearly defined objectives, measurable targets and robust performance indicators.<br>There should be evidence of effective and efficient data collection methods to identify the impact of initiatives.<br>Regular and reliable reporting and monitoring systems should be in place to measure the impact of the implementation of initiatives.<br>There should be evidence of the impact of initiatives and that they have been effective and appropriately targeted. |
| To assess the effectiveness and efficiency of linkages between the Department of Human Services, hospitals and nurse education providers in relation to work force planning. | Effective and efficient mechanisms should be in place to ensure co-ordination of work force planning requirements between DHS, hospitals, universities and VET providers.<br>Effective long-term strategies should have been developed for meeting nurse work force requirements.<br>There should be evidence of appropriate action being taken by responsible parties. |

# Appendix B

# Good practice

# EXAMPLES OF GOOD PRACTICE

A number of hospitals are developing in-house strategies to recruit and retain nursing staff as well as introducing improved work force planning tools.

The following examples were selected from the Victorian hospitals that participated in our review. These hospitals were:

- **Metropolitan**
  - Austin and Repatriation Medical Centre:
  - Bayside Health;
  - Eastern Health;
  - Melbourne Health;
  - Peninsula Health:
  - Southern Health;
  - Western Health; and
  - Women's and Children's Health.
- **Rural**
  - Ballarat Health Services;
  - Barwon Health;
  - Benalla and District Memorial Hospital;
  - Bendigo Health Care Group;
  - Boort District Hospital;
  - Gippsland Southern Health Service;
  - Hepburn Health Services;
  - Lorne Community Hospital; and
  - Seymour District Memorial Hospital.

## Salary packaging for nurse bank staff

In order to increase the number of hours that nurses work in nurse banks, one metropolitan hospital has offered salary packaging to those nursing staff who work 20 hours or more per week. In order to be eligible, nurse bank staff at this hospital have, on average, increased their working hours by 4 per week. Overall, there has been a 60 per cent take-up rate among nurse bank staff.

## Critical incident debriefing

Traumatic workplace incidents can affect the ways in which nursing staff view their employment. In some instances, trauma can lead to stress leave, or even resignation. In recognition of the difficulties of the nursing role, one Victorian hospital is contracting an external consultant to provide debriefing after traumatic incidents. Debriefing is provided on request, and can be either one-on-one or group-based. Traumatic incidents can include dealing with a seriously aggressive patient, a traumatic death, staff illness or death.

## Nurse Recruitment Incentive Program

A metropolitan hospital has encouraged nurse recruitment by offering a $500 payment to any staff member who recruits a Division 1 nurse who agrees to be employed for more than 32 hours per week, and for 3 months or longer. So far, 17 staff have been recruited in this way.

## Nurse Manager Orientation Program

In order to maintain a well functioning working environment for nurses, one hospital has introduced a management program to orientate new nurse managers to their role. The management program takes into account operational skills, leadership and communication skills. New managers are also introduced to the range of line management skills required for their position.

## Student fellowships

A large metropolitan hospital is currently piloting a program that aims to recruit student nurses to the hospital. Students become part of the paid work force and are encouraged to participate in decision-making to influence the future directions. By valuing the work of the student nurses, the hospital hopes to retain them in their work force.

## New graduate program

A number of Victorian hospitals are encouraging graduate nurses to undertake specialist education in an effort to keep them on staff. Graduates are able to request areas of specialty and the hospital provides varying levels of support and resources. Those hospitals that provide continuing educational opportunities to graduate staff consider this strategy to be an important nurse retention tool.

## Two year graduate appointments

A regional hospital has extended the nurse graduate period from one year to 2. As part of this program, graduates are provided with 4 three monthly rotations across specialty areas in year one, and 2 six monthly rotations in specialties of choice in the second year. Since the beginning of this program, 50 to 75 per cent of graduates have gone on to permanent employment positions.

## Intensive Care Unit (ICU) education for nurse bank staff

In an effort to meet the peaks and troughs of ICU staffing requirements, one hospital has offered free re-skilling programs for nurse bank staff. Nurse bank staff are paid to attend a full day of training, and provided with self-learning packages. The program has only been delivered once, but has already provided staffing benefits for the ICU.

## School career advice

The Chief Executive Officer of a rural hospital has been participating in the career program of a local school in an attempt to recruit secondary students to the nursing profession. Secondary students are encouraged to undertake work experience at the hospital. In 2002, there are 3 local students completing the graduate nursing year.

