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Follow-up of Selected Performance Audits Tabled in 2003 and 2004

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Victorian Auditor-General's Office

Auditing in the Public Interest

The Hon. Robert Smith MLC
President
Legislative Council
Parliament House
Melbourne

The Hon. Jenny Lindell MP
Speaker
Legislative Assembly
Parliament House
Melbourne

Dear Presiding Officers

Under the provisions of section 16AB of the *Audit Act 1994*, I transmit my report on *Follow-up of Selected Performance Audits Tabled in 2003 and 2004.*

Yours faithfully

DDR PEARSON
Auditor-General

6 June 2007

Foreword

Each year, my Office undertakes a number of performance audits across the Victorian public sector. Performance audits inform Parliament about whether agencies are effective, economical and efficient in performing their activities, and achieving their objectives.

To provide assurance to Parliament that audited agencies have acted to implement agreed recommendations contained in Auditor-General's reports, my Office revisits selected performance audits after 2 years. This report contains the results of 4 follow-up reviews of performance audits completed during 2003 and 2004. The performance audits were:

- Managing medical equipment in public hospitals (2003)
- Addressing the needs of Victorian prisoners (2003)
- Managing emergency demand in public hospitals (2004)
- Maintaining public housing stock (2004).

These 4 follow-up reviews demonstrate the positive work that agencies have undertaken to address our recommendations, and to improve their operations. But there is scope for considerable improvement. This report makes several recommendations for agencies to continue their progress in these critical operational areas.

DDR PEARSON
Auditor-General

6 June 2007

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1 Executive summary

1.1 Introduction

This report examines the progress that agencies have made to address recommendations we made in 4 performance audits conducted during 2003 and 2004. The performance audits were:

- Managing medical equipment in public hospitals (2003)
- Addressing the needs of Victorian prisoners (2003)
- Managing emergency demand in public hospitals (2004)
- Maintaining public housing stock (2004).

We identified opportunities, and made recommendations, to assist agencies in their continued implementation of the earlier recommendations. We have included agency responses to the findings in the individual parts of this report.

1.2 Overall conclusions and recommendations

1.2.1 Managing medical equipment in public hospitals

Action is in train to address the 2003 audit recommendations and improve the asset management practices of hospitals and the equipment funding process. Progress to date is satisfactory.

Actions initiated by the Department of Human Services (DHS), in conjunction with hospitals, include developing an asset management framework and improving information technology and communication systems. Work completed includes the development of a tool for prioritising equipment replacements and an information package for hospitals aimed at improving the transparency of the equipment funding process. Further consideration is now given to the risks if equipment is not replaced.

More work should be undertaken to achieve increased cost savings on equipment purchases through Health Purchasing Victoria (HPV). Seventeen of the 19 hospitals examined in this audit have acted on the 2003 recommendations. Four hospitals acknowledged that scope exists for further improvement.

Recommendation

1.1 That DHS continues to pursue opportunities with HPV to increase cost efficiencies for the sector in purchasing medical equipment.

1.2.2 Addressing the needs of Victorian prisoners

Corrections Victoria (CV) has continued to progress reforms to improve the assessment and management of offenders, in order to reduce the likelihood of re-offending and return to prison. Since the 2003 audit, improvement is evident in offender management practices employed by custodial staff in Victoria's prisons, prisoner risk and needs assessments, and the development of rehabilitation programs. These achievements have been supported by an effective change management strategy.

Some areas require further attention. For example, the scheduling and delivery of prisoner rehabilitation programs does not yet meet annual targets for all 4 programs. Also, the risk and needs assessment process requires further work to ensure timely assessment for all eligible prisoners.

CV has introduced a number of review and evaluation initiatives to support ongoing service development in the assessment and management of prisoners. There is scope for further improvement to ensure that the impact of the reforms is measured and reported effectively. This should include evaluation of the impact of the reforms on re-offending.

Recommendations

1.2 That CV better aligns the scheduling and delivery of offending behaviour programs so that eligible prisoners can access relevant programs as needed.

1.3 That CV identifies targets for completing timely assessments of risk and needs for eligible prisoners, and routinely reports on actual performance against these targets.

1.4 That CV develops measures to evaluate the impact of the re-offending reduction initiatives in Victoria, building on CV's research and recommendations on patterns of recidivism.

1.2.3 Managing emergency demand in public hospitals

The Department of Human Services (DHS) and hospitals have implemented several initiatives to reduce demand for, and improve patient access to, emergency department services since the 2004 audit.

A number of improvements regarding patient access are evident, including a reduction in the time patients spend in the emergency department, and reduced time on hospital bypass. Some areas require further improvement, including patients not waiting for treatment, and the time it takes for patients to receive treatment.

DHS is yet to assess how effective many of its initiatives have been. Some evaluations of specific initiatives have been completed. Others are in progress or planned. The evaluations will provide a clearer picture of progress.

DHS' *Better faster emergency care* strategy contains a range of further actions to improve emergency care and access. The challenge for DHS and metropolitan hospitals will be to follow through with planned and in-progress actions.

Recommendations

1.5 DHS should adopt the Australasian College of Emergency Medicine performance benchmarks for triage category 4 and 5, and publicly report on performance against them.

1.6 DHS should clarify in its public reporting of triage-to-treatment times that the data excludes those patients that were triaged but subsequently left the hospital without receiving treatment.

1.7 Hospitals should, as a priority, further develop waiting room procedures for patient re-triaging and management.

1.8 DHS and hospitals should continue to address our 2004 recommendations relating to security controls over emergency department data management systems, to ensure that actual performance is accurately recorded.

1.2.4 Maintaining public housing stock

The Office of Housing (OoH) has made progress in implementing the recommendations from the 2004 audit, with improvements to the way it assesses property condition, and engages and manages maintenance contractors.

There is scope for further improvement in the way the OoH manages maintenance contractors, including a more robust approach to assess performance and apply contractual remedies for overdue maintenance.

The Housing integrated information Program project is behind schedule. Consequently, its planned benefits have yet to be achieved. This is attributable to project governance and project, contract and risk management shortcomings.

The OoH has proposed strategies to complete the project. The strategy's timely and effective implementation will be critical to the successful completion of the project and improved management and maintenance of public housing.

Recommendations

1.9 The OoH should consistently assess contractor performance against performance benchmarks.

1.10 The OoH should implement a process for applying liquidated damages for overdue maintenance.

1.2.5 General information on the follow-up audits

The audits in this report were performed in accordance with the Australian auditing standards. The total cost was $572 000. This cost includes staff time, overheads, expert advice and printing.

Follow-up of our 2003 audit

2 Managing medical equipment in public hospitals

At a glance

Background

This follow-up audit examines the progress made in addressing the recommendations from our 2003 report, *Managing medical equipment in public hospitals*. In the 2003 audit, we examined the efficiency and effectiveness of the management, maintenance and replacement of major medical equipment (around 4 300 items) by 19 of Victoria's 91 public hospitals. We also examined the role of the Department of Human Services (DHS) in improving the asset management practices of hospitals, and its processes for allocating equipment funding.

This follow-up audit examined the progress made by DHS and the 19 hospitals in implementing the recommendations made in the 2003 audit.

Key findings

- DHS has initiated several projects to assist hospitals to improve their asset management policies and practices. Most hospitals were preparing an asset management plan, more were assessing the life expectancy of their medical equipment and most were regularly monitoring utilisation levels of major items.
- Although DHS has taken steps to pursue value-for-money opportunities in the procurement of medical equipment, more should be done through Health Purchasing Victoria (HPV).
- Sixteen hospitals were now using risk-based principles when determining the nature and frequency of preventative maintenance.
- DHS has taken steps to improve the transparency of the targeted equipment funding process. The process also involves greater consideration of the risk if equipment is not replaced.

Key recommendation

2.1 That DHS continues to pursue opportunities with HPV to increase cost efficiencies for the sector in purchasing medical equipment.

2.1 Introduction

In March 2003, the Victorian Auditor-General's Office completed an audit of *Managing medical equipment in public hospitals*. That audit examined the efficiency and effectiveness of the management, maintenance and replacement of major medical equipment by 19 of Victoria's 91 public hospitals (refer Appendix A2). The audit also examined whether the Department of Human Services (DHS) was improving asset management practices of hospitals, and its processes for allocating equipment funding.

Around 4 300 items of medical equipment were examined in the 2003 audit, covering 2 groups, namely:

- 5 of the most costly items of equipment (e.g. magnetic resonance imaging systems and computed tomography scanners)
- essential items used in nearly all hospitals for the treatment of 3 common conditions: heart attack, chest pain and hip replacement (e.g. infusion pumps, physiological monitoring systems and ventilators).

The 2003 audit made a range of recommendations covering asset management plans and registers, maintenance practices, procurement of equipment, hospital funding submissions and DHS' role in asset management.

This follow-up audit examined the progress made by DHS and the 19 hospitals in implementing the recommendations made in the 2003 audit.

2.2 Overall conclusion and recommendation

Action is in train to address the 2003 audit recommendations and improve the asset management practices of hospitals and the equipment funding process. Progress to date is satisfactory.

Actions initiated by DHS, in conjunction with hospitals, include developing an asset management framework and improving information technology and communication systems. Work completed to date includes the development of a tool for prioritising equipment replacements and an information package for hospitals aimed at improving the transparency of the equipment funding process. Greater consideration is now being given to the risks attaching to the timely replacement of equipment.

More work should be undertaken to increase cost efficiencies on equipment purchases through HPV. Seventeen of the 19 hospitals examined in this audit have acted on the 2003 recommendations. A number of them acknowledged that scope exists for further improvement.

Recommendation

2.1 That DHS continues to pursue opportunities with HPV to increase cost efficiencies for the sector in purchasing medical equipment.

2.3 Development of asset management plans and asset registers

In 2003, we found that, in general, hospital asset management policies and practices were not consistent with either the Department of Treasury and Finance's Asset Management Series (guidelines), or industry best practice. None of the hospitals had established comprehensive asset management plans, and none had complete and accurate information to enable preparation of such plans. There were also weaknesses with hospital asset registers.

We recommended that hospitals prepare asset management plans, develop a single asset register using standard equipment classifications, periodically assess equipment life expectancy and condition, and regularly monitor major equipment utilisation. Improved information technology systems would assist asset management practices. In response to these recommendations, DHS initiated a number of projects.

Our follow-up audit found that the Medical Equipment Asset Management Framework (MEAMF) project commenced in October 2005. The project involves the development of a framework with standardised asset management processes and guidelines, and medical equipment asset management templates. The framework, which will be available for use by all public health services, is being developed and implemented in 3 phases (develop by June 2007, pilot by December 2007 and roll-out by December 2008). An evaluation of the project is to be completed by December 2009.

Work to date has resulted in the development of an agreed tool for determining relative priorities for the replacement of medical equipment. A standard method for prioritising medical equipment replacement requirements across the acute health system has also been developed.

Our follow-up audit also found that in 2003, DHS initiated the Health*SMART* program to improve health information technology and communication systems. It is a 4-year (2003-2007), $323 million program. A component of the Health*SMART* Financial Management Information System (FMIS) is directed at the development of a module for managing assets. Currently, the new system is operational in 14 hospitals and associated care centres, and is being implemented at a further 6 hospitals. The asset management component is currently under active consideration by agencies for utilisation within the near future.

DHS also partially funded the Victorian Healthcare Association (VHA, the major health sector peak body) to undertake a capital expenditure and management review, completed in 2005. The review identified the importance of the development of an asset management framework and high-level asset management principles. DHS is adopting those high-level principles in its development of the MEAMF.

To follow-up actions taken on the 2003 audit recommendations, Audit surveyed 19 hospitals. Responses were also followed up at a selection of hospitals. Audit found that:

- 17 of the hospitals (89 per cent) surveyed had prepared an asset management plan, although 11 of them (58 per cent) considered it needed to be improved
- 2 hospitals (11 per cent) had not prepared a plan. Ten hospitals (53 per cent) had estimated their equipment replacement funding requirements for a minimum of 5 years, in line with best practice
- 4 of these hospitals (21 per cent) considered their estimates needed to be improved. The remaining 9 hospitals (47 per cent) had not prepared 5-year funding forecasts.

In 2003, only one hospital (5 per cent) was in the process of developing an asset management plan.

More hospitals were now assessing the life expectancy and condition of their equipment assets:

- 14 (74 per cent) of the hospitals surveyed used guidelines that reflect industry best practice to periodically assess the life expectancy of their medical equipment. Five of these hospitals (26 per cent) considered their guidelines need to be improved. The remaining 5 (26 per cent) did not use guidelines
- 15 hospitals (79 per cent) regularly determined the condition of their medical equipment using a standardised assessment system. Seven (37 per cent) of these hospitals considered their assessments could be improved. The remaining 4 hospitals (21 per cent) did not undertake assessments.

In 2003, only 2 of the 19 hospitals (10 per cent) undertook life expectancy and condition assessments of their equipment assets.

The utilisation levels of major equipment items are now regularly monitored by 10 (53 per cent) of the hospitals surveyed. Three of them (16 per cent) considered their monitoring could be improved. The remaining 9 (47 per cent) did not monitor utilisation levels. In 2003, only 4 hospitals (21 per cent) monitored equipment utilisation levels.

2.4 Procurement of medical equipment

In 2003, we found that, across Victoria, hospitals and health services purchased equipment, services and goods in excess of $750 million per year covering over 30 000 items. We also found that 16 of the hospitals purchased equipment independently of each other and it was rare for hospitals to consolidate their combined purchasing powers and expertise.

That audit recommended that DHS and hospitals pursue cost efficiency opportunities in the procurement of medical equipment.

DHS has taken steps to address this recommendation. For example, it is:

- continuing to work with HPV, the central procurement agency for the health sector, to explore possibilities for better value-for-money procurement, including through pursuing opportunities with other agencies
- pursuing the potential for Victorian health services to use New South Wales contracts with the New South Wales Department of Commerce
- developing the MEAMF, which is expected to provide more accurate estimates of long-term medical equipment funding requirements, better forward planning and opportunities for procurement efficiencies.

Audit identified that 17 hospitals (89 per cent) considered that they had improved their processes to achieve value-for-money, e.g. establishing product evaluation committees and improving the negotiation skills of staff involved in procurement.

HPV's activities have not yet been expanded to encompass medical equipment. This Office's performance audit, *Health procurement in Victoria*, tabled in Parliament in October 2005, concluded that HPV needs to start targeting its central contracting activities to goods with the potential to deliver larger savings to the sector, such as medical equipment and prostheses.

2.5 Maintenance of medical equipment

Our 2003 audit found that, overall, the equipment examined was well-maintained by the 19 sample hospitals. Potential existed to reduce maintenance costs through adopting risk-based principles in determining the nature and frequency of preventative maintenance. For around half of the sample hospitals, scope existed to improve the quality of maintenance processes, by requiring the service provider (internal or external) to be accredited under a recognised quality standard.

In 2003, Audit recommended that hospitals adopt risk-based principles when determining the nature and frequency of preventative maintenance. Obtaining external quality accreditation, subject to assessing the costs and benefits, could improve maintenance processes.

Our follow-up audit identified that:

- 16 (84 per cent) of the hospitals used risk-based principles when determining the nature and frequency of preventative maintenance
- 4 (21 per cent) of these hospitals indicated their processes require improvement
- 3 hospitals (16 per cent) did not use risk-based principles.

In 2003, fewer hospitals were using risk-based principles.

Our follow-up audit also identified that:

- 10 (53 per cent) of the hospitals surveyed had made progress towards evaluating the costs and benefits of the in-house maintenance department obtaining external quality accreditation
- 9 (47 per cent) had not made any progress.

In 2003, the maintenance provider in 9 hospitals (47 per cent) was accredited under a recognised quality standard.

We also found that some hospitals considered they would not benefit from having their in-house maintenance departments obtain external quality accreditation. They considered greater benefits could be derived through establishing product reference groups to share information and experiences. This group could consider aspects such as the nature and frequency of preventative maintenance for particular products, agreements with external maintenance service providers, warranty agreements and leasing options. Industry associations can also provide information and resources to assist in the use of best practice principles in equipment maintenance.

2.6 Hospital funding submissions

In 2003, we concluded that there was scope to improve DHS' process for assessing hospital submissions for targeted equipment funding. Information on full life cycle costs, utilisation levels, and equipment condition was not sought. For regional hospitals, one DHS regional office had developed formal criteria for assessing the priority of submissions, and formal feedback to hospitals on unsuccessful submissions was not provided.

We recommended that DHS:

- obtain additional information from hospitals to facilitate a more stringent assessment of their major equipment needs
- enhance the transparency and rigor of its selection and prioritisation process
- provide a formal response for funding submissions not supported
- review the level of equipment funding currently provided to hospitals in the context of their future equipment replacement and maintenance needs, including the funding of depreciation costs.

In response to our 2003 audit, DHS has undertaken the following:

- a Targeted Equipment Program (TEP) information package has been developed for hospitals aimed at improving the transparency of the process. It provides an outline of the conditions of funding, additional information taken into consideration, exclusions to funding and an overview of the processes used to assess submissions
- the TEP submission process now involves greater consideration of risk (i.e. the level of risk if equipment is not replaced). Standard criteria and guidelines for funding have been developed and life cycle costs and expected utilisation levels of the replacement equipment are considered.

During 2006, DHS undertook a major review to identify the replacement requirements of medical equipment across the health system. In addition to providing a clear indication of replacement requirements, the review provided a basis on which to develop the MEAMF and future budget bids.

2.7 Role of the Department of Human Services in improving asset management

In 2003, we found that although hospitals operate as autonomous entities, DHS could provide a higher level of support and oversight.

We recommended that DHS develop a strategic framework for managing medical equipment and adopt a more pro-active role in guiding hospitals in the development of medical equipment asset management plans.

Our follow-up audit found that these recommendations are being addressed through the MEAMF, the Health*SMART* (FMIS) information technology program and the VHA review. As previously stated, DHS expects that hospitals are benefiting from these initiatives as the components are progressively developed and implemented.

RESPONSE provided by the Secretary, Department of Human Services

DHS accepts:

- *the report "Managing medical equipment in public hospitals, follow-up of our 2003 audit"*
- *the recommendation that "DHS continues to pursue opportunities with HPV for increased cost savings for the sector in purchasing medical equipment".*

It is pleasing to note in the report the acknowledgement of the work that DHS and Victorian public health services have undertaken in regard to addressing the Auditor-General's recommendations put forward in the March 2003 report "Managing medical equipment in public hospitals.