## Regional provision of nurse education

A number of small hospitals have formed strategic alliances with hospitals in their region in order to deliver education and training to their nursing staff. The advantages of regional education provision include:

- the sharing of program delivery costs;
- the pooling of educational resources; and
- the opportunity to share information and strategies across hospitals.

## Work force planning

Three major metropolitan hospitals have recognised the value that can be derived from analysing data relating to work force deployment. This includes:

- Analysing the extent of agency usage according to ward and specialty;
- Identifying the amount of "hands-on" hours worked by Nurse Managers;
- Identifying seasonal trends in staff resignations; and,
- Determining seasonal trends in patient admission rates and reducing some areas of operation in order to accommodate this. For example, reducing theatre cases in order to make available more medical beds in the winter.

In an endeavour to become an "employer of choice", a major metropolitan hospital is implementing a Human Resources Strategic Plan. Part of the Plan's focus is developing the leadership and management skills of middle level nurse managers, through the delivery of training programs that cover a range of core management competencies. An occupational health and safety strategy complements the Human Resources Strategic Plan.

# Appendix C

# Victorian nursing specialties

Universities in Victoria offer postgraduate diplomas in the following specialty areas:

- Children;
- Community health and development;
- Critical care nursing;
- Gerontic nursing;
- High dependency nursing;
- Emergency nursing;
- Mental health;
- Palliative care;
- Cancer nursing;
- Acute care;
- Midwifery;
- Neuroscience;
- Rehabilitation;
- School health;
- Clinical nursing;
- Indigenous health care;
- Anaesthesia and post-anaesthesia;
- Breast cancer;
- Dysphagia;
- E-healthcare;
- Intensive cardiac or cardiothoracic;
- Occupational health and safety;
- Primary health care – women's health;
- Orthopaedic nursing;
- Paediatric nursing;
- Health services management;
- Diabetes education;
- Preoperative nursing;
- Rehabilitation nursing;
- Rural nursing; and
- Trans-cultural nursing.

# Appendix D

# Glossary of terms

**GLOSSARY OF TERMS**

| | |
|---|---|
| Australian Bureau of Statistics | Australian Bureau of Statistics (ABS) is a Commonwealth Government body that collects and publishes national statistical information. |
| Australian Council of Deans of Nursing | The Australian Council of Deans of Nursing represents all the Faculties or Schools of Nursing in Australian universities. It meets at least twice a year to consider matters important to nurse education. |
| Australian Institute of Health and Welfare | The Australian Institute of Health and Welfare (AHIW) is an independent national agency for health and welfare statistics and information. |
| Australian Institute of Health and Welfare Nurse Labour Force Data | Survey data gathered by the Nurses Board of Victoria as part of the annual nurse registration/re-registration process and weighted by the AIHW for non-responses.<br>Data is then published by AIHW in its Nursing Labour Force Report. |
| Australian Nursing Federation (Victorian Branch) | The Australian Nursing Federation is the major organisation representing nurses in Victoria in relation to industrial and professional matters. |
| Continuing nurse education | Ongoing education provided to nurses that is funded by the Department of Human Services according to a submission lodged by hospitals. The continuing education courses include information technology, customer service, staff management as well as clinical areas such as critical care, oncology and renal nursing. |
| Denominational hospitals | Hospitals that are managed by a religious group. |
| Department of Human Services | The Victorian Government Department responsible for funding public hospitals and developing and implementing policy relating to public hospitals. |
| Director of Nursing | The senior executive nursing role within a health service. It is usually a non-clinical role, with the Director of Nursing (DON) generally assuming operational and strategic responsibility for a hospital's nursing work force. |
| District Health Board (NZ) | Boards which provide hospital and health services to their geographically-defined populations. District Health Boards are responsible for implementing a national strategy for health and are funded to provide a comprehensive range of health services, including hospital services. |
| Division 1 Registered Nurse | A nurse belonging to Division 1 of the nursing register. A Division 1 nurse may have qualified through hospital-based training or university studies, usually of 3 years duration. Division 1 nurses are educated to perform and be accountable for a range of clinical interventions and assume a supervisory role when working with Division 2 nurses. Formerly known as a State Registered Nurse. |
| Division 2 Registered Nurse | Nurses belonging to Division 2 of the nursing register. A Division 2 nurse may have qualified through hospital-based training or within the Vocational Education and Training sector, by undertaking studies usually of 1 year duration. Generally, they operate within a narrower professional scope of practice and are supervised by a Division 1 nurse. Formerly known as a State Enrolled Nurse. |
| Division 3 Registered Nurse | Division 3 nurses are qualified to care for people with a psychiatric illness. As of 2000, Division 3 nurses, if they choose, can register as Division 1 nurses. Division 3 of the register is now closed. Formerly known as Registered Psychiatric Nurses. |
| Division 4 Registered Nurse | Division 4 nurses are qualified to care for people with an intellectual disability. Division 4 of the register is now closed. Formerly known as Intellectual Disability Nurses. |