In particular, the collaboration shown between Victorian public health services and DHS has seen important strategic medical equipment asset management benefits through:

- *the ongoing development of the MEAMF*
- *refinement of the TEP process*
- *work conducted by Victorian public health services in improving overall medical equipment asset management processes and procedures.*

DHS will continue to work with health services and HPV to improve the strategic management of medical equipment.

RESPONSE provided by the Chief Executive, Barwon Health

In our view, the report is a fair summary of the improvements in process which have been made since the 2003 report. However, in our view, there are several issues of relevance which, unless addressed, are unlikely to ensure recent improvements are sustainable.

Availability of a reasonable level of funding

In our view, there has been deterioration in the level of available funds to support equipment replacement and the reasons are not well understood.

Prior to casemix (pre-July 1993)

Prior to casemix, health services were able to apply profits from special purpose funds (SPFs) and business units (BUs) to "top up" capital grants. After casemix, profitability was calculated post-inclusion of net income from SPFs and BUs, so this source of funds was effectively removed, as few health services were able to record surpluses in addition to coping with contracting budgets.

June 2002

Prior to June 2002, the equipment and infrastructure grant was generally accounted for as a capital grant and was applied to finance replacement of routine items of equipment, as well as replace some infrastructure.

DHS Circular 17/2002, which applied for the 2001-02 and subsequent financial years, had the effect of re-categorising the equipment and infrastructure grant from capital to operating. While this gave the appearance of an improvement in health service operating profitability, it effectively halved the level of grant funds available to replace equipment.

The combination of the above changes has acted to significantly reduce the sources of income available to health services for capital purposes.

The present level of funding available under the TEP is approximately $30 million per annum (excluding special one-off government allocations). While this position remains, we see no real prospect of improvement in outcomes, with an increase in the ageing of equipment in use and/or further deterioration of health service working capital.

Assessment of priorities

The current MEAMF relied upon a technical assessment of equipment assets by the Monash Centre of Biomedical Engineering. As each year passes, the data from the previous assessment will become less relevant. It is not clear to us how this prioritisation process, which is a key element in sustaining the MEAMF, will occur in the future.

RESPONSE provided by the Chief Executive, Peninsula Health

I consider that the report fairly reflects that there has been progress since the previous audit report in the areas of developing asset management plans, improved priority setting and clearer submissions.

However, regarding the recommendations from the 2003 report that the level of equipment funding provided to hospitals should be reviewed, and that the funding of depreciation should be progressed, there has been less progress. Some increased funding has been provided through the TEP, however, this program has a limited life, is based on detailed submissions for individual items and has no guarantee of future funding. This severely limits an agency's ability to undertake systematic management and replacement of medical equipment.

As noted in the current audit, DHS has undertaken a major review of the replacement of medical equipment across health services and this information could provide the basis of systematic capital funding for health services. Such a systematic arrangement would be far preferable to submission-based funding rounds which tend to be ad hoc and require significant administrative effort.

It should also be recognised that this weakness is not limited to medical equipment. It also applies to other assets such as non-medical equipment, IT equipment and buildings where there are no systematic funding mechanisms for the replacement of these capital items. Funding for services relates to operating costs without an allowance for capital replacements. This is supplemented by capital funding rounds (e.g. for IT or infrastructure), but these arrangements are submission-based, administratively cumbersome and do not facilitate improved asset management.

While it is recognised that major hospital additions are a key part of government capital planning, the replacement of other assets are an integral part of a health service's ongoing service provision and movement to systematic funding of capital replacement or depreciation would enhance asset management in the sector.

RESPONSE provided by the Chief Executive Officer, West Gippsland Healthcare Group

The practicalities of implementing recommendation 2.1 will prove difficult within the Victorian context as clinician and product evaluation processes are health service/hospital-based (although as the report suggests, HPV is the obvious agency to manage these issues). We would recommend that prioritisation should be given to electronic thermometers and the various pump units (relatively low individual, high in volume) and inclusion of their related consumables.

RESPONSE provided by the Chief Executive Officer, West Gippsland Healthcare Group - continued

Section 2.3

We support the move to ECRI standards through the implementation of the MEAMF. Asset planning at this health care group has been integrated with the business planning process.

Section 2.4

We would welcome the opportunity to access centrally negotiated pricing for prosthetics and medical equipment.

Section 2.5

We will continue to manage the maintenance of medical equipment through service agreements and the services of our contracted biomedical engineering service provider.

Section 2.6

We would support the increase of medical equipment funding to address the following key drivers:

- *assist in the more timely replacement of clinical assets*
- *increasing the number of medical devices being adopted for use as part of the current standard of clinical practice (to enhance clinical care, reduce risk and overall improve patient outcomes)*
- *in many cases, the recommended active life of a medical device has been reduced by the manufacturer and enforced through the restriction of spare parts and selection of materials that would match this life span*
- *funding consideration also be given to non-clinical assets that can significantly impact on health service operations (e.g. plant, kitchen equipment etc.).*

We support the 2003 recommendation that DHS fund annual depreciation costs:

- *in competing for TEP funds for asset replacement, the submission/selection process should place greater emphasis on the written-down value of the asset as this reflects its utilisation level, condition and remaining effective life and, hence, probability of need to replace*
- *DHS set/mandate effective lives and depreciation rates for medical equipment so agencies do not manipulate the process to claim extra depreciation funding (e.g. higher depreciation rates, accelerated depreciation verses straight line).*

Appendix 2A

List of hospitals covered in the 2007 audit

Austin Hospital

Ballarat Health Services

Bendigo Health

Box Hill Hospital

Colac Area Health

Echuca Regional Health

Frankston Hospital

Goulburn Valley Health

Latrobe Regional Hospital

Monash Medical Centre – Clayton Campus

Northeast Health Wangaratta

Portland District Health

The Alfred Hospital

The Geelong Hospital

The Northern Hospital

The Royal Melbourne Hospital

West Gippsland Hospital

Western Hospital

Wimmera Base Hospital

Follow-up of our 2003 audit

3 Addressing the needs of Victorian prisoners

At a glance

Background

This follow-up audit examines the progress made in addressing the recommendations from our 2003 report, *Addressing the needs of Victoria's prisoners.* In the 2003 audit, we examined the initial implementation of a series of reforms to the assessment and management of prisoners aimed at improving the identification of, and response to, the risk of re-offending.

Key findings

- The offender management and monitoring practice in prisons has improved and is driven by an effective change management strategy.
- Progress has been made towards ensuring that all eligible prisoners receive a formal risk and needs assessment.
- Rehabilitation programs addressing offending behaviour have been fully developed and implemented, but not yet made available to prisoners to the extent intended.

Key recommendations

3.1 That CV better aligns the scheduling and delivery of offending behaviour programs so that eligible prisoners can access relevant programs as needed.

3.2 That CV identifies targets for completing timely assessments of risk and needs for eligible prisoners, and routinely reports on actual performance against these targets.

3.3 That CV develops measures to evaluate the impact of the re-offending reduction initiatives in Victoria, building on CV's research and recommendations on patterns of recidivism.

3.1 Introduction

Our 2003 audit, *Addressing the needs of Victorian prisoners*, focused on Corrections Victoria's (CV's) implementation of prison-based initiatives under the Reducing Re-offending Framework (RRF). The audit reviewed the adequacy of processes in place, or under development, aimed at ensuring prisoner needs were properly identified and addressed.

The audit found that the newly introduced approach to assessing, managing and treating prisoners represented a major shift in correctional practice in Victoria, was well researched, and was built on a strong evidence base. Several issues were identified that required further attention before benefits could be optimised.

Ten recommendations were made, addressing the following areas:

- assessment and management of prisoners
- provision of rehabilitation programs aimed at reducing re-offending
- management and oversight of reforms.

Our follow-up audit examined progress by CV in addressing the recommendations from the 2003 report. It also examined how CV is measuring the effectiveness of the reforms.

Our follow-up audit also involved the review and analysis of CV documents, data, processes and interviews with key staff. To assess the extent of improvements since our original audit, we visited 2 prisons included in the original audit (Barwon Prison and Dame Phyllis Frost Centre), and 2 additional prisons (Dhurringile Prison and Marngoneet Correctional Centre).

Audit interviewed prison managers and key staff, and reviewed a selection of prisoner files. We also surveyed custodial staff in all Victorian prisons about the new initiatives.

3.2 Overall conclusions and recommendations

Since the 2003 audit, CV has continued to implement reforms designed to effectively identify and address the risk of prisoners re-offending. The reforms rely on 3 key initiatives: the robust assessment of risk and need, evidenced-based rehabilitation programs designed to change behaviour, and a new approach to offender management.

Key achievements include:

- progress in implementing new offender management practices in prisons
- opening of the Marngoneet Correctional Centre, a prison specialising in offender management and intervention to reduce re-offending
- progress towards ensuring that all eligible prisoners receive a formal risk and needs assessment
- a reduction in the rate at which offenders are returning to Victorian prisons, from 42.5 per cent in 2001-02, to 36.5 per cent in 2005-06.

Further improvement is required to:

- maintain a high level of compliance with the requirement that all eligible prisoners receive an assessment of risk and need in a timely manner
- schedule and deliver offending behaviour programs according to identified prisoner needs
- develop performance measurement and reporting systems for the reducing re-offending reforms as a whole, and for each of the 3 key initiatives
- enhance evaluation efforts to assess the effectiveness of individual reform initiatives, i.e. their impact on prisoner re-offending.

While the downward trend in the recidivism rate is positive and coincides with the introduction of the reducing re-offending reforms, it is possible that factors not associated with the reforms may also be affecting the rate at which offenders are returning to prison.

Recommendations

3.1 That CV better aligns the scheduling and delivery of offending behaviour programs so that eligible prisoners can access relevant programs as needed.

3.2 That CV identifies targets for completing timely assessments of risk and needs for eligible prisoners, and routinely reports on actual performance against these targets.

3.3 That CV develops measures to evaluate the impact of the re-offending reduction initiatives in Victoria, building on CV's research and recommendations on patterns of recidivism.

3.3 Assessment and management of prisoners

3.3.1 Prisoner risk and needs assessment

In September 2002, CV introduced individual assessment of the risk of re-offending and rehabilitation needs for male prisoners serving sentences of 6 months or longer, and female prisoners serving sentences of 4 months or longer.

Between 1 September 2002 and July 2003, 55.5 per cent of eligible male prisoners and 79.9 per cent of eligible female prisoners were assessed. We recommended that CV establish processes to ensure that all eligible prisoners receive a timely assessment.

Our follow-up audit found that since 2003, CV has:

- improved its assessment completion rates
- developed and disseminated key policy, standards and communications documents, and conducted staff training to reinforce the role of the assessments in identifying rehabilitation needs and the risk of re-offending.

There are now 5 permanent assessment officer positions, based at the Melbourne Assessment Prison, and rotating through Victoria's reception prisons. Their roles have been incorporated into the Sentence Management Unit within CV to improve support and supervision arrangements, and to ensure that the roles are better linked to the offender management initiatives.

System-wide data indicate that completion rates for assessments have improved since 2003, as summarised in Figure 3A.

Figure 3A
Assessment completion rates

	2004	2005	2006
No. of prisoners eligible for assessment	2 080	1 924	2 134
No. of assessments undertaken per year	2 253	1 909	1 736
Assessment completion rate (%)	*(a)* 108	99	81

(a) The number of assessments in 2004 was greater than the number of prisoners entering the system as a result of a 'catch-up' process to address a backlog of assessments for prisoners who were in the system prior to the introduction of the assessment process.

Source: Corrections Victoria.

In 2005, almost all eligible prisoners received an assessment. However, in 2006, there was a substantial decline in performance: almost 20 per cent of eligible prisoners were not assessed. CV advised that this was due to the commissioning of 2 new prisons (Marngoneet Correctional Centre and the Melbourne Remand Centre) and a decision taken to maximise the safety and security of the system while prisoners moved into and through the newly configured system. CV recognised that as a consequence of the logistical and resourcing challenges during this period, it was likely that assessment completion rates would be adversely affected.

In our follow-up audit, we reviewed a random selection of 57 files of prisoners eligible for assessment across 4 prisons to assess the extent to which the implementation of reforms had translated into changed practices within prisons. Our review showed that:

- assessments had not been completed for 10 per cent of the files reviewed
- 14 per cent of assessments were not timely, i.e. completed before the prisoner's classification was determined.

Responses from the majority of prisons we surveyed also indicated that prison management did not believe all eligible prisoners received timely assessment.

In 2003, we reported that due to delays in developing an assessment tool designed for use in the Victorian prison system, CV implemented an interim tool to assess risk of re-offending and rehabilitation needs. This tool was the Level of Service Inventory Revised Screening Version (LSI-R:SV).

A new tool, the Victorian Intervention Screening Assessment Tool (VISAT), has since been developed and implemented in community correctional services. However, implementation of VISAT in the prison system has not yet proceeded due to delays in implementing the Department of Justice's (DoJ's) E*Justice system, an integrated information system designed to link the courts, police and corrections. CV advised that the introduction of VISAT remains dependent upon the availability of the E*Justice platform, and is still at least 12 months away. In the interim, it continues to use LSI-R:SV.

3.3.2 Prisoner management

Offender management initiatives under the RRF aim to strengthen the role of custodial staff in monitoring prisoner needs and progress toward goals, coordinating access to appropriate programs and promoting "pro-social" behaviour.

In 2003, we reported that improvements were needed in the use of assessment information in prisoner planning and management. We recommended that prison staff actively monitor progress against prisoner local management plans (LMPs) and record this information in the prisoner's file. We also recommended that CV implement a systematic and coordinated approach to ensure that prison staff complete relevant training in a timely manner to improve the management of prisoners.

Our follow-up audit identified improved offender management planning and monitoring practice in prisons. This was facilitated by CV through a range of quality assurance, information, training and workforce initiatives.

We also found that in July 2004, CV outlined the principles for offender management in the policy and standards document, *Offender Management Framework: Prisons and Community Correctional Services*. CV has also promoted monitoring of prisoner progress against LMPs and recording this information in prisoners' files through:

- developing offender management standards that outline the new practices
- developing an Offender Management Framework (OMF) communication package, released in November 2006
- training of custodial and other staff
- establishing offender management supervisor positions in prisons to supervise, train and mentor custodial staff
- conducting monthly file audits within prisons to monitor a range of compliance issues, including the development of LMPs and recording of progress notes.

A comprehensive training package was developed to introduce new recruits to the concepts and practical application of the OMF. Training was rolled-out through 17 training courses reaching almost 300 staff over 2005 and 2006.

Training for ongoing staff is the responsibility of individual prisons. Offender management supervisors have a key role in delivering training within prisons and the OMF training package is designed to be used for refresher as well as new recruit training.

While the majority of prisoner files reviewed in 2003 contained a completed LMP, in most cases there was little evidence that the assessment information had been incorporated in the LMPs.

In contrast, our follow-up audit showed that an LMP was developed and placed on file in 55 of the 57 files reviewed. In 82 per cent of cases, the assessment information was used in developing the LMP. In the remaining 18 per cent of cases, assessment information had not been incorporated into the LMP.

The majority of respondents to our survey believed that:

- an LMP is completed for all prisoners
- guidance was available to staff on using assessment information to plan offender management
- staff could easily access assessment reports to assist in offender management.

Our visits to 4 prisons and review of prisoner files indicated that progress notes were consistently recorded in prisoner files. However, their quality and completeness varied. We observed that at the Marngoneet Correctional Centre and the Dame Phyllis Frost Centre, oversight of offender management practices included specific attention to improving the quality of file notes. Progress notes reviewed at these 2 prisons were generally more detailed and comprehensive than at the other prisons visited.

Feedback from general managers and offender management supervisors at the 4 prisons indicated they found the OMF communication package to be useful.

Survey responses relating to the availability and adequacy of staff training were divided. Our interviews and observations at the 4 prisons suggest that planning and delivery of formal training for existing custodial staff varies across prisons.

3.4 Rehabilitation programs aimed at reducing re-offending

In 2003, we reported that CV had adopted a well-researched approach to developing new prisoner rehabilitation programs designed to target the offending behaviour of those prisoners with the highest risk of re-offending. The full suite of 4 programs (cognitive skills, sex offending, drug and alcohol, and violent behaviour programs) was not operational at the time and we identified a number of issues impacting on prisoner access to programs.

3.4.1 Program development and delivery

In 2003, we recommended that CV continues to develop its rehabilitation programs to ensure that prisoner needs are addressed in a timely manner.

Our follow-up audit found that:

- the full suite of offending behaviour programs is now operational; a revised drug and alcohol program was introduced in 2004, and the violent behaviour program was finalised and introduced in 2005
- operating manuals and program specifications, to support consistent delivery, are in place for all programs
- an evaluation has been undertaken or commissioned for each program.

Performance information shows that since 2003-04:

- overall annual targets for the number of prisoners commencing cognitive skills, sex offending and violence intervention programs have not been met. In 2005-06, the target for these programs was 646 but the number achieved was 411; a shortfall of 36 per cent
- annual targets for the number of prisoners commencing drug and alcohol offending behaviour programs have been met, or exceeded
- targets for program completion have been met or exceeded. However, completion rates are not always reported in annual data
- while all 4 offending behaviour programs are now operational, only the drug and alcohol programs have been scheduled and made available to prisoners to the extent intended in 2003.

Program commencement rates indicate that the scheduling and delivery of programs is not reaching the intended number of prisoners. However, the available data suggest that the take-up by prisoners, and follow through, is high once the programs are accessed.

Opening of the Marngoneet Correctional Centre in 2006 introduced a new specialist focus for program delivery and added to the rehabilitation capacity of the prison system. This is a milestone in implementing the reducing re-offending reforms and the centre provides a central focus for the delivery of the offending behaviour programs.

We visited the Marngoneet Correctional Centre and observed that the 4 offending behaviour programs operate as part of “core business”, with prisoner participation the norm rather than the exception. The prison is fully operational and should enhance the prison system’s capacity to provide targeted rehabilitation programs.

3.4.2 Barriers to participation

In our 2003 audit, prison staff identified a range of barriers to prisoner participation in rehabilitation programs and we recommended that CV develop strategies to address them.