**GLOSSARY OF TERMS** - *continued*

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| Division 5 Registered Nurse | Division 5 nurses are qualified to provide nursing assistance to new mothers and their babies. Division 5 of the register is now closed. Formerly known as Mothercraft Nurses. |
| Effective Full-Time/Full-Time Effective | One Effective Full-Time (EFT) nurse position is the equivalent of nurse working full-time for one financial year. |
| ENTER Scores /Final Fringe scores | ENTER or Equivalent National Tertiary Entrance Rank is a percentile ranking showing an applicant's comparative placement in their Victorian Certificate of Education year group. Final Fringe scores are the most accurate representation of tertiary entrance scores as they indicate the point at which 95 per cent of all course offers are made. |
| Enterprise Bargaining Agreements | Enterprise Bargaining Agreements (EBAs) are agreements reached between unions representing employees and employers regarding wages and working conditions. For an EBA to be legally enforceable it must be certified by the Australian Industrial Relations Commission. |
| Graduate Careers Council of Australia | A peak body consisting of employer, university and government representatives, which among a range of activities targeted at promoting and fostering employment and career opportunities for post-secondary graduates, tracks first destinations and the later careers of graduates. |
| Graduate nurses/Graduate Nurse Program | Graduate nurses are those joining the paid work force after completing their nursing degree. Graduate Nurse Programs are administered by hospitals and health services to recruit graduate nurses, facilitate transition into the work setting and offer ongoing education and support to nurses in their first year of employment. |
| Health Purchasing Victoria | A public body established to facilitate access to supply of goods and services to the health sector, including public hospitals. |
| Length of stay | The number of days between a patient's admission to, and discharge from, a public hospital. |
| Medical/Surgical Nursing | These 2 areas of nursing are often grouped together, however, are quite clinically distinct:<br>• Surgical Nursing. Care of patients that are awaiting or have undergone a surgical procedure.<br>• Medical Nursing. Care of patients with a condition requiring observation or treatment of a non-surgical nature.<br>Both medical and surgical patients generally receive less active intervention and observation than patients in theatre, post-anaesthetic care or intensive care. |
| Ministry of Health and Long-term Care (MOHLTC) (Canada) | The body responsible for administering health services in Canada. MOHLTC offices are regionally-based. |
| Multi-day cases | A patient admission comprising 2 or more consecutive nights as an admitted patient. |
| National Health Service/ National Health Service Hospital Trusts (UK) | The National Health Service (NHS) is the body given responsibility by the United Kingdom Department of Health for the management and delivery of public health services to the British population. Hospital services are generally provided by local NHS Hospital Trusts which serve geographic areas and provide for a range of local health needs. |