CV has since developed and introduced a number of modified versions of the offending behaviour programs designed to increase participation in, access to, and relevance for, offenders with special needs. These include:

- a cognitive behaviour program for offenders with cognitive impairment
- a modified cognitive skills program for Koori offenders
- a sex offending program for offenders with a cognitive impairment.

Two further programs are under development:

- an indigenous drug and alcohol program
- an indigenous violence intervention program.

A policy framework which outlines rehabilitation planning and actions tailored to the needs of offenders with a disability is also being finalised.

CV’s rehabilitation programs addressing offending behaviour have been designed to be delivered in a group format to achieve maximum impact in line with best practice research. However, programs targeted to individual prisoners can be delivered where a need is specifically identified.

Our survey of prisons conducted in December 2006 indicates that issues identified in 2003 continue to be perceived as barriers to participation in rehabilitation programs at some prisons. These perceived issues include the absence of individual treatment strategies for special needs prisoners, movement of prisoners between facilities and the lack of incentive for prisoners to participate. Survey respondents also identified a lack of resources, particularly clinical staff, as a further barrier.

At the local prison level, we observed efforts to address some of the barriers to participation. For example, at Marngoneet Correctional Centre, a policy decision had been taken to offer an equal rate of pay to prisoners for time spent working in prison industries and time spent participating in offending behaviour programs.

At Barwon Prison a number of operational factors were impacting on the scheduling of programs. These factors were consistent with the challenges and priorities of a maximum security environment, and included the numbers of prisoners in protective custody, the availability of clinical staff resources and a restricted “out of cell hours” regime.

The scheduling of offending behaviour programs is negotiated by CV with individual prisons and is influenced by a range of factors, including prisoner profile and availability of suitable groups of prisoners at a location (generally 8-12 participants per group is preferred).

Our follow-up audit suggests that the limited scheduling of programs is the major barrier to prisoner participation. Feedback from interviews with offender management supervisors at the 4 prisons visited indicated that outside of Marngoneet Correctional Centre, the offending behaviour programs are scheduled infrequently and long waiting periods often exist.

CV advised that following the 2006 re-configuration of the prison system, offending behaviour programs for male prisoners are being progressively centralised at the Marngoneet Correctional Centre. This is aimed at improving program scheduling and continuity, reducing the movement of prisoners who participate in offending behaviour programs and facilitating prisoner participation.

3.5 Management and oversight of reforms

In 2003, we reported that implementation of the Reducing Re-offending Framework (RRF) had been affected by shortcomings in project management and governance. We recommended that CV continue to review its project management and governance arrangements.

Since 2003, CV has made progress in addressing this recommendation. During this audit, we found that a project management methodology was in use for a selection of projects examined. Documentation was of good quality with clear specification of objectives and purpose, responsibilities, timelines and resources. Attention was given to identifying and mitigating risks. Project boards had been established for major projects, or a series of linked projects, to provide senior management oversight of project implementation and delivery on a regular basis.

In 2003, we examined management of the contract for the development of the VISAT assessment tool and identified a lack of rigorous monitoring of the performance of the contractor, project timelines and deliverables. Our follow-up audit found improved contract management practices. A project board, and regular monitoring and reporting of progress and risks have been established for the project.

However, our follow-up audit reinforced our 2003 finding that the timelines and scope for the project were ambitious, particularly as it was contingent upon progress of a major IT infrastructure project not entirely within CV's control. Re-negotiation of the final stage of the contract was necessary once it became clear that empirical testing and data analysis to validate the assessment tool could not be delivered due to delays with the DoJ's E*Justice system.

3.5.1 Quality assurance

Our follow-up audit found that a range of quality assurance processes are now in place in prisons and at CV, including:

- the OMF policy and standards document, released in 2004, which guides the work of offender management supervisors and provides standards for monitoring and assessing the success of offender management practices
- systematic, quality monitoring through monthly file audits at prisons with results reported to prison management.

However, there is no central, overarching mechanism for monitoring prisoner assessment and management practice standards across the custodial system.

We found that CV is enhancing its quality assurance processes by developing:

- new instructions that outline offender management requirements and will enable formal assessment of actual practice
- a formal methodology to enable periodic assessment of rehabilitation program delivery against program standards and manuals.

3.5.2 Change management

Our 2003 audit report acknowledged the significant cultural and organisational change required to successfully implement the new offender management practices across Victoria's prisons. To effect this, we recommended that CV develop a change management and communications strategy to facilitate the changes.

CV has since introduced a number of linked communication, training and work force development initiatives designed to drive change across the prison system.

The key change management initiative has been the introduction of offender management supervisor positions within prisons. The positions were designed to act as "change agents" and our interviews with general managers at 4 prisons indicate that they continue to play a critical role in driving the offender management practice changes.

Our follow-up audit indicated that the change management and communication initiatives are effectively engaging prison management and custodial staff in the program of reforms.

3.6 Performance measurement and reporting

In 2003, we reported that CV had established a performance measurement and reporting framework incorporating performance standards and targets for reducing re-offending and increasing participation of prisoners in rehabilitation programs. As all programs were not operational at the time, available information was partial, and therefore of limited value.

Audit recommended that the performance framework be further developed to support management of the RRF with timely and high quality information.

Our follow-up audit indicated that:

- some information identified in the performance management framework is not routinely reported, e.g. the rate of re-offending and "bed diversion" (the diversion of offenders from prison) identified in 2003
- performance information for alcohol and drug offending behaviour programs (delivered by external contractors) is reported separately to the other 3 offending behaviour programs
- performance measures address only one of the 3 key planks of the prison-based reforms – the offending behaviour rehabilitation programs. There are no performance measures or targets in place for the risk and need assessment or offender management initiatives.

We also found that CV is acting to improve the timeliness and quality of performance reporting against its service delivery outcomes, including program commencement and completion. A new monthly reporting format from prisons to CV will allow quarterly reporting on all 4 offending behaviour programs in one report.

3.7 Evaluating the reforms

This audit sought to identify whether:

- there is a clear, soundly-based review and evaluation strategy in place for the prison-based reducing re-offending reforms
- the evaluation strategy is supporting ongoing implementation and further development of the reforms.

We found a strong evaluation culture within CV. Along with individual rehabilitation program evaluations, CV are progressing 3 review and evaluation initiatives to inform ongoing service development and implementation:

- a review of the RRF service delivery model, which focuses on improving the efficiency and effectiveness of the prison-based RRF reforms. A report is due in the first half of 2007

- the Reducing Re-offending Strategy Evaluation Framework, to enhance evaluation capacity within CV, provide guidance in decision-making, and support policy and investment choices associated with the RRF. A report is due in August 2007
- a draft report, *Who returns to prison? – Patterns of recidivism among prisoners released from custody in Victoria in 2002-03*, examining patterns of recidivism in Victoria, difficulties in measuring recidivism, and identifying an improved approach.

Our follow-up audit found that the development of the Reducing Re-offending Strategy Evaluation Framework is designed to assist CV to understand the overall impact of the RRF strategy. The delay in implementation of VISAT means that CV has not had the depth or quality of data on the offending-related needs and profile of the prisoner population to fully support and inform such evaluation.

However, CV has taken action, as part of the review of the RRF service delivery model, to pilot the delivery of VISAT in prisons. Approximately 700 assessments have been completed to date. The data from the pilot will assist in identifying the distribution and profile of the risk of re-offending and offending-related needs within the Victorian prisoner population. Based on this data, service planning and evaluation initiatives can proceed while waiting for the introduction of VISAT within the prison system.

Recidivism research undertaken to date by CV provides a comprehensive overview of how rates of return to prison could be measured more effectively and accurately, including the impact of offender management and rehabilitation reforms. It also identifies the potential to do this in Victoria once the VISAT tool and E*Justice system are fully in place, and suggests the next research priorities. We recognise the importance of such work to build Correction Victoria's capacity to better evaluate the effectiveness of the RRF initiative.

RESPONSE provided by the Secretary, Department of Justice

The 2003 report, Addressing the needs of Victorian prisoners, examined a major reform for Victorian corrections in the management of prisoners in its system. The RRF (as a component of the government's Corrections Long Term Management Strategy) provided CV with a new service delivery model for the assessment, treatment and management of offenders informed by international research and meta-analysis studies on "what works" in reducing re-offending. This has been supported by the development and expansion of a range of best-practice rehabilitation programs targeting sex offending, violence, substance abuse, and adaptive skills and problem solving.

RESPONSE provided by the Secretary, Department of Justice - continued

The overarching aim of the RRF has been to reduce re-offending through a system of differentiated offender management, with offenders assessed as having the highest risk of re-offending targeted for rehabilitation interventions. Implementation of the RRF has involved a major change to correctional practice and a significant challenge for CV. This follow-up audit is a timely examination of the DoJ's delivery of this major program of reform, as well as its progress in responding to the 10 recommendations of audit in its original report.

The follow-up audit has highlighted key achievements by CV. The most important of these is a reduction in the rate at which offenders are returning to Victorian prisons, from 42.5 per cent in 2001-02 to 36.5 per cent in 2005-06.

DoJ notes the key findings of audit, and accepts its 3 key recommendations.

While the follow-up audit is timely, it also took place at a time of unique system changes and pressures for the Victorian prison system. This was the commissioning of 2 major new prisons (the 300-bed Marngoneet Correctional Centre and the 600-bed Metropolitan Remand Centre). During 2006, this important process severely impacted upon the assessment of prisoners at reception for risk of re-offending, and upon delivery of offending behaviour programs. Within this report, Audit notes the decline in the percentage of eligible prisoners assessed, and that the overall targets for the number of prisoners commencing cognitive skills, sex offending and violence intervention programs were not met.

The commissioning process entailed major logistical challenges, with the deployment of approximately 400 staff and the movement of some 900 prisoners across the system. During this time, the pre-eminent consideration for CV was the safety, security and wellbeing of prisoners and staff, and assessment completions had to be a secondary focus. As well, program delivery during 2005-06 was disrupted, due to the cessation of program delivery at other prison sites and the commencement of program delivery at the new Marngoneet Correctional Centre.

The successful delivery of this commissioning process in 2006 has further supported the delivery of the RRF. In particular, and as highlighted by Audit, the opening of the Marngoneet Correctional Centre in 2006 introduced a new specialist focus for program delivery and added to the rehabilitation capacity of the prison system. The opening of the Marngoneet Correctional Centre is the major milestone in the implementation of the reducing re-offending reforms in prisons, and the centre provides a central focus for the delivery of the offending behaviour programs to male prisoners. The centre is now fully operational and will assure the prison system's capacity to provide targeted rehabilitation programs.

RESPONSE provided by the Secretary, Department of Justice - continued

*Audit also notes delays in the deployment of VISAT into prisons. The VISAT assessment tool has been developed as a part of the RRF. As noted by Audit, the VISAT has been deployed into Community Correctional Services, supported by the new E*Justice information management system. With the progressive roll-out of the E*Justice system to prisons, the VISAT will be deployed into the prison system within 12 months.*

In the interim, the existing risk assessment tool (the LSI-R:SV) will continue to be used, and (as noted by Audit) CV is already piloting the use of the VISAT in prisons with approximately 700 assessments completed to date. This pilot will assist in identifying the distribution and profile of the risk of re-offending and offending-related needs – and means that service planning and evaluation initiatives can proceed while waiting for the introduction of VISAT in the prison system.

Follow-up of our 2004 audit

4 Managing emergency demand in public hospitals

At a glance

Background

This follow-up audit examines the progress made in addressing the recommendations from our 2004 report, *Managing emergency demand in public hospitals*. In the 2004 audit, we concluded that while hospital and the Department of Human Services' (DHS') management of demand for emergency department care was improving patient access, challenges remained.

Key findings

- DHS and hospitals have implemented several initiatives to reduce demand for, and improve patient access to, emergency department services since our 2004 audit.
- The Emergency Access Reference Committee and the *Better faster emergency care* strategy have underpinned much of DHS' continuing work to address emergency demand since 2004.
- The time most hospitals spend on bypass and the time patients spend in emergency departments have both decreased. There has been a significant reduction in the number of patients staying longer than 24 hours in an emergency department.
- Not all hospitals have developed waiting room management procedures and the number of patients leaving without receiving treatment is increasing.
- Hospitals have made little progress in addressing controls over data quality.

Key recommendations

4.1 Hospitals should, as a priority, further develop waiting room procedures for patient re-triaging and management.

4.2 DHS and hospitals should continue to address our 2004 recommendations relating to security controls over emergency department data management systems, to ensure that actual performance is accurately recorded.

4.1 Introduction

In 2004, the Victorian Auditor-General's Office conducted an audit of *Managing emergency demand in public hospitals*. That audit focused on how presentations to emergency departments, and flows within and out of emergency departments, were managed by 4 of Melbourne's major metropolitan hospitals (The Alfred, Monash Medical Centre, Royal Melbourne Hospital, and the Western Hospital) and the Department of Human Services (DHS).

We concluded that action by hospitals and DHS to manage demand for emergency department care was improving patient access, but that challenges remained. We made 26 recommendations addressing 4 main areas:

- managing presentations to emergency departments
- managing patient flows within the emergency department
- managing patient movement out of the emergency department
- managing emergency department data and data quality.

Our follow-up audit examined progress by a selection of metropolitan hospitals and DHS in addressing the recommendations made in the 2004 audit. This involved document reviews, and visits to DHS and the 4 hospitals audited in 2004. We also reviewed documents from 3 hospitals not included in the original audit (Austin Hospital, Frankston Hospital, and Northern Hospital), to assess whether they had considered or acted upon our recommendations.

We updated key emergency department data for the 13 metropolitan public hospitals operating in 2004. (An additional hospital with an emergency department opened after our audit was conducted. We have not included that hospital in the updated data.) The data provides a broader picture of the trends in emergency department demand and access.

4.2 Overall conclusion and recommendations

DHS and hospitals have implemented several initiatives to reduce demand for, and improve patient access to, emergency department services since our 2004 audit. Key initiatives include:

- establishing an expert committee in 2005, to advise DHS on emergency access issues
- implementing a 5-year strategy in 2007, to guide future efforts to manage emergency demand and to improve access and quality of care.

Other initiatives have focused on:

- high-risk and high-needs patients
- patients whose care might be better provided in a non-emergency setting.

DHS is yet to assess how effective many of its initiatives have been. Some evaluations of specific initiatives have been completed. Others are in progress or are being planned. The evaluations will provide a clearer picture of progress.

The following improvements in emergency department access are evident:

- the time most hospitals spend on bypass has decreased
- the time patients spend in emergency departments has decreased, although some hospitals are not yet meeting performance benchmarks across the metropolitan health system.

Some areas require further improvement, with:

- the number of patients not waiting for treatment increasing significantly in the past 6 months at some hospitals, against a longer-term, system-wide trend downwards
- decreased performance by a number of hospitals across most triage categories.

DHS' *Better faster emergency care* strategy contains a range of further actions to improve emergency care and access. The challenge for DHS and metropolitan hospitals will be to follow through with planned and in-progress actions.

Recommendations

4.1 DHS should adopt the Australasian College of Emergency Medicine performance benchmarks for triage category 4 and 5, and publicly report on performance against them.

4.2 DHS should clarify in its public reporting of triage-to-treatment times that the data excludes those patients that were triaged but subsequently left the hospital without receiving treatment.

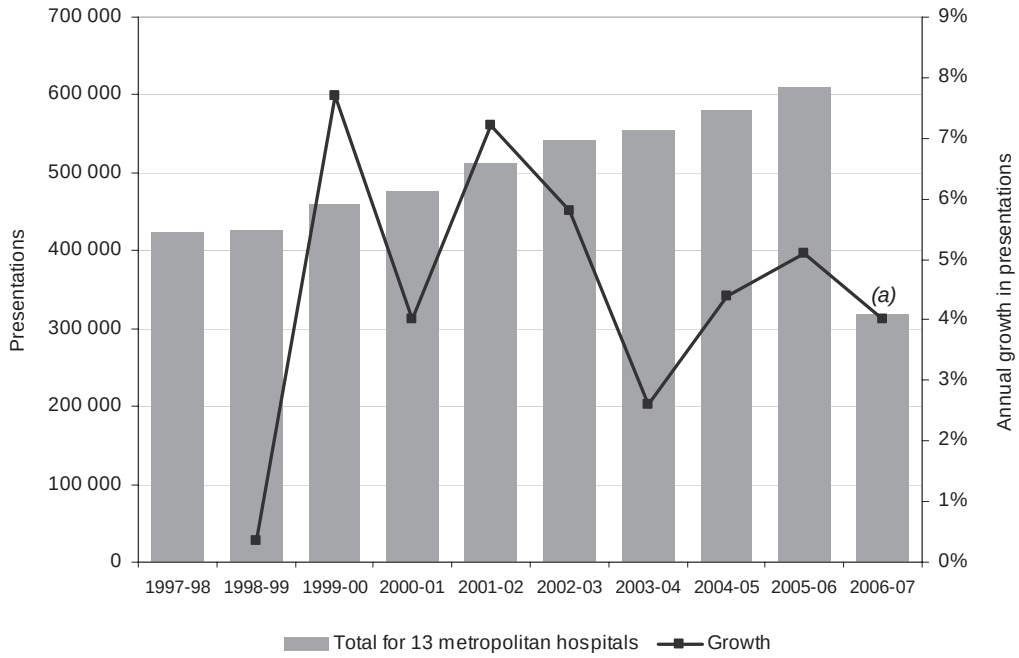
4.3 Hospitals should, as a priority, further develop waiting room procedures for patient re-triaging and management.

4.4 DHS and hospitals should continue to address our 2004 recommendations relating to security controls over emergency department data management systems, to ensure that actual performance is accurately recorded.

4.3 Managing emergency demand

Between 1997-98 and 2005-06, presentations to emergency departments in 13 major Victorian metropolitan public hospitals grew from around 425 000 to 610 000 (43.4 per cent). This includes an increase of 9.7 per cent since our 2004 audit.

Figure 4A
Presentations to 13 major metropolitan emergency departments



(a) Data for 2006-07 relates to the 6-month period from July 2006 to December 2006 only.
Source: Victorian Auditor-General's Office, from data supplied by DHS.

Figure 4A also shows that overall, the annual rate of growth in presentations to emergency departments has reduced since 2001-02 (when DHS implemented demand management strategies), although there was an upward trend during 2004-05 and 2005-06.

4.3.1 Key initiatives since our 2004 audit

Two initiatives have underpinned much of DHS' continuing work addressing emergency demand since 2004:

- DHS established the Emergency Access Reference Committee (EARC) in March 2005 to advise on priority issues relating to emergency department access for public hospital patients. Its 4 priorities are to:
  - identify strategies to improve equitable access to emergency services on the basis of need
  - implement the key recommendations from our 2004 audit report, *Managing emergency demand in public hospitals*
  - develop access improvement initiatives, including key performance indicators, benchmarks and initiatives to deal with specific issues affecting statewide emergency service performance
  - provide advice from issues arising at the Commonwealth level that affects access to emergency services.
- DHS published *Better faster emergency care*, its 5-year strategic policy to ensure that the health system meets the community's future emergency care needs, in early 2007. It identifies DHS' 4 aims for emergency care, the enablers to achieve these, and DHS' 10 priorities over the next 5 years. *Better faster emergency care* also details 52 key actions that DHS plans to take over the life of the strategy, including developing new service options; improving ambulance/emergency department coordination; promoting better systems for care; and evaluating initiatives.

4.4 Managing presentations to emergency departments

4.4.1 Hospital planning to manage demand

Patient flow modelling

In 2004, the 4 hospitals audited had a sound understanding of the need to manage access to emergency department services system-wide. We commented that they would benefit from the use of computer-based patient flow modelling tools, to further enhance emergency access.

We recommended that DHS lead the development of computer-based simulations for patient-flow modelling to assist hospitals with demand management planning.

Since our 2004 audit, DHS has considered a range of options for the development of computer-based patient-flow simulators, and is now trialling an electronic bed management system. The system aims to assist hospitals to better identify their capacity, and to use the information to improve emergency department flows.

DHS plans a 12-month trial of the system from March 2007, with an evaluation to follow. The evaluation will compare this system with 2 hospital-developed bed management systems, and recommend the most appropriate for Victorian hospitals.

Diverting presentations from the emergency department

During our 2004 audit, the 4 hospitals examined were implementing a range of diversionary programs to reduce the demand for emergency services. Each of the 4 hospitals had its own selection criteria, and intake and referral procedures for its program. We reported that this would present problems for hospitals if benchmarked across the system.

We recommended that DHS and hospitals should collaborate to develop common procedures and performance criteria for the diversionary programs.

Our follow-up audit found that in 2005, DHS released an independent evaluation of diversionary programs funded under the Hospital Admission Risk Program. It showed significant benefits in reducing demand for emergency department services.

DHS has since mainstreamed many of the programs as the Hospital Admission Risk Program-Chronic Disease Management service framework (HARP-CDM). DHS-developed guidelines provide direction for the implementation of HARP-CDM, and facilitate service provision during the transition phase. In line with our recommendation, the guidelines contain common procedures to ensure that diversionary programs are consistent and available across the service system. They also contain minimum requirements for hospitals when developing their own guidelines. DHS plans to release post-transition phase guidelines in 2007.

All hospitals examined during the follow-up are implementing HARP-CDM, with varying progress. DHS is developing a measure for program users to assess the impact of HARP-CDM on hospital utilisation. DHS anticipates that the measure will be available in 2007-08.

Primary care-type patients

In 2004, DHS estimated approximately 37 per cent of all patients attending an emergency department could have been treated by a general practitioner (GP). We found problems with DHS's data (the incorrect recording of some data at hospitals), and the way DHS defined a primary care-type patient. This raised doubts about the reliability of the figures that DHS reported. We highlighted international research showing that, depending on the definition used, primary care-type patients accounted for between 3 and 59 per cent of emergency department presentations in other jurisdictions.

We recommended that DHS should conduct further research on the issue of primary care-type patients, and their impact on demand for emergency department services.

Since our 2004 audit, DHS has undertaken a range of activities to provide better information on primary care-type patients, including:

- research to inform discussions about new service delivery models to meet the needs of these patients, and to reduce the demand on hospital emergency departments
- establishing the Emergency Access Reference Committee Primary Care Sub-committee to advise the EARC on matters relating to this group of patients.

DHS has also implemented initiatives to reduce the number of primary care-type patients attending emergency departments, including GP co-located after-hours clinics, and the Health Assist Line (Nurse-on-Call). Figures 4B and 4C describe these initiatives.

Figure 4B
General practitioner co-located after-hours clinics

GP co-located clinics provide a way to relieve pressure on emergency departments by diverting non-urgent patients (primary care-type patients) to a GP clinic co-located with the hospital, ideally near the emergency department. According to DHS, co-located clinics aim to provide "appropriate, accessible service for those patients who attend emergency departments but who do not need an emergency department level of care". Commonly, co-located clinics operate out-of-hours, and do not provide specialist medical services. Patients attending an emergency department are not compulsorily redirected to co-located clinics.

GP co-located clinics currently operate at Dandenong Hospital, Frankston Hospital, Northern Hospital and the Royal Children's Hospital. Each clinic operates differently, and has different sources of funding.

The effectiveness of these clinics in reducing demand on emergency departments is not clear. In recognition of this, DHS is conducting a review in early 2007 to:

- determine the impact of co-located GP clinics in reducing the demand for primary care-type services in hospital emergency departments
- assess the financial viability of the services and their financial impact on hospitals
- determine the future of this model of care in Victoria.

Source: Victorian Auditor-General's Office.

Figure 4C
Health Assist Line (Nurse-on-Call)

The Health Assist Line or "Nurse-on-Call" (NOC) started operating in Victoria in March 2006. It is a 24-hour, 7-day a week health call centre, staffed by registered nurses. Services include triage, health information, and directing callers to the most appropriate place of care (self-care, GP services, emergency departments, ambulance for urgent matters, and community-based health services).

According to DHS, NOC aims to "reduce telephone demand on public hospital emergency departments to respond to incoming calls", with secondary aims including providing alternative modes of patient triage, and increasing access by all Victorians to better advice and information in relation to health care options.

Data from 1 June 2006 to 31 August 2006 indicates that during the period:

- NOC received 90 740 calls, of which 66 026 (72.9 per cent) were for triage and 13 127 (14.5 per cent) were for a combination of general information and health education
- calls transferred from emergency departments declined from 5 917 (28 per cent) of all calls in June 2006 to 4 584 (12 per cent) of all calls in August 2006, suggesting that people are contacting NOC directly, rather than emergency departments.

Other data from June to August 2006 indicates that, if all callers followed the NOC advice, there would be a reduced number of calls to "000" and attendances to an emergency department. Data collected by NOC shows that for callers who had intended to call "000" or attend an emergency department, approximately half were advised by NOC to do so.

Source: Victorian Auditor-General's Office.

Frequent attenders

A small but significant group of people frequently attend emergency departments, and can have a disproportionate impact on attendances. In 2004, all 4 hospitals we examined were implementing programs to address this group of patients. Because each hospital allocates a unique unit record number for its patients, there was no way to monitor, across the health system, the impact of an individual's total number of attendances.

We recommended that DHS should pursue the implementation of a system-wide unique patient identifier, to help assess the impact of these patients on emergency departments.

Since our 2004 audit, DHS has engaged with both Standards Australia and the National E-Health Transition Authority (NEHTA), as part of an existing national agenda, to develop a unique patient identifier. NEHTA expects to commence implementing the Individual Healthcare Identifier in 2006-07, with completion expected by 2009.

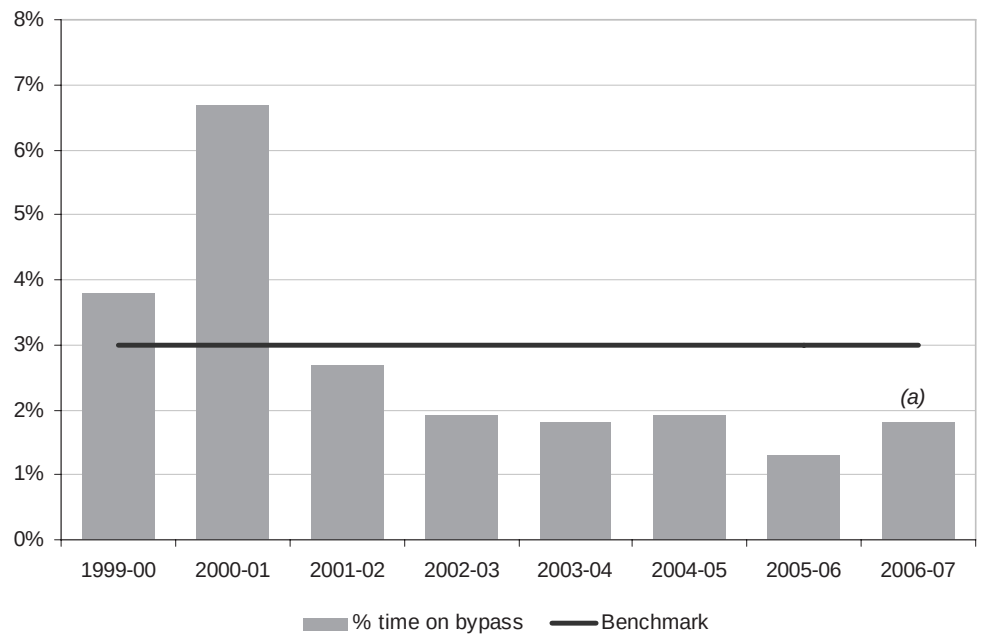
4.4.2 Managing ambulance presentations

Ambulance presentations account for 30 per cent of emergency department attendances. The management of ambulance presentations has important implications for hospital bypass, the distance an ambulance has to travel to reach an emergency department, and how quickly an ambulance can return to the road.

In 2004, we reported the total hours that hospitals were on bypass. Since our 2004 audit, DHS has changed the way it reports on hospital bypass, moving from counting the periods of bypass, to counting the percentage of time hospitals spend on bypass.

Figure 4D shows that following a peak in bypass in 2000-01, the 13 metropolitan hospitals have met the performance benchmark in each of the subsequent years, with the trend continuing in the first half of 2006-07.

Figure 4D
Hospital bypass



(a) Data for 2006-07 relates to the 6-month period from July 2006 to December 2006 only.
Source: Victorian Auditor-General's Office, from data supplied by DHS.

Hospital Early Warning System

The Hospital Early Warning System (HEWS) is designed to inform hospitals that their emergency departments are reaching capacity, so that early action can prevent periods of hospital bypass. In 2004, the 4 hospitals we examined saw HEWS as a useful tool to free-up beds, reduce access block and prevent hospital bypass. We also found that:

- some hospitals had difficulty identifying the trigger points for implementing a period of HEWS
- some hospital staff became "desensitised" to HEWS, and were less likely to help create capacity within the hospital.

We recommended that:

- DHS, hospitals and the Metropolitan Ambulance Service (MAS) should review the implementation of HEWS

- hospitals should develop more systematic methods of determining trigger points for HEWS and hospital bypass.

Since 2004, DHS, hospitals and MAS have reviewed HEWS and all parties agreed that it is an effective system to help hospitals manage demand. They also agreed that the use of HEWS should continue. In March 2006, DHS provided further advice to hospitals about how to determine HEWS triggers, and hospital and ambulance service roles and responsibilities during a HEWS episode.

All hospitals we examined in this audit had strengthened their HEWS processes by developing HEWS protocols. Two hospitals had not yet formalised their protocols. Consistent with DHS' HEWS advice, most used a combination of systematic and subjective assessment to determine HEWS triggers.

Performance monitoring for ambulance presentations

Ambulances sometimes experience delays at emergency departments either in off-loading patients or during patient handover. Prompt turnaround enables ambulances to respond more quickly to other emergencies.

In 2004, emergency departments and MAS had processes in place to resolve issues whenever ambulances experienced delays. However, emergency departments did not have means to track, investigate and monitor delays, or to identify how they could use their own procedures to reduce delays.

We recommended that DHS should work with hospitals and MAS to develop performance monitoring for ambulance presentations.

Since 2004, DHS, in consultation with MAS and the EARC Ambulance Interface Sub-committee, has developed draft guidelines for the reception of ambulances at emergency departments. The draft guidelines have been sent to hospitals for feedback, with implementation expected by June 2007.

DHS plans to assist health services to implement the guidelines. This may include an escalation process to assist in managing delays in reception of ambulance patients during periods of peak demand.

4.5 Managing patient flows within the emergency department

4.5.1 Waiting room management

In 2004, we found that while the 4 hospitals we examined managed the triage process well, their waiting room management needed improvement. None of the 4 hospitals had effective systems to monitor waiting room patients, which included changes in their medical condition and re-triaging after recommended waiting times had elapsed.

We recommended that hospitals should develop, document and implement procedures for monitoring and communicating with waiting room patients in the interval between triage and treatment, and re-triage patients when they passed the recommended waiting times.

Of the 7 hospitals examined in our follow-up audit, 3 had procedures that required triage nurses to re-triage waiting patients. The others had not yet developed procedures.

At the 4 hospitals we re-visited, the re-triaging of waiting room patients was limited. Each stated that while it aims to re-triage patients, this is unlikely when the emergency department is busy.

At most hospitals, triage nurses did not routinely provide waiting time information to patients presenting at the triage desk, or regular updates to waiting room patients.

DHS recently introduced 2 initiatives, as part of a broader communication strategy, to improve communication with waiting room patients:

- training workshops for frontline emergency department staff in metropolitan hospitals, to improve communication with patients, including understanding the patient experience. DHS completed the training in April 2007
- a *Welcome to the Emergency Department* brochure available for patients in the waiting room. The brochure provides patients with a brief description of what to expect when they attend the emergency department.

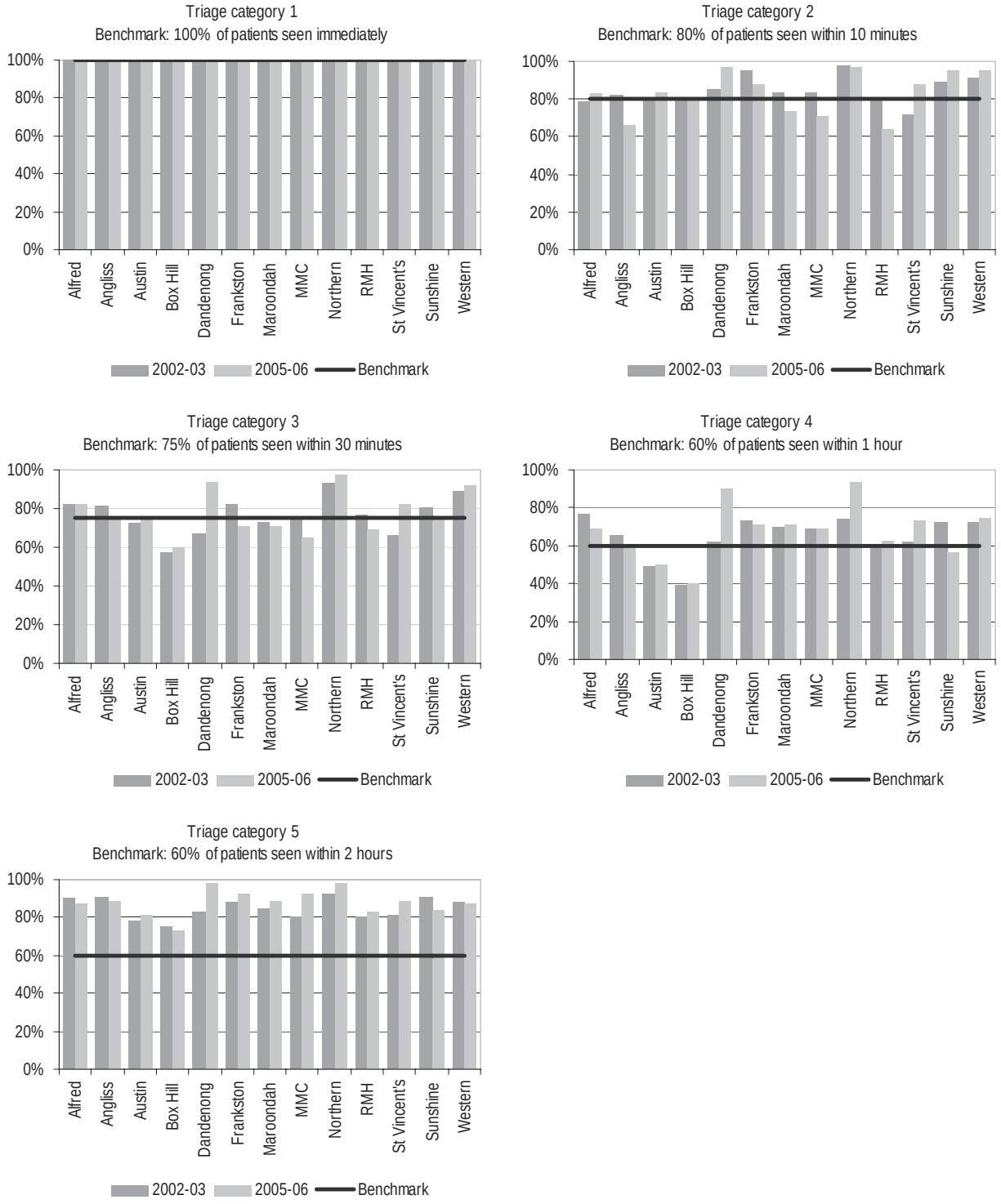
Waiting times for treatment

Long waits in emergency department waiting rooms increase both the time it takes to receive treatment, and the patient's overall length of stay.

DHS has adopted benchmarks for triage to treatment times for categories 1 to 3 from the Australian College of Emergency Medicine (ACEM), and has established its own benchmarks for categories 4 and 5.

In 2004, we reported on the performance of the 13 metropolitan public hospitals against the benchmarks for 2002-03. In this audit, we compared performance for 2002-03 with that for 2005-06. Figure 4E presents that comparison.

Figure 4E
Comparison of triage to treatment times, per triage category



Source: Victorian Auditor-General's Office, from data supplied by DHS.

The data for the 13 hospitals show that:

- metropolitan hospitals continue to meet the performance benchmark for category 1 patients
- for category 2: 4 hospitals that met the 2002-03 benchmark did not meet the benchmark in 2005-06, while 2 hospitals that did not previously meet the benchmark now do. Overall, 9 hospitals met the 2005-06 benchmark. Seven of the 13 showed improved performance
- for category 3: 3 hospitals that met the 2002-03 benchmark did not meet the benchmark in 2005-06. Three hospitals that did not previously meet the benchmark now do. Overall, 7 hospitals met the 2005-06 benchmark. Six of the 13 improved their performance
- for category 4: 2 hospitals that met the 2002-03 benchmark did not meet the benchmark in 2005-06. Two hospitals that significantly underperformed in 2002-03 performed marginally better in 2005-06, with performance still well under the benchmark. Overall, 9 hospitals met the 2005-06 benchmark. Nine of the 13 improved their performance. Performance decreased in 4 hospitals and was unchanged in one
- for category 5: all hospitals exceeded the benchmark, as they did in 2002-03. Overall, 8 hospitals improved their performance, while 5 had decreased performance.