**GLOSSARY OF TERMS** - *continued*

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| National Review of Nurse Education | A National Review of Nursing Education by the Commonwealth Department of Education, Science and Training and the Department of Health and Aged Care, due to report in mid-2002. The committee is examining the effectiveness of current arrangements for the education and training of nurses; factors in the labour market that affect the employment of nurses and the choice of nursing as an occupation; and the key factors governing the demand for, and supply of, nursing education and training. |
| National rural and remote midwifery up-skilling program | This program is a joint Commonwealth-State funded initiative over a 3 year period to up-skill midwives throughout remote and rural parts of Victoria. |
| Nursing agency | Privately operated organisations that supply casual nursing staff to hospitals and other health services. |
| Nurse banks | Nurse banks are administered by hospitals. Nurses belonging to nurse banks are paid at casual rates and elect how often and when they wish to work. Nurse bank staff differ from agency nurses in that they only work within a designated hospital or hospitals. |
| Nurses Board of Victoria | An independent statutory authority, created by the *Nurses Act* 1993. The Nurses Board is responsible for registering nurses, determining scope of practice, investigating nurses suspected of engaging in unprofessional conduct and imposing disciplinary action. |
| Nurse Policy Branch | Established by the Victorian Department of Human Services in November 2000 the Nurse Policy Branch is headed by a Principal Nurse Advisor, and has responsibility for providing policy advice to the Government; developing and implementing policy relating to nursing; maintaining data relating to the nurse work force; and developing and managing the initiative programs that constitute the Nurse Recruitment and Retention Strategy. |
| Nurse pools | Nurse pools are administered by hospitals. Staff belonging to a nurse pool are permanent staff. They are not usually attached to a ward but assigned where required. They are usually rostered for a minimum number of shifts. |
| Nurse practitioner | A recently introduced initiative to enhance the career options of more experienced nurses by allowing them to achieve a higher level of clinical practice within a specialty area and perform as a key member of a health care team. Nurses who achieve this level of practice are eligible to be endorsed as Nurse Practitioners with the Nurses Board of Victoria and paid at a higher level. To date, no nurses have been endorsed as a Nurse Practitioner. |
| Nurse Recruitment and Retention Committee | Appointed by the Victorian Government in February 2000 and representing a cross-section of the nursing work force, industrial and professional bodies, the tertiary education sector and hospital management. The Committee's terms of reference were to consult, examine and provide advice and recommendations on matters related to nurses. Its final report and recommendations were released in May 2001. |
| Nurse Recruitment and Retention Strategy | Launched by the Department of Human Services in September 2000, the Victorian Nurse Recruitment and Retention Strategy is designed to recruit and retain nurses in the public health system through the implementation of a range of initiatives. |
| Nurse registration | In order to legally practice nursing within Victoria, nurses must apply to, and satisfy the requirements of registration with, the Nurses Board of Victoria. Registrations are renewed annually. |

**GLOSSARY OF TERMS** - *continued*

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| Nursing specialties | Distinct clinical areas requiring additional experience or postgraduate education in order to practice competently in that area. Nursing specialties include midwifery, intensive care, peri operative, and accident and emergency. |
| Nurse-to-patient ratios | Established by the Australian Industrial Relations Commission's ruling of August 2000. Refers to mandatory nurse-to-patient ratios for different shifts, hospital category and some specialties. |
| Peri operative nursing | Nursing activity relating to the immediate care of patients undergoing surgery. This includes theatre nurses, anaesthetic nurses and nurses working in post-anaesthetic care units (or "Recovery" units). |
| Postgraduate scholarships | A set number of scholarships funded by the Department of Human Services to cover the Higher Education Contribution Scheme (HECS) costs of selected postgraduate nursing courses. The postgraduate courses run for 6 months full-time, and upon successful completion, nurses are awarded a Graduate Certificate in Advanced Clinical Nursing for a particular nursing specialty. |
| Private and not-for-profit hospitals | Private hospitals can be not-for-profit entities. Typically, private not-for-profit hospitals are managed by denominational or other benevolent organisations. For-profit private hospitals are generally managed by private companies, or publicly listed companies. They raise the bulk of their revenue from private health insurance arrangements. |
| Public hospital | A health care facility, established under State legislation as a hospital, and authorised to provide treatment and/or care to patients. |
| Re-entry course | A free, 3 month full-time course directed at nurses or midwives either no longer registered or out of the nursing work force for 10 years or more. The Department of Human Services provides funds for re-entry courses and courses are facilitated by individual hospitals. |
| Refresher courses | A free 5 week full-time course directed at nurses or midwives who are registered but not employed in nursing, and are less than 10 years out of the nursing work force. The Department of Human Services provides funds for refresher courses and courses are facilitated by individual hospitals. |
| Residential aged care | High and low care residential aged care services (formerly known as "nursing homes" and "hostels"). |
| Rural clinical placement | A clinical placement for a nursing student at a rural hospital or health service. |
| Same-day patient | A patient who is admitted and separated on the same date. |
| Separation | The formal cessation of treatment, or episode of patient care. |
| United Kingdom Central Council for Nursing Midwifery and Health Visiting | Known as the Nursing and Midwifery Council (NMC) as of April 2002. Performs a role similar to that of the Nurses Board of Victoria. |
| Vocational Education and Training | Vocational Education and Training (VET) providers, provide among other courses, Division 2 nurse education. Includes Technical and Further Education (TAFE) colleges. |
| Victorian Tertiary Admissions Centre | The Victorian Tertiary Admissions Centre (VTAC) is the organisation responsible for receiving and processing applications to tertiary education courses. |

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