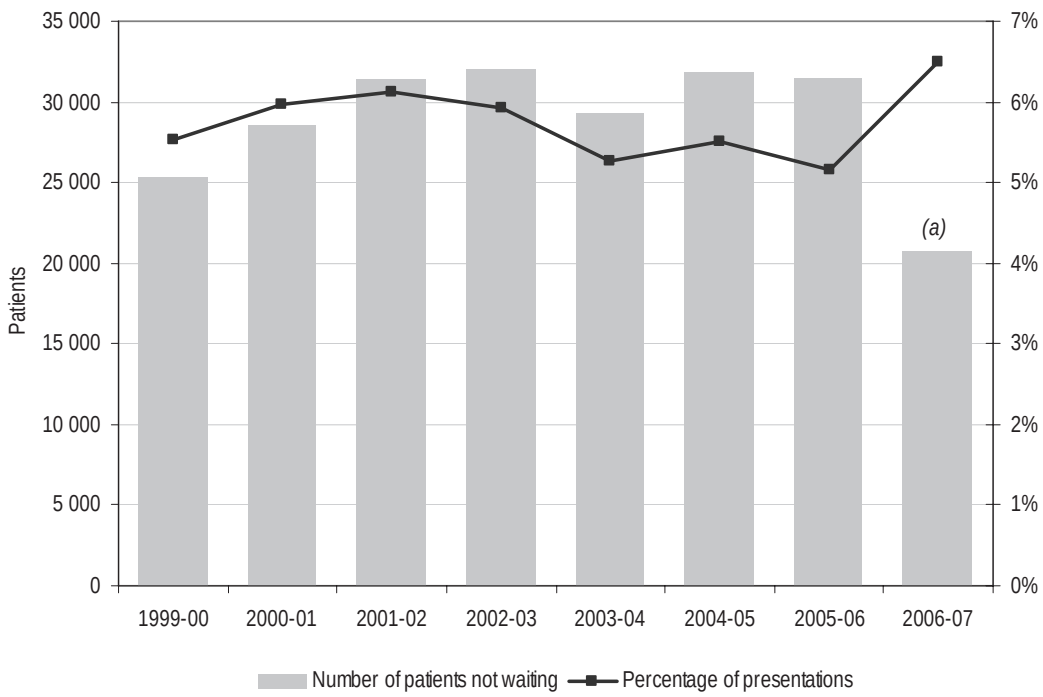
If, as it has for the other triage categories, DHS adopted the ACEM 70 per cent benchmark for categories 4 and 5, 5 hospitals would have met the ACEM 2005-06 benchmark for category 4 (compared with 9 hospitals that met the DHS benchmark). All 13 would have met the ACEM 2005-06 benchmark for category 5.

To establish hospital performance in triage to treatment times, DHS excludes patients who are triaged but do not wait for treatment (often due to prolonged waiting time). If these patients are included, the data shows a greater level of under-performance, particularly for triage categories 4 and 5. It is important that the exclusions are made clear to those analysing triage to treatment times data, as the triage to treatment times alone do not provide a complete picture of hospital performance.

Patients who do not wait

Figure 4F shows that from 2002-03 to 2005-06, the number of patients who did not wait for treatment at the 13 metropolitan hospitals reduced from 5.9 per cent of annual presentations to 5.2 per cent. However, in the first half of 2006-07, there has been a marked decrease in performance, with 6.5 per cent of metropolitan emergency department patients not waiting for treatment.

Figure 4F
Patients who do not wait for treatment at hospital



Note: The data for the periods 1999-00 to 2002-03 differ marginally from those reported in 2004. The 2004 data included an additional hospital. The main impact of excluding that hospital from the data is a marginal increase in the percentage of patients who do not wait as a proportion of emergency department presentations.
(a): Data for 2006-07 relates to the 6-month period from July 2006 to December 2006 only.
Source: Victorian Auditor-General's Office, from data supplied by DHS.

In 2004, we reported on the rates of did not wait (DNW) patients for each of the 13 metropolitan hospitals. In this audit, as shown in Figure 4G, we found that the rate of DNW patients reduced across metropolitan hospitals overall, and in 6 of the individual hospitals between 2002-03 and 2005-06. In some cases the reductions were substantial.

Figure 4G also shows that for the first half of 2006-07, there were increases in the rate of patients leaving before treatment in 10 hospitals. In some cases, the increase is significant.

Figure 4G
Patients who do not wait for treatment at hospital, by hospital
(per cent of hospital presentations)

Hospital	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Sunshine Hospital	3.1	2.8	7.4	5.4	5.7	6.7	7.2	9.6
Alfred Hospital	7.1	5.8	6.6	6.8	8.4	8.0	7.7	8.9
Northern Hospital	7.3	10.1	8.9	7.5	2.3	3.2	3.2	8.1
Austin Hospital	5.9	7.5	8.0	6.0	5.4	5.6	6.4	7.4
Frankston Hospital	4.5	4.3	3.6	4.9	5.4	5.9	5.0	7.1
Box Hill Hospital	6.0	6.1	7.1	6.0	6.3	6.3	6.8	6.6
Maroondah Hospital	5.3	6.3	5.6	4.0	4.6	4.2	3.5	6.0
Western Hospital	3.8	3.6	2.9	5.1	3.5	3.6	4.6	5.1
Angliss Hospital	5.5	4.4	3.5	3.1	3.9	4.8	3.6	5.0
Monash Medical Centre	6.8	8.2	8.7	10.1	8.3	8.1	5.5	4.9
Royal Melbourne Hospital	1.1	1.8	3.0	3.7	3.0	2.8	3.9	4.7
Dandenong Hospital	8.1	8.3	7.5	7.9	6.8	8.0	5.6	4.5
St Vincent's Hospital	6.9	7.2	4.9	4.5	4.8	3.6	4.0	4.5

Note: Data for 2006-07 relates to the period from July 2006 to December 2006 only.
Source: Victorian Auditor-General's Office, from data supplied by DHS.

In 2004, we recommended that DHS and hospitals should develop protocols to identify and follow-up with high-risk patients that do not wait.

Since 2004, DHS has commissioned a literature review to investigate why patients do not wait, and associated adverse health outcomes, and to identify interventions to reduce their numbers. DHS is scoping further research to support the development of evidence-based guidelines and has established an emergency department clinical network to assist in the development of relevant clinical guidelines.

4.5.2 Fast-track services

Fast-track services aim to reduce the waiting time between triage and treatment for less acute patients, reducing congestion and patient frustration over waiting times.

Our 2004 audit found a variety of fast-track services in place at the 4 hospitals we examined. The programs had similar aims but different structures and processes. Generally, these services were aimed at quickly treating patients with minor medical conditions, reducing the time they waited and their length-of-stay. Only one hospital had conducted an evaluation of its fast-track services.

We recommended that hospitals should conduct evaluations of fast-track programs to determine their impact.

In our follow-up audit, we found that while all 7 hospitals were operating fast-track services, the nature of the service model had changed. Three hospitals had fast-track services to treat minor medical problems for less acute patients. Four had adopted a new model of care called “streaming”. Generally, this model “streams” those patients the hospital expects to admit, and those it does not. The second stream acts as a fast-track service.

Our follow-up audit also found that only one of the 7 hospitals had conducted an evaluation of its fast-track service. None of the hospitals that had moved to “streaming” had conducted an evaluation of their original fast-track services before moving to the new model. However, each had evaluated its “streaming” model.

In 2006, DHS commenced a review of fast-track services to assist in the development of a framework to implement best practice fast-track models in Victorian hospitals. The evaluation includes a statewide survey to map fast-track services currently provided by hospitals. Preliminary survey results indicate that Victorian emergency departments operate a broad range of fast-track services. DHS expects to complete its review by June 2007.

4.6 Managing patient flows out of the emergency department

4.6.1 Long-stay patients

Emergency department length-of-stay performance measures

In 2004, DHS measured hospital performance for emergency department long-stay patients by calculating the percentage of patients admitted within 12 hours. This target was higher than that of other jurisdictions and inconsistent with emerging evidence about optimal length-of-stay for emergency department patients.

When calculating performance, DHS included only those patients admitted to an inpatient bed. All patients who waited in the emergency department longer than 12 hours but were discharged home, transferred to another hospital, or died in the emergency department, were excluded from the data. As a result, the public data provided a different picture of how many people waited in the emergency department longer than the benchmark. We found that excluded patients represented just under half of all patients waiting longer than 12 hours in an emergency department.

We recommended that DHS should review its long-stay performance measure, and develop new measures to take account of all emergency department patients, and their average length-of-stay.

Since 2004, DHS developed a new suite of emergency department performance measures. The new measures provide system-wide benchmarks, replacing the previous hospital-specific benchmarks negotiated between DHS and individual hospitals. The combination of the 8-hour, 4-hour and 24-hour performance measures now captures all emergency department patients, regardless of their final destination.

Figure 4H highlights the measures in place before 2005-06 and those used since 2005-06.

Figure 4H
Emergency department performance measures

Before 2005-06		From 2005-06	
Measure	**Benchmark**	**Measure**	**Benchmark (per cent)**
Percentage of operating time on hospital bypass	Hospital-specific	Percentage of operating time on hospital bypass	3
Percentage of admissions from the emergency department within 12 hours	Hospital-specific	Percentage of admissions from the emergency department within 12 hours	90
		Percentage of emergency patients requiring admission who are admitted to an inpatient bed within 8 hours	80
		Percentage of non-admitted emergency department patients with a length-of-stay (LOS) in the emergency department of less than 4 hours	80
		Total number of patients with a LOS in the emergency department greater then 24 hours	0
		Percentage of category 1 patients seen immediately	100

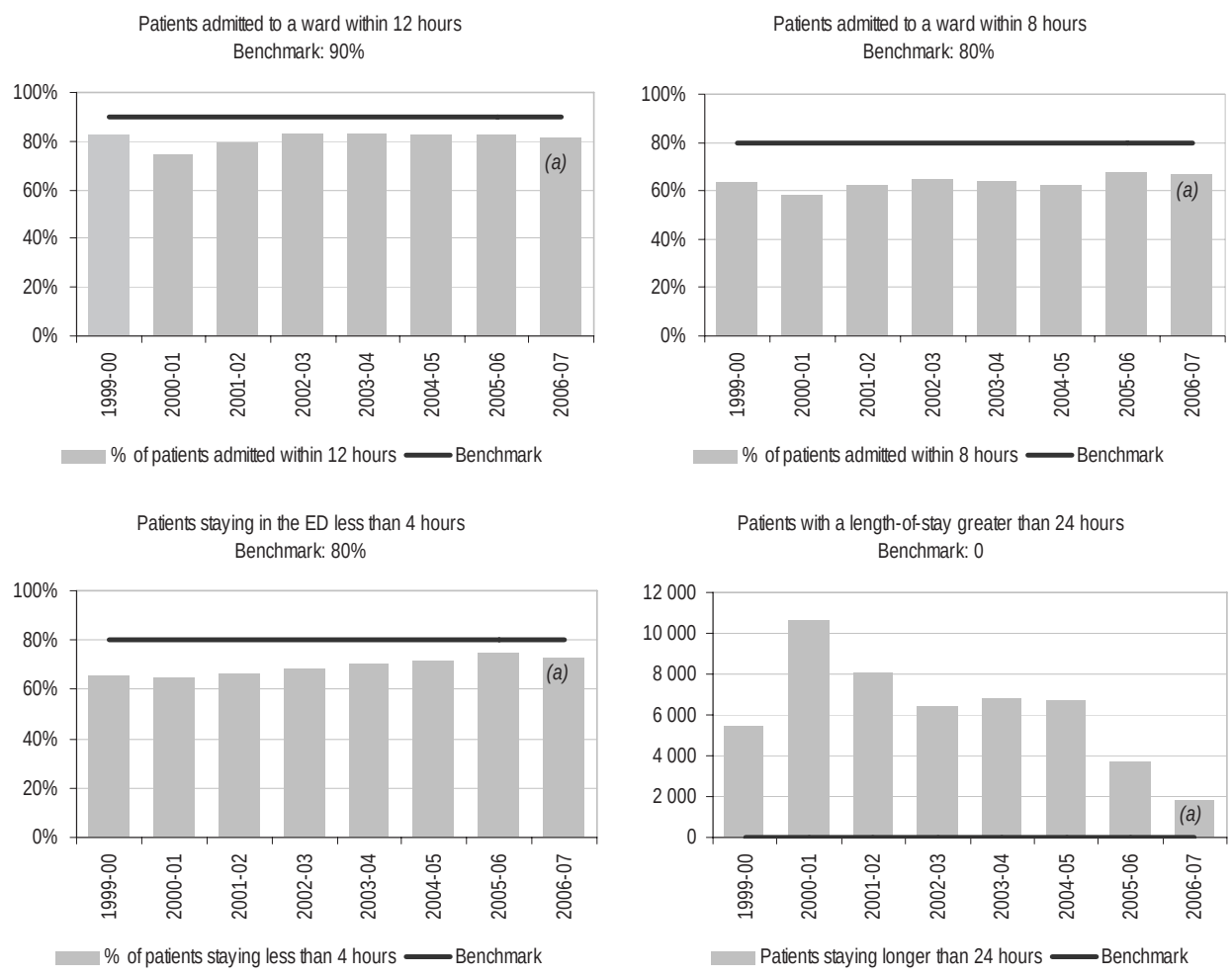
Source: Victorian Auditor-General's Office, from data supplied by DHS.

In our follow-up audit, we analysed data for the 7 years to 2005-06 against the related emergency department length-of-stay performance measures. Figure 4I demonstrates that for the 13 metropolitan hospitals:

- the benchmark for patients admitted to an inpatient bed within 12 hours has not been met in any year. Performance has averaged 81 per cent in a climate of growth in emergency department presentations
- the benchmark for patients admitted to an inpatient bed within 8 hours has not been met in any year, with varied performance across the 7 years

- the benchmark for patients staying in the emergency department for 4 hours or less has not been met in any year, although consistent improvement has occurred over the 7 years
- the benchmark for patients staying longer than 24 hours in the emergency department has not been met in any year. However, after peaking in 2000-01, there has been significant improvement towards meeting the benchmark.

Figure 4I
Emergency department length-of-stay performance



(a) Data for 2006-07 relates to the period from July 2006 to December 2006 only.
Note: Benchmarks for 3 of the performance measures have only been in place since 2005-06. However, our analysis assumes use of benchmarks across the 7 years.
Source: Victorian Auditor-General's Office, from data supplied by DHS.

Long-stay psychiatric patients

In 2004, there were long delays in admitting psychiatric patients from emergency departments, either because they could not access specialist beds or because of delays in accessing external specialists. We found that emergency departments were not adequately staffed or designed for the ongoing management of psychiatric patients.

We recommended that DHS should sponsor further work, including a needs analysis into the issue of psychiatric presentations and long-stays in emergency departments.

Our follow-up audit found that in 2005, DHS published research into mental health presentations to emergency departments. DHS has also implemented a range of initiatives targeted at mental health emergency department presentations. These include:

- developing a draft framework to improve the care of mental health patients in emergency departments
- establishing a Mental Health EARC Sub-committee to provide advice on access issues for mental health patients presenting at emergency departments
- providing additional recurrent funding to increase the availability of specialist mental health clinicians
- implementing a new mental health triage tool to improve mental health triage practices in emergency departments
- developing an emergency department long-stayer report with a focus on mental health patients staying longer than 24 hours.

4.6.2 Preventing access block

The 2004 audit identified that inpatient beds were not always available for emergency department patients when needed. The inability to move patients out sometimes caused the emergency department to become “blocked”. This impacted on hospital bypass, created emergency department congestion and resulted in long waits within the emergency department.

We recommended that hospitals should have clear admission and discharge policies, specifying priorities for admission and escalation steps to take at times of bed shortage. We also recommended that DHS should take the lead in developing capacity management systems.

DHS’ trial of an electronic bed management tool, mentioned earlier in this part of the report, addresses our concerns about capacity management within hospitals.

We did not examine the progress made in developing admission and discharge policies in the follow-up audit. We intend to cover these matters in a future performance audit of inpatient flow and bed management.

4.7 Managing emergency department data and data quality

4.7.1 Completeness and accuracy of VEMD data

DHS uses data that hospitals input to the Victorian Minimum Emergency Dataset (VEMD) to allocate hospital funding, assess individual hospital performance, and to report publicly on the performance of the health system.

In 2004, while DHS' data validation processes were effective, data in patient files at hospitals, and VEMD data, varied. We recommended that DHS initiate quality audits of hospital emergency department data.

Our follow-up audit found that DHS recently commissioned a pilot audit of VEMD data, to assess its robustness and the quality of the information in patient files. The pilot audit aimed to identify the most appropriate method for future audits, to ensure DHS is able to better validate the VEMD data. DHS received a final report in May 2007.

To assess the quality of hospital data, we conducted a comparison of key data contained in emergency department patient files at 4 hospitals we examined, with VEMD data. This was similar to the approach we took in 2004.

We examined 35 patient files at each of the 4 hospitals, recording the triage time, time first seen by a doctor or nurse, and the emergency department discharge time for the month of October 2006.

We found that at 3 of the 4 hospitals, only triage time was routinely entered in the patient file. Treatment time and discharge time were often not recorded. We examined the relevant fields in the VEMD data for those patient files and found that they were always complete. This is likely to be due to staff entering the information directly into the database. The absence of data in the patient files reduces the ability to validate the VEMD data.

4.7.2 Emergency department management systems

In 2004, we found weaknesses in data security controls and reported that emergency department management systems had few restrictions to prevent users from changing treatment dates and times. We also identified the ability to duplicate data entry and the lack of any disaster recovery plans for emergency department management systems. We made several recommendations for improvement.

During our follow-up audit, we found improvements in addressing controls over data duplication and developing disaster recovery plans.

We also found that hospitals have made little progress in addressing controls over data quality. Staff at each of the 4 hospitals we examined are able to retrospectively change treatment dates and times. Although each hospital had the ability to create an audit log of changes to these fields, this was seldom done. If a hospital did create an audit log, each of the 4 hospitals advised that it did not review the log.

Other areas that require further action include:

- development of security policies for emergency department management systems, including limiting generic user accounts and passwords
- establishing processes to require formal approvals for system upgrades, including the development of hardware replacement programs.

RESPONSE provided by the Secretary, Department of Human Services

DHS welcomes the follow-up audit report. The conclusion that improvements in emergency department access are evident is pleasing. DHS has undertaken an ambitious work agenda since 2004 to build on the Hospital Demand Management Strategy and ensure that the health system best meets the emergency care needs of the Victorian community.

The audit report's recommendations and identified areas for improvement are consistent with the work being undertaken to implement the department's policy framework "Better faster emergency care" (2007), which outlines actions to be undertaken over the next 3 to 5 years to further improve emergency care and access in Victoria's public hospitals. DHS will continue its commitment to improving and monitoring health service performance.

The conclusion that evaluation of initiatives undertaken since the 2004 will provide a clearer picture of progress is sound. A number of formal reviews of specific initiatives have been undertaken by DHS, or are currently in progress. In addition to reviews of specific initiatives, DHS will continue to monitor progress in implementing "Better faster emergency care" (2007) in partnership with health services.

Recommendation 4.1

Accepted in principle. DHS will consider this recommendation in future development of the department's public reporting of health service performance.

Recommendation 4.2

Accepted in principle. Data definitions for information included in "Your Hospitals" are provided publicly in the "Your Hospitals" Technical Appendix, which is published on DHS' website at <www.health.vic.gov.au/yourhospitals/download>.

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

This includes the statement that times to treatment for all triage categories "excludes those who left at their own risk without treatment". For future Your Hospitals reports, the department will emphasise the importance of utilising the Technical Appendix when interpreting data.

Recommendation 4.3

Accepted in principle. DHS acknowledges the importance of managing patients in the emergency department waiting room and has implemented a suite of initiatives to improve the patient and carer experience as part of the Improving the patient experience program. DHS is currently working with health services to scope strategies to support ongoing improvements in managing patients in the waiting room and clinical care for emergency patients.

Recommendation 4.4

Accepted in principle. DHS acknowledges the importance of ensuring high quality data is available to accurately monitor emergency department performance. Following the pilot audit of the Victorian Emergency Minimum Dataset which was completed in early 2007, DHS is currently scoping approaches to ensure greater validity and quality of emergency data.

RESPONSE provided by the Acting Chief Executive Officer, Southern Health

Monash Medical Centre Clayton does not at present possess a specific written policy regarding the re-triaging of patients. However, it is a clear responsibility of the triage nurse and the nurse in charge of the emergency department to regularly review patients who are in the waiting room, and prioritise on that basis. If waiting times are to be long, the Associate Nurse Unit Manager, triage nurse or Access Manager will inform patients of this, and seek to address the needs of all patients in the waiting room. All patients in the waiting room are in view.

Monash Medical Centre Clayton performance against triage targets: Monash Medical Centre has a well-developed plan to improve performance against this target. In the past, we have under-reported performance in this area. The recent initiative on "streaming" of emergency department patients (into "likely admission" or "likely discharge") has significantly reduced the overall time that all patients spend in the emergency department (from arrival to admission or discharge). This is reflected in a significant reduction in the number of patients who "did not wait" for treatment, as well as our high level of performance against the Emergency Access key performance indicators (KPIs).

RESPONSE provided by the Acting Chief Executive Officer, Southern Health - continued

Monash Medical Centre Clayton has achieved maximum bonus points for all KPIs for the past 3 quarters, with the exception of the 8-hour wait (where we are currently at 75 percent, equivalent to 2 bonus points). This has been achieved in the context of significant growth in total attendances to the emergency department, including an increase in the level of ambulance attendances (which are by nature more complex and more likely to require admission to the hospital).

The emergency departments at the other Southern Health acute sites, Dandenong and Casey Hospitals, have consistently achieved maximum bonus points against all Emergency Access KPIs, again within the context of increased presentations.

Access to sub-acute care should form the focus for future review and strategies to improve patient flow through the acute hospital system.

Follow-up of our 2004 audit

5 Maintaining public housing stock

At a glance

Background

This follow-up audit examines the progress made in addressing the recommendations from our 2004 report, *Maintaining public housing stock*. In the 2004 audit, we concluded that the Office of Housing (OoH) was making progress in improving public housing maintenance. We also concluded that further improvement was required across a range of areas, particularly the management of maintenance contractors.

Key findings

- The OoH has made progress in addressing our recommendations, although scope for further improvement remains.
- Timely delivery of responsive maintenance is variable across contract areas, although there was an improvement in average performance in the latter part of the 2005-07 contract period. Service delivery in some contract areas is well below performance benchmarks.
- The OoH has not enforced liquidated damages clauses in its contract, despite persistent overdue maintenance.
- The Housing Integrated Information Program, due for completion in 2004, has been partially implemented. It is now due for completion in late 2008.

Key recommendations

5.1 The OoH should consistently assess contractor performance against performance benchmarks.

5.2 The OoH should implement a process for applying liquidated damages for overdue maintenance.

5.1 Introduction

In 2004, the Victorian Auditor-General's Office conducted an audit of *Maintaining public housing stock*. The audit focused on how the Office of Housing (OoH) managed "responsive" and "vacated" maintenance[1] for its properties.

We concluded that while the OoH was making progress in some areas of public housing maintenance, much work was still required to improve the management of maintenance contractors, maintenance backlog and property condition data. We made 25 recommendations addressing:

- the OoH's maintenance strategy
- the provision of maintenance services
- informing and consulting with tenants.

Our follow-up audit examined progress by the OoH in addressing the recommendations from the 2004 report. We reviewed documents and re-examined some elements examined in the 2004 audit central to determining how well the recommendations were implemented.

We also:

- examined the implementation of the Housing integrated information Program (HiiP), a management information system being developing at the time of our 2004 audit
- updated key maintenance data to provide a broader picture on what progress has been made in maintaining public housing.

5.2 Overall conclusion and recommendations

The OoH has made progress in implementing the recommendations from the 2004 audit. It has improved the way it assesses the condition of its properties. There has been a marginal decline in the condition of its properties since 2002-03, although the OoH has advised of a range of strategies to improve the condition of its properties.

The OoH has improved its engagement and management of maintenance contractors, including improved compliance monitoring and the introduction of performance indicators to assess contractor performance. There remains, however, scope for further improvement in managing maintenance contractors by:

- consistently using the OoH's benchmarks when assessing maintenance contractor performance
- applying remedies available under the contract for overdue maintenance.

The OoH has also improved the way it informs and consults with its tenants, by implementing a range of initiatives to enhance the relationship.

[1] Responsive maintenance is the day-to-day response to tenant-reported health, safety, security, breakdown and loss of amenity. Vacated maintenance is carried out when a tenant leaves a property, and before a new tenant moves in.

The Housing integrated information Program (HiiP) project is a large, complex ICT project, full implementation of which is currently behind schedule. The delays in implementing the project have impeded the achievement of benefits, with the contractor's inability to develop and implement the system within the established timeframe paramount.

While response times for managing responsive maintenance requests have improved, most of the project's intended benefits are yet to be realised. This is attributable to project governance and project, contract and risk management shortcomings.

The OoH has proposed strategies to achieve the project's successful completion. Provided the OoH implements those strategies as planned, it should complete the HiiP project in late 2008.

Recommendations

5.1 The OoH should consistently assess contractor performance against performance benchmarks.

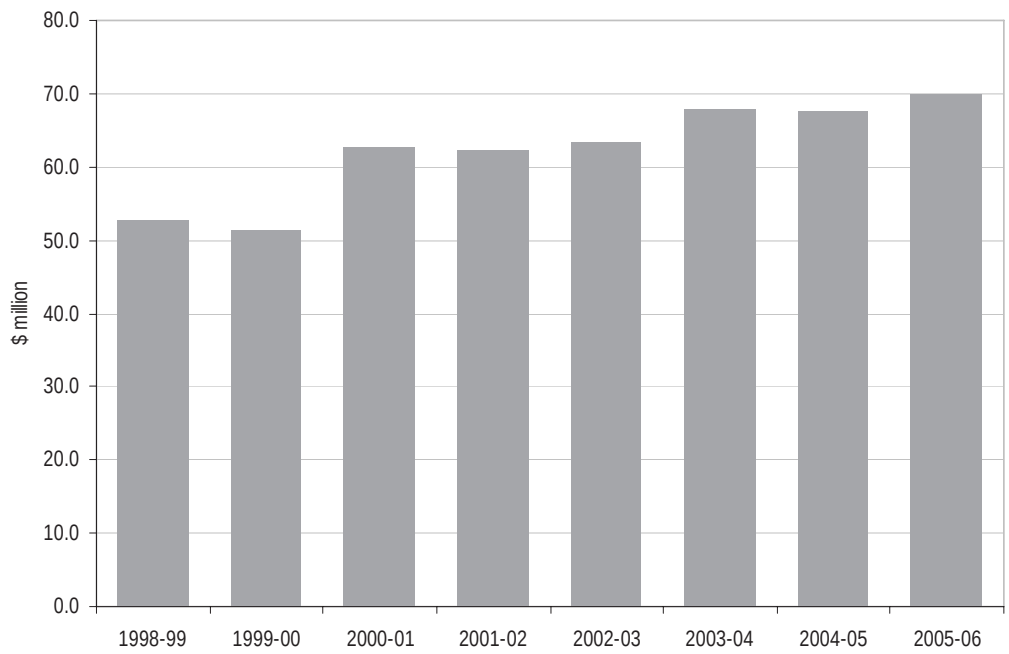
5.2 The OoH should implement a process for applying liquidated damages for overdue maintenance.

5.3 Maintaining public housing

The OoH is responsible for building and maintaining public housing. At 30 June 2006, the OoH managed and maintained 65 244 public housing properties, an increase of 259 properties since 2002-03.

Figure 5A shows that between 1998-99 and 2005-06, public housing maintenance expenditure grew from $52.6 million to $70 million, i.e. by 33.1 per cent.

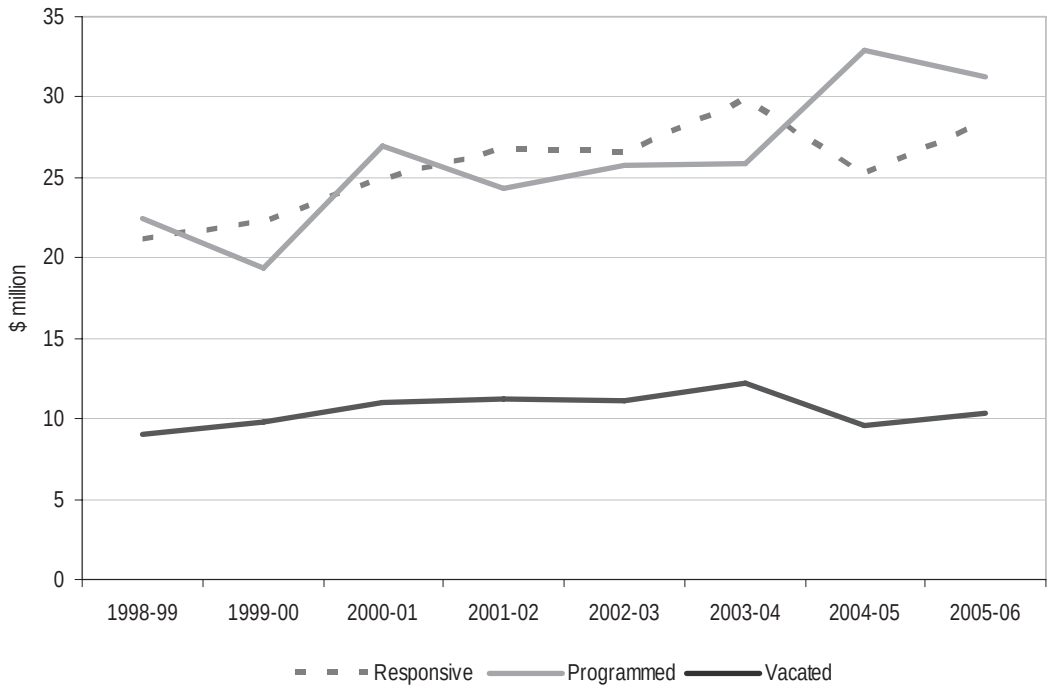
Figure 5A
Public housing maintenance expenditure



Note: The data exclude maintenance expenditure for approximately 8 500 community, Aboriginal and transitional housing. These properties were excluded from our 2004 review.
Source: Victorian Auditor-General's Office, from data supplied by the OoH.

Figure 5B shows that between 1998-99 and 2003-04, the expenditure was mainly for responsive maintenance. The increase in programmed maintenance expenditure in 2004-05 was to address properties in poor condition.

Figure 5B
Maintenance expenditure by type



Note: The data exclude maintenance expenditure for community, Aboriginal and transitional housing. These properties were excluded from our 2004 review.
Source: Victorian Auditor-General's Office, from data supplied by the OoH.

5.3.1 Key initiatives since our 2004 audit

In 2002, the OoH advised that it was implementing a new information management system, HiiP, to replace its Integrated System for Information Processing (ISIP). A contractor was appointed in October 2002 to develop and implement HiiP. The OoH advised us during our 2004 audit that full implementation was expected in 2004.

HiiP is to provide a system for the OoH to manage a range of business processes, including:

- planning
- tenancy assistance and management
- property management
- financial management.

HiiP is expected to improve management of responsive maintenance and physical assets.

In June 2006, the OoH settled the contract with its HiiP contractor. Extensive delays in system implementation had been experienced. The first of 5 stages was partially implemented in March 2006. The remaining 4 stages are still to be fully developed or are not yet implemented. We discuss the HiiP project, including its current status, realised benefits and issues affecting its implementation, later in this part of the report.

5.4 The Office of Housing's maintenance strategy

5.4.1 Property condition

Property condition data

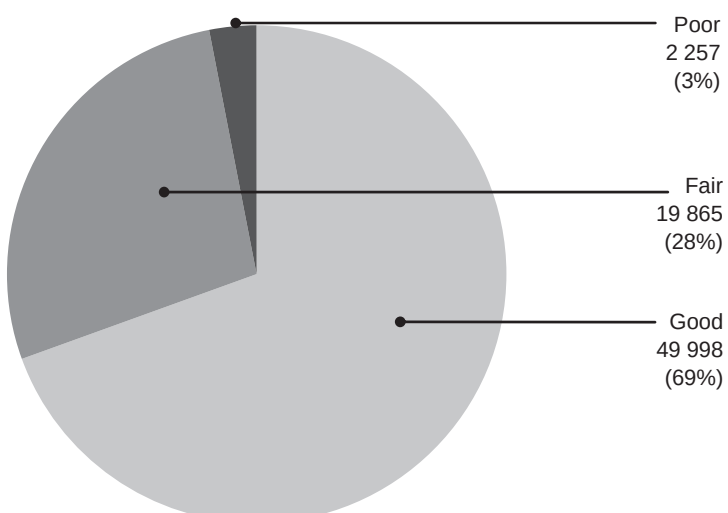
In 2004, we found that the OoH was unable to accurately calculate the cost of bringing its properties up to the required condition because its property condition data was unreliable. Causes of unreliable data included inaccurate cost estimates and the limited functionality of ISIP. The OoH was relying on the introduction of HiiP to improve the reliability of the data.

We also found that field services officers were not meeting their target of assessing 12 530 properties each year, achieving about 76 per cent of the target. We recommended that the OoH meet its target of assessing all properties with 5 years.

Our follow-up audit found that the OoH is close to meeting its assessment targets. During 2005-06, field services officers achieved 96.5 per cent of the target of 15 925 inspections. The OoH advised that from 2006-07, it will phase in 3-yearly assessments.

Figure 5C shows that at 30 June 2006, the majority (69 per cent) of inspected OoH properties were rated as "good", 28 per cent were rated as "fair", and 3 per cent rated as "poor". Compared with data at 30 June 2003, the percentage of "good" properties has decreased by 3 per cent, and the percentage of "fair" properties has increased by 3 per cent. The percentage of properties rated as "poor" has remained the same. The data indicates that the condition of properties is not improving.

Figure 5C
Condition of public housing stock, at 30 June 2006



Note: A “good” property needs maintenance expenditure of less than $5 000; a “fair” property needs between $5 000 and $20 000; a “poor” property needs more than $20 000.

Source: Victorian Auditor-General's Office, from data supplied by the OoH.

Life cycle costing

A life cycle costing method accounts for the full cost of an asset over its life, i.e. the cost of acquiring, controlling, operating and disposing of an asset. In 2004, we found that the OoH did not use this method of costing, thereby reducing its ability to calculate the current and future costs of maintaining its properties.

The OoH advised that it planned to implement life cycle costing. We recommended that it follow through with this plan.

In our follow-up audit, we found that the OoH was using life cycle costing to estimate asset costs. The OoH is planning further enhancements to life cycle costing as part of HiiP. This enhanced functionality has not yet been implemented.

5.4.2 Backlog maintenance

Backlog maintenance is maintenance that the OoH has previously identified as necessary, but which has not been carried out. The OoH identifies backlog maintenance through its property condition assessments.

In 2004, we found that the OoH's backlog maintenance had increased from $101 million in 1999-00 to $177 million in 2002-03 (75.2 per cent growth), with average annual growth of 20.7 per cent. We also found that the OoH did not have a strategy to deal with backlog maintenance, and recommended that it develop a strategy to reduce the levels.

Following our 2004 audit, $15 million was allocated to improve properties rated as "poor". The OoH's strategy was to either upgrade the properties or dispose of them. The OoH advised that this was a targeted strategy following our report, and was completed at the end of 2005-06.

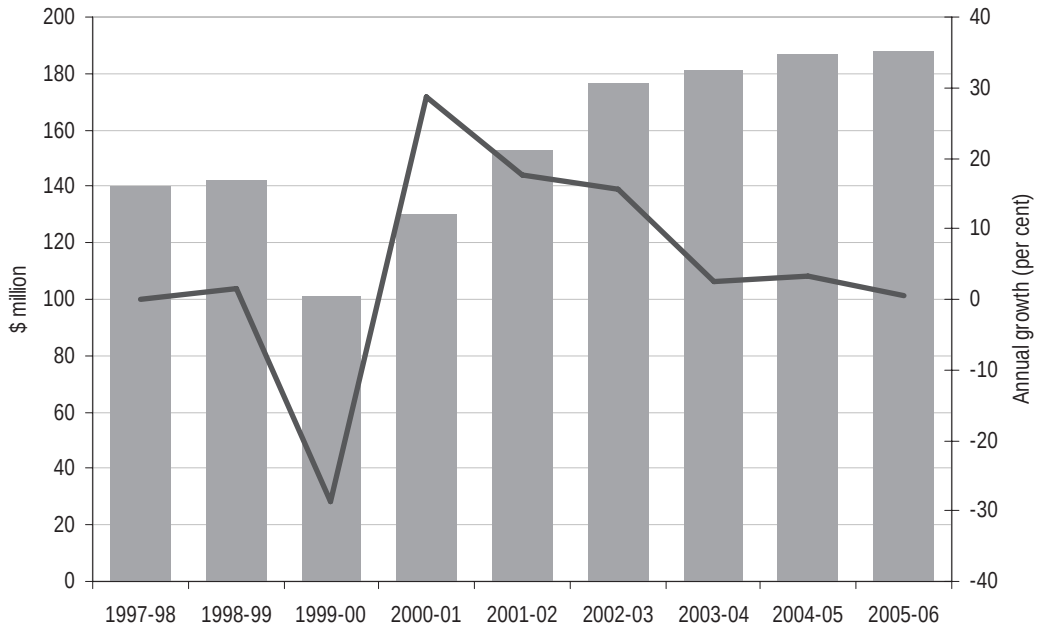
In our follow-up audit, we found that while the OoH does not have a funded backlog maintenance strategy, it continues to address backlog maintenance through the development of annual regional stock plans and regional forums to prioritise maintenance requirements. The OoH advised that a range of other initiatives contribute to the backlog maintenance strategy, including:

- the high-rise upgrade program
- the "walk-up" strategy
- major housing redevelopments.

Decisions on whether to maintain properties or dispose of them will continue as a key feature of the backlog maintenance strategy.

Figure 5D shows that while the level of backlog maintenance has continued to increase, the rate of annual growth is much less than between 1999-00 and 2002-03.

Figure 5D
Backlog maintenance level, and rate of annual growth



Source: Victorian Auditor-General's Office, from data supplied by the OoH.

5.5 Managing maintenance requests

As a landlord, the OoH should keep its properties in good repair. It maintains its properties through:

- a program of planned maintenance of tenanted properties
- responding to requests from tenants who report faults or the need for repairs (responsive maintenance)
- maintaining properties as they become vacant (vacated maintenance).

In 2004, we found that the establishment of the Maintenance Call Centre (MCC) had reduced the workload of housing services officers (previously responsible for managing maintenance requests) and improved the management of maintenance requests.

We recommended that the OoH:

- evaluate the effectiveness of the MCC
- increase the percentage of customer satisfaction surveys to 5 per cent of all work orders raised, to provide more representative feedback from tenants
- conduct customer satisfaction surveys of tenants from culturally and linguistically diverse communities.

Our follow-up audit found that in 2005, the OoH evaluated the MCC. The evaluation measured performance against the MCC's 4 objectives:

- improving tenant customer service, with a positive impact on the sense of connection between citizens and government
- developing an e-business-enabled facility to service OoH customers in a more accessible, cost-effective and targeted manner
- promote regional growth
- efficiently implement the call centre.

The findings were generally positive, noting good performance in most areas of the MCC's operation. Thirty-nine recommendations for enhancements to the MCC were made. They addressed a range of issues, including:

- improving assistance to culturally and linguistically diverse tenants
- reducing call centre costs
- improving the quality of performance measurement.

The OoH has considered and acted on many of these recommendations.

We also found that the OoH increased the sample size for its customer satisfaction surveys and included culturally and linguistically diverse tenants. Figure 5E shows the overall growth in customer satisfaction surveys since 2003-04.

Figure 5E
Customer satisfaction surveys conducted

	2003-04	2004-05	2005-06
Surveys conducted	5 345	10 364	7 469
Work orders raised	192 644	223 625	243 382
Surveys conducted as a proportion of work orders raised (per cent)	2.8	4.6	3.1

Source: Victorian Auditor-General's Office, from data supplied by the OoH.

The OoH advised that the decline in 2005-06 was due to the partial implementation of HiiP stage one, and the reallocation of staff time to learn and use the new system.

5.6 Providing maintenance services

Maintenance of the OoH's properties is conducted by contractors. The OoH has 22 contracts for responsive and vacated maintenance across the state, which apply to specified geographic areas. Eleven head contractors hold the contracts, and with the OoH's approval, can sub-contract work. The head contractors are responsible for all performance under the contracts.

To meet its maintenance obligations the OoH needs:

- contractors with the ability to provide the services required
- effective contract management to ensure contractors meet established quality and timeliness standards.

In 2004, we found that the procurement process was generally well managed. We also found that the OoH's management of maintenance contractors was not robust, and that there was persistent overdue maintenance. The OoH had not formally assessed the risks involved in either the procurement of contractors or contract management.

We recommended that the OoH develop risk management plans for both stages to ensure that it was aware of, and mitigated, risks.

Since our 2004 audit, the OoH has developed and implemented risk management plans for the procurement process and contract management. Both were used for the 2005-07 contract period, and the OoH plans to use these for future tendering and contracts.

5.6.1 Engaging maintenance contractors

In our follow-up audit, we assessed how the OoH managed the engagement of head contractors for its 2005-07 responsive and vacated maintenance contracts. Figure 5F summarises our findings.

Figure 5F
Procurement, 2005-07, responsive and vacated maintenance contracts

Criteria	Assessment	Audit comment
Procurement requirements are clearly specified in tender documentation.	●	Tender documentation clearly specified the procurement requirements.
The procurement approach is consistent with government requirements.	●	The procurement approach was consistent with the *Project Development and Construction Management* Act, Ministerial Directions and guidance provided by the Building Commission.
The tender evaluation is transparent and fair.	●	Standard evaluation criteria were applied in assessing all tenderers. The criteria, process and scoring method were provided to all tenderers in the request for tender documentation. An evaluation report was produced.
Probity assurance is obtained before contracts are awarded.	●	A probity advisor was engaged for the 2005-07 tendering process, and confirmed that the process met probity standards.
Contractor performance is monitored and evaluated before re-engagement, to inform appropriate decision-making.	◐	For existing contractors who elected to re-tender, past performance was evaluated during re-tendering. For contractor's offered contract extensions, performance was not evaluated. A process has been implemented to do this for the 2007-09 contracts.

Legend

● Criteria met
◐ Criteria partially met
○ Criteria not met

Source: Victorian Auditor-General's Office.

In all aspects, except for monitoring and evaluation of contractor performance before re-engagement, practices observed were considered satisfactory.

5.6.2 Managing responsive and vacated maintenance contractors

In our follow-up audit, we also assessed the OoH's contract management for its 2005-07 responsive and vacated maintenance contracts, against key contract management criteria. Figure 5G summarises our findings.

Figure 5G
Contract management, 2005-07, responsive and vacated maintenance

Criteria	Assessment	Audit comment
Contract risks are identified and managed.	●	A contract risk management plan was developed and implemented for the 2005-07 contracts.
Contract management staff have appropriate skills.	●	The contract manager has appropriate skills.
Contractor performance is monitored.	●	Arrangements are in place to monitor contractor performance, including quarterly meetings, key performance indicators and compliance audits.
Information systems provide timely data to support contract management.	◐	Information systems provide data on contractor performance and compliance with the contract. There is room for improvement, with insufficient data on overdue maintenance and liquidated damages for vacant properties.
Contractors deliver services in accordance with the contract, and this is verified by the contract manager.	◐	Services are not always delivered in accordance with the contract. This is verified. However, remedies available in the contract are not used.
Arrangements are in place to manage contractor payments, and recover amounts overcharged.	●	Processes are in place for contractor payments, including assessment of invoices against work orders, and mechanisms for recovering identified overcharging.

Legend

● Criteria met
◐ Criteria partially met
○ Criteria not met

Source: Victorian Auditor-General's Office.

Practices were satisfactory for 4 of the 6 aspects assessed. There was room for improvement in the provision of data to assist monitoring of contractor performance, and ensuring contractors delivered services in accordance with contracts.

5.6.3 Monitoring contractor performance

Compliance audits

The OoH uses compliance audits to monitor the performance of head contractors, and their compliance with contracts. The audits take place after the completion of maintenance works, with the contractor's compliance plan forming the basis of the audit.

In 2004, we found that non-conformance with contracts, overcharging and defective works had increased between 1998-99 and 2002-03. Based on a sample, we estimated the annual value of overcharging and the cost of rectifying defective works to be $2.7 million and $3 million, respectively.

We recommended that the OoH:

- increase the number of audits it carries out to encourage contractors to comply with contract conditions
- require all head contractors to increase the percentage of quality inspections they conduct of theirs, and their sub-contractors' work.

Since our 2004 audit, the OoH's Compliance Branch has produced more compliance plans, and audited a greater percentage of schedule contract orders (work orders).

The OoH has also improved its planning for compliance audits by developing a method that provides for the audit of all head contractors during the financial year.

The benchmark for quality inspections that head contractors undertake has increased from 5 per cent of all work orders raised each month, to 10 per cent. Scrutiny by the Compliance Branch of the head contractor inspections was enhanced recently by introducing re-inspection of a proportion of the head contractors' quality inspections.

Using key performance indicators to assess contractor performance

In 2004, the OoH assessed head contractor performance quarterly, but the assessments were not based on objective criteria.

We recommended the OoH develop and use objective criteria for quarterly assessments of head contractors.

In our follow-up audit, we found that for the 2005-07 maintenance contracts, the OoH assessed the performance of head contractors against the 5 key performance indicators (KPIs) shown in Figure 5H.

Figure 5H
KPIs for head contractor performance, 2005-07 contracts

KPI	Description	Benchmark
KPI 1	Compliance with contractual reporting requirements	Statutory declaration
KPI 2	Timeliness (number of overdue work orders completed within time frame):	
	• urgent works	100 per cent
	• priority works	90 per cent
	• normal works	80 per cent
KPI 3	Quality of work (Compliance Branch report)	97.5 per cent *(a)*
KPI 4	Quarterly regional and maintenance call centre contractor performance report (performance ranking)	Satisfactory
KPI 5	Customer satisfaction ratings, contractor performance report ranking	75 per cent

(a) Penalties apply for this KPI if performance falls below 95 per cent.

Source: Victorian Auditor-General's Office.

The OoH recently identified limitations with the KPIs. It plans to establish 9 KPIs for its 2007-09 contracts to better measure performance of its head contractors.

During our follow-up audit, we reviewed data on the timeliness of the provision of responsive maintenance services from July 2005 to March 2007.

Figure 5I shows the performance for the 22 contract areas between July 2005 and March 2007. A high score indicates that the contractor has completed most or all of its maintenance on time. A negative score indicates that a significant number of maintenance work orders were not completed on time.

From September 2006, the OoH changed the way it assesses head contractor performance for delivering responsive maintenance. This change resulted from the partial implementation of HiiP stage one. To ensure the data in Figure 5I were comparable, the OoH re-calculated the data for the last 3 quarters (i.e. September 2006 to March 2007 quarters) to match, as closely as possible, the basis on which data were prepared pre-HiiP. All data in Figure 5I has, therefore, been calculated using the old business process. While the data is comparable, under the new business process for assessing performance, we found that performance for the last 3 quarters is less favourable, for most of the contract areas, than is shown in Figure 5I.

The data show that in March 2007:

- 2 of the 22 contract areas met the performance benchmark for urgent responsive maintenance (i.e. completed within 24 hours). Most contract areas showed improved performance since December 2006. Some contract areas significantly underperformed. (Under the new assessment process, no contract areas would have met the benchmark in March 2007.)

- 18 of the 22 contract areas met the performance benchmark for priority responsive maintenance (i.e. completed within 7 days). Most contract areas showed improved performance since December 2006. There was significant underperformance in some contract areas, including Box Hill/Ringwood with 31.3 per cent, against the benchmark of 90 per cent. (Under the new assessment process, only 6 contract areas would have met the benchmark in March 2007. Box Hill/Ringwood would have achieved -16 per cent.)
- 18 of the 22 contract areas met the performance benchmark for normal responsive maintenance (i.e. completed within 14 days). Most contract areas showed improved performance since December 2006. There was significant underperformance in some contracts, including a score of 3.3 per cent for Box Hill/Ringwood, and 44.3 per cent for Ballarat and Morwell against a benchmark of 80 per cent. (Under the new assessment process, 14 contract areas would have met the benchmark, with Box Hill/Ringwood achieving -45.5 per cent, Ballarat 11.3 per cent and Morwell 11.8 per cent.)

The OoH subsequently advised that the contracts for the Box Hill/Ringwood and Frankston/Cheltenham areas have not been extended.

The data also show that average performance declined during early to mid-2006 in all contract areas, before improving in September 2006. Average performance in March 2007 was below the benchmarks in 2 of the 3 maintenance priority categories.

The OoH's performance measure is based on the date the work order was issued. The OoH is planning to measure head contractor performance for overdue maintenance based on the actual completion date. This will require a new business process and reporting.

Figure 5l
Timeliness in delivering maintenance services, September 2005 to March 2007, by contract area (per cent)

Contract area	Urgent maintenance							Priority maintenance							Normal maintenance						
	Sep 2005	Dec 2005	Mar 2006	Jun 2006	Sep 2006	Dec 2006	Mar 2007	Sep 2005	Dec 2005	Mar 2006	Jun 2006	Sep 2006	Dec 2006	Mar 2007	Sep 2005	Dec 2005	Mar 2006	Jun 2006	Sep 2006	Dec 2006	Mar 2007
	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score
Benalla/ Wangaratta	93.0	97.3	93.5	82.3	90.8	99.8	97.5	92.3	92.8	90.8	83.8	90.5	92.8	95.8	88.8	93.0	87.0	82.5	83.5	92.3	94.3
Ballarat	96.8	95.3	91.8	77.0	81.0	81.3	80.0	92.0	93.5	74.0	57.0	55.0	63.3	52.5	88.5	91.0	57.0	43.5	47.5	44.8	44.3
Bendigo	100.0	97.3	87.3	86.3	92.3	99.0	100.0	99.8	91.0	69.5	85.0	88.5	88.3	93.5	100.0	83.5	64.0	78.8	89.0	82.3	90.3
Box Hill/ Ringwood	88.8	96.3	75.3	11.8	15.8	65.5	84.0	88.3	93.3	52.5	14.0	5.3	31.8	31.3	91.3	96.3	42.8	-10.0	-16.0	-9.5	3.3
Broad-meadows	98.0	99.0	94.8	91.0	97.3	96.8	98.0	97.0	99.0	89.8	87.5	95.0	95.5	96.5	96.0	99.0	90.5	88.8	96.8	95.5	96.5
Dandenong	100.0	100.0	97.0	91.8	96.3	87.8	94.3	100.0	100.0	93.5	90.3	93.0	88.8	92.3	100.0	100.0	91.5	87.0	93.8	81.8	94.3
Frankston/ Cheltenham	97.8	99.0	87.0	61.8	70.8	90.8	94.5	96.3	96.8	69.8	58.0	52.8	74.0	82.8	96.0	96.3	55.0	47.0	52.8	65.3	86.0
Geelong	99.3	99.5	97.5	93.3	94.0	98.5	87.8	98.8	98.5	96.8	91.0	96.8	98.0	95.0	98.0	98.0	83.0	71.8	86.5	92.0	89.8
Heidelberg/ Reservoir	100.0	100.0	95.5	90.0	95.8	94.8	97.3	98.3	99.8	92.8	84.5	95.8	94.8	95.0	97.5	97.8	87.3	85.3	94.3	90.5	96.0
Horsham	94.5	100.0	96.8	98.3	95.3	97.8	99.3	94.0	96.8	95.0	98.3	96.0	94.3	98.5	94.0	97.3	89.0	92.5	91.0	92.0	96.8
Metro East	98.8	98.0	90.5	95.3	98.8	98.0	99.0	98.0	98.8	88.8	95.3	99.3	99.3	98.8	98.3	80.5	50.5	96.3	98.3	98.8	98.3
Metro North	99.8	99.8	95.8	92.5	97.3	97.3	98.8	98.8	99.3	94.3	86.5	97.5	95.8	97.8	99.8	93.8	82.0	93.3	97.5	97.5	98.8
Metro South	99.5	96.8	89.3	85.3	93.5	94.3	99.5	99.8	96.5	95.5	92.3	96.3	94.5	98.3	99.0	94.0	91.0	91.8	93.3	88.0	98.3
Metro West	100.0	99.0	96.3	98.0	100.0	99.5	99.3	99.0	99.0	96.0	98.5	98.3	98.8	95.5	100.0	94.5	86.0	98.8	99.8	98.5	97.0
Mildura	93.0	96.3	97.0	92.0	94.5	96.5	99.8	91.5	90.8	89.0	81.0	87.3	95.3	94.8	91.5	87.5	87.3	78.0	78.5	93.3	90.5
Morwell	99.3	100.0	91.5	75.8	83.5	86.0	89.8	94.5	96.0	81.3	60.5	56.0	52.8	75.5	95.3	91.3	71.3	54.0	44.8	15.0	44.3
Sale/ Bairnsdale	99.0	100.0	98.5	89.5	82.0	95.3	97.8	99.0	99.8	95.5	90.5	86.3	91.3	94.5	99.3	99.8	95.3	84.8	85.0	86.5	87.8
Shepparton/ Seymour	98.3	97.0	95.8	81.3	82.5	99.0	99.8	95.5	95.5	93.0	79.0	78.5	97.3	98.3	96.0	96.3	91.0	55.3	68.8	92.5	92.5
Sunshine	99.0	99.3	97.0	98.8	100.0	99.5	97.8	99.3	98.8	91.8	98.3	99.3	97.8	92.0	98.8	96.5	83.8	97.5	99.3	98.3	89.8
Swan Hill/ Echuca	99.0	100.0	99.0	99.3	98.0	99.5	100.0	99.3	98.8	98.0	98.5	97.3	97.5	100.0	99.5	99.3	97.8	96.3	95.8	98.3	98.8
Warrnambool	99.5	99.0	97.8	93.5	89.5	88.3	88.5	96.0	95.3	89.5	90.3	82.5	83.8	90.3	89.8	92.5	81.5	82.0	72.3	69.8	79.8
Wodonga	94.8	98.5	94.5	82.5	72.3	97.8	94.8	87.5	93.8	86.8	79.3	64.0	81.3	90.5	84.5	91.0	80.8	69.3	64.0	78.0	91.8
Average	**97.6**	**98.5**	**93.6**	**84.9**	**87.3**	**93.8**	**95.3**	**96.1**	**96.5**	**87.5**	**81.8**	**82.3**	**86.7**	**89.1**	**95.5**	**94.0**	**79.3**	**75.7**	**78.0**	**79.2**	**84.5**
Benchmark	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**90**	**90**	**90**	**90**	**90**	**90**	**90**	**80**	**80**	**80**	**80**	**80**	**80**	**80**

Note: Data on the head contractor component of vacated property turn-around is not available. While the OoH collates data on the total time it takes to prepare a property from one tenancy to another, the data include both maintenance services and internal OoH processes. This is not an accurate measure of head contractor performance and so has been excluded from analysis.

Source: Victorian Auditor-General's Office, from data supplied by the OoH.

In 2004, we found that the OoH did not always use its performance benchmarks, specified in contracts with head contractors, when it monitored and assessed contractor performance.

During our follow-up audit, we examined the head contractor quarterly reports and found examples where the OoH had not appropriately assessed head contractor performance against some benchmarks:

- for KPI 2 (maintenance timeliness), there were examples where the OoH had assessed head contractors as meeting benchmarks when the scores indicated they had not. This was particularly evident where head contractors had not met the benchmark for urgent work orders (100 per cent completed in 24 hours)
- for KPI 3 (quality of work), only one of the 22 contracts met or exceeded the contract compliance benchmark of 97.5 per cent. However, the OoH rated 19 contracts as having met the benchmark. Only those contracts that scored below 95 per cent were assessed as not meeting the KPI.

The responsive and vacated maintenance contract requires head contractors to achieve a contract compliance score of 97.5 per cent, and to use their best endeavours to ensure their performance does not fall below this benchmark. The contract compliance score measures the number of non-conformances, and the value of overcharges and defective works. Failure to achieve a score of 95 per cent is a trigger-point for financial penalties under the contract. In practice, the OoH assesses performance against a benchmark of 95 per cent. There is no incentive in the contract for head contractors to achieve the required performance benchmark (97.5 per cent). It is important that the OoH assesses performance against benchmarks in a manner consistent with the contract provisions and in compliance with OoH policy.

5.6.4 Managing contractor performance

In 2004, we found that the OoH maintenance contract provided for the application of liquidated damages in the event that agreed timelines were not met by contractors. This was the main tool the OoH had to ensure head contractors completed timely maintenance.

The OoH collated data on the number of times its regions had applied liquidated damages for overdue vacated maintenance. However, the data did not indicate whether liquidated damages had been applied in all eligible cases. We also found that:

- the OoH had not consistently applied liquidated damages and did not have a clear process for doing so
- the contract required the OoH to apply liquidated damages in all cases where maintenance was not completed within the required time, regardless of the reasons for not achieving the standard. (The law of contract provides that a liquidated damages clause must be a remedy for damages, not a penalty.)

We recommended that the OoH:

- redraft its contract to better reflect the intent to exercise liquidated damages where appropriate, consistent with good practice
- enforce the conditions of its contracts to ensure that all contractors perform to the required standards.

During our follow-up audit, we found that in 2005 the OoH amended the liquidated damages clause in its maintenance contract, to give more discretion on whether to apply the remedy. At the same time, the OoH changed the value of the remedy from $20 per work order per day, to a one-off amount of $50 per work order to ensure that it was not punitive.

Our follow-up audit also revealed little progress in applying liquidated damages. We found that:

- formal procedures are in place to apply liquidated damages for overdue maintenance identified in compliance plans, and for vacated maintenance. However, the OoH no longer receives data on liquidated damages applied for overdue vacated maintenance, and could not provide assurance to us that the procedures have been followed
- the OoH has an informal process only for applying liquidated damages for overdue responsive maintenance. Overdue responsive maintenance represents the majority of all overdue maintenance
- the informal process for overdue responsive maintenance provides for remedies to be applied if quarterly head contractor meetings identify consistent and sustained overdue maintenance. However, liquidated damages were not applied during either the 2003-05 or 2005-07 contract periods. During those periods, there was persistent overdue responsive maintenance.

Figure 5J outlines OoH's approach to applying liquidated damages for overdue maintenance since our 2004 audit.

Figure 5J
Applying liquidated damages for overdue maintenance

2003-05 contract period

The 2003-05 contract provided for the application of liquidated damages of $20 per work order, per day, for overdue responsive maintenance. The contract stated that this remedy was a genuine pre-estimate of the loss and damage the Principal would suffer from overdue maintenance. The contract was provided to prospective tenderers during the tender process.

The OoH subsequently determined the remedy to be punitive. For example, a head contractor could be charged $400 for being 20 days late in installing a $25 piece of equipment. The OoH considered that the remedy would '*have been punitive to contractors and would have resulted in a poor response to tenders, complex and expensive administration, and … would have been factored into the tendered price*'.

The OoH decided not to apply liquidated damages for the contract period, but continued to score overdue maintenance identified in its compliance plans.

2005-07 contract period

The OoH advised that since the start of the current contract period (July 2005), it has not applied liquidated damages to head contractors. In August 2005, a retrospective decision was made not to apply liquidated damages for overdue maintenance identified in head contractor compliance plans, during the 3 months from July to September 2005. A further decision was made not to score overdue maintenance identified in compliance plans during the period.

The OoH's decisions were made due to:

- changes to the contract in response to issues raised in the Victorian Auditor-General's Office 2004 audit and a 2004 OoH maintenance review
- the introduction of new head contractors who would need time to transition into the contract. However, of the 11 head contractors operating under the 2005-07 contract, we found that only 2 were new.

After the completion of the 3-month "grace" period, the OoH continued the practice of not applying liquidated damages or scoring overdue maintenance. We saw no evidence of an authorisation to continue this practice.

In March 2006, a decision was made to retrospectively extend the "grace" period to June 2006. The advice cited the previous reasons, as well as the impending implementation of HiiP and subsequent transition period. The practice of not applying liquidated damages for late works and not scoring overdue maintenance on compliance plans continued until January 2007.

The OoH advised that the decision not to apply liquidated damages was inclusive of all instances where there was overdue maintenance, and not just those identified in compliance plans. This advice is not supported by the available evidence, and in the absence of this evidence, we saw no clear rationale for the practice of a universal waiver.

The OoH's Compliance Branch was authorised to recommence applying liquidated damages and scoring for overdue maintenance from 1 January 2007.

Source: Victorian Auditor-General's Office.

At 28 February 2007, there were 5 503 overdue work orders for responsive maintenance. Approximately 2 300 overdue works relate to one head contractor. Throughout the 2005-07 contract period, the OoH has not applied liquidated damages for any of the overdue work orders.

Head contractor compensation

We found during our follow-up audit that the OoH compensated the head contractors for additional costs incurred due to difficulties caused by the implementation of the HiiP responsive repairs module. Head contractors experienced slow processing of jobs, delayed payment, increased staff costs and increasing overdrafts. At March 2007, 10 of the 11 head contractors had been compensated approximately $520 000. This was over and above the OoH's decision not to apply liquidated damages for late maintenance during the period. Negotiations are continuing with the remaining head contractor.

5.7 Informing and consulting with tenants

In 2004, we found that the OoH could improve its communication with tenants to ensure that they received feedback on systemic issues affecting their tenancies and on the adequacy of tenant-focused publications.

We made a range of recommendations to improve the way the OoH informed and consulted with tenants, including the development of a communications strategy, and informing tenants of the OoH's complaints mechanism.

The OoH has developed and implemented a range of initiatives to address issues with informing and consulting with tenants. These include:

- a communication strategy
- a complaints management strategy
- regional tenant forums
- bi-annual meetings between the OoH and tenant group peak bodies, tenant groups and regional tenant forum representatives.

5.8 The Housing integrated information Program

5.8.1 Background

The OoH uses ISIP to manage client, property, financial and lending information. In 1999, the OoH identified a range of functional and technical limitations with ISIP that meant that it was no longer viable, functionally and financially, to continue using the system.

The OoH considered 4 options for the replacement of ISIP, and chose to replace the system with a combination of an "off-the-shelf" and custom build product, which became known as the Housing integrated information Program (HiiP). In 1999, its estimated cost was $83 million.

HiiP was expected to deliver the following 11 business benefits across the OoH (some of which impact on the maintenance of its public housing properties):

- realisation of OoH strategic expectations
- reduced administrative burden for staff

- providing staff with greater support for performing their duties
- improved decision-making
- improved asset planning and utilisation
- the ability to change the system to meet new policy initiatives
- improved focus on delivering client assistance
- improved control of maintenance programs/work
- creating successful tenancies and communities
- links with other government services
- re-engineered business processes supported by technology to achieve efficiency gains.

The OoH was to implement HiiP in 5 stages over 2 years. Figure 5K highlights those stages and the original implementation milestones.

Figure 5K
HiiP modules and implementation milestones

Stage	Description	Milestone
Stage 1: - Responsive repairs	Management of complete OoH property repair cycle, beginning with core functionality for tenant's maintenance requests through to the contractor invoicing for works completed.	October 2003
Stage 2A: - Project and contracts management	Management of projects and contracts for administering the public housing stock. This module provides best practice project management through a template driven project and contract framework.	March 2004
- Fixed assets	Monitoring the value of OoH assets.	
Stage 2B: - Asset planning	Providing tools to assist the OoH to strategically plan and manage the OoH assets.	March 2004
- PCM compliance	Management of programmed works compliance.	
Stage 3: - Rents and estates	Management and facilitation of all aspects of rental rebates, tenancy management, arrears management, appeal management, legal action, parking rental, dispute management, termination of agreement and vacated accounts.	August 2004
Stage 4: - Needs (allocations and vacants)	Management of housing applications, waiting lists and public housing allocations.	August 2004

Source: Victorian Auditor-General's Office.

5.8.2 Status of HiiP

During this audit, we found that stage one of HiiP has been partially implemented. While most planned business processes were implemented, compliance monitoring was not included in the current release. Implementation of stage one started in March 2006 and was scheduled for completion in March 2007. During that period, significant remedial work was required to ensure that the system met user and business needs.

HiiP timelines

To date, the remainder of stage one and stages 2 to 4 of HiiP have yet to be completed. As mentioned earlier in this part of the report, the OoH settled the contract with its HiiP contractor in June 2006, after experiencing extensive delays in system implementation. Implementation of the final stages of HiiP will not occur until the OoH appoints new contractors. The OoH expects to commence a new tender process by May 2007, and expects to fully implement HiiP by December 2008.

Benefits realised to date

The partial implementation of the responsive repairs module of stage one has enabled the OoH to improve its control of maintenance programs and work, through reporting and trend analysis on service provider outcomes (e.g. services delivered on time, on budget, and to agreed quality). The OoH advised it has also been able to improve delivery of client assistance, with a reduced turn around time from lodgement to completion of a tenant's request for maintenance.

The module enables OoH staff to electronically register maintenance, to instruct head contractors to commence works, make payments to head contractors and maintain "schedule of rates" information. Once fully implemented, stage one will enable the OoH to automate the management of contractor compliance, including the ability to generate compliance plans (i.e. what the OoH plans to audit), resolve non-conformances, and evaluate contractor performance. Until that occurs, the OoH continues to use ISIP and manual processes to undertake these activities. The continued implementation of the HiiP system should enable the OoH to realise the 9 other business benefits.

HiiP costs

Figure 5L presents the HiiP budget position at 31 December 2006. It includes the proceeds from the agreement negotiated between the OoH and the HiiP contractor following settlement of the contract. The agreement required the contractor to pay $26 million to the OoH comprising:

- a refund of $10 million for payments already made by the OoH to the contractor (excluding payments for maintenance and support already provided)
- a conditional $16 million compensation payment for further development and replacement of the HiiP system. The agreement requires the OoH to have spent or allocated this money within 4 years, and must repay the contractor any unspent or unallocated money after that time.

The agreement also:

- waived any liability for both parties against prior acts or omissions
- provided intellectual property rights to the OoH to use HiiP system source code and documentation
- enabled the OoH to novate the contract within 6 months after settlement

- established an agreement by both parties not to initiate any proceedings related to the contract, Heads of Agreement and other related agreements and contracts.

Figure 5L
HiiP budget and net cost to 31 December 2006

	$m	$m
Budget		
Project budget		75.0
System enhancements		18.0
Total budget		**93.0**
Costs		
Contractor and sub-contractor fees	25.5	
Less Refund on settlement	(10.0)	15.5
Internal costs		
OoH staff costs	8.2	
Contractor fees	17.8	
Indirect costs	7.1	
ISIP operating and maintenance costs	10.7	43.8
Total costs		**59.3**
Revenue		
Compensation payment		**16.0**
Net cost		**43.3**
Unexpended project budget		**49.7**

Source: Victorian Auditor-General's Office, from data supplied by the OoH.

The OoH has not finalised its budget for the completion of HiiP. It plans to complete the project within the current budget, although the Director of Housing indicated to the Public Accounts and Estimates Committee hearings in July 2006 that the OoH may incur further costs through the procurement of new contractors.

5.8.3 HiiP implementation

A range of issues impacted on the successful implementation of the HiiP project. The contractor's inability to develop and implement the system within the established time frame was paramount. We discuss the key actions the OoH undertook to improve the contractor's performance later in this part of the report.

During this audit, we identified a number of other issues that impacted on the success of the project, i.e.:

- project governance
- project management
- contract management
- risk management.

Project governance

The OoH was responsible for the governance of the HiiP project, and established a project steering committee (PSC) to direct and manage the project. The PSC was the "owner" of the governance process, with core responsibilities that included:

- confirming the suitability and completeness of project arrangements
- monitoring project progress, ongoing risks and vendor performance
- providing clear directions to the project sponsor as to the project requirements and decisions
- reviewing vendor deliverables at key project milestones before providing approval to proceed.

During this audit, we found that the governance arrangements did not provide the control and oversight of the HiiP project necessary to ensure achievement of project outcomes. We discuss project governance issues below.

Separate governance structures

The OoH and the contractor each had its own project governance structure. There was not an overall framework establishing how the 2 parties would work together to deliver the project. The parties operated as 2 separate entities, and this impacted on the level of coordination, communication, teamwork, and risk and issue management between them.

Project steering committee roles

The chair of the PSC did not actively participate in the PSC. The project sponsor (also the deputy chair), performed the role of chair for an extended period. This created a potential conflict of interest within the PSC, because:

- a key role of the chair was to provide clear direction to the project sponsor (in this case the same person)
- the role of project sponsor was to ensure, under the direction of the PSC, that the HiiP system was delivered on time, within budget and to the required quality.

Further, because one member of the PSC in effect played 2 roles, i.e. chair and project sponsor, the level of scrutiny that the PSC could apply to the project was potentially diminished.

Assessing project changes

The PSC did not systematically challenge or assess the impact of project scope changes. A formal change control process was established, which required the OoH to assess significant project changes in terms of their impact on time, quality and cost (impact assessments). We found no evidence that the OoH systematically assessed the impact of additional development work it approved. Our analysis of approved work orders showed that in most cases, only brief impact assessments were conducted, but by the contractor, and not the OoH. The project sponsor formally approved the additional development work based on these assessments.

By June 2005, the project plans for stage 2 (under development since 2002) had exceeded the intended scope (identified in the request for tender documentation) by 2 869 days of development effort. After realising the scope had been exceeded, the OoH modified its project plans, eliminating the development effort to bring the project back within scope.

Project management

Various reviews of the HiiP project undertaken for the OoH between 2004 and 2006 identified project management as an ongoing issue. We discuss project management issues below.

Project manager roles

A significant issue that impacted on the success of the project was the joint role of the contractor: the contractor was engaged to develop the HiiP system for the OoH, and was also engaged as the project manager. This created a risk that the OoH would lose control of the project, by not receiving adequate information to assess the project's status, and to enable timely corrective action. This risk was realised during the contract.

The OoH advised us that the PSC did not receive the progress reports and quality metrics that it required to understand the project's status from the contractor/project manager. The OoH felt that it was not appropriately informed or consulted about project re-planning and that it did not receive planning reports by the contractor/project manager. Because of this, the PSC was unable to accurately determine project progress and quality, or take timely corrective action.

This situation contributed to the significant changes in project scope and deliverables over the term of the contract. What began as delivery of a combined off-the-shelf and custom product solution to meet the OoH's needs, transformed into a large-scale custom development project.

The project manager should have been a person independent of the contractor.

Project management framework

There was no overarching project management framework detailing milestones, dependencies, tasks and resources. Project role definitions and responsibilities were also unclear. This made it difficult for the OoH to assess the true state of the project and to take corrective action when needed. The absence of a project management framework was noted in OoH-commissioned reviews in December 2004, and again in June 2005, nearly 3 years after the project started.

Project relationships

Poor communication, teamwork and a lack of trust between the parties meant that the relationship between the OoH and the contractor was not conducive to successfully manage a project as large and complex as HiiP became. Issues and risks were not dealt with quickly and effectively, resulting in reduced quality, and cost and schedule overruns.

Contract management

The OoH established a process between itself and the contractor to ensure that the system developed met the OoH's quality requirements, before the software was accepted and the contractor paid. The process included user acceptance testing and model office testing to ensure that user and business needs were met. Payment was to be made once:

- all planned tests had been completed
- the OoH had reviewed all the defects outstanding after testing was complete, and agreed with the severity that had been allocated
- no defects with severity or priority classification of one or 2 remained outstanding, unless specifically agreed by all parties
- the remaining defects had an agreed action plan for resolution.

The OoH did not follow its own guidelines when accepting the stage one software. Acceptance of, and payment for, the software occurred without the user acceptance testing exit report to demonstrate that the user acceptance testing criteria had been met.

The stage one software was implemented into a production environment with a number of known material (priority one or 2) defects, without the required action plans and without an undertaking from the contractor that the defects would be addressed, as required.

As a result, the stage one software went into production in a form that did not meet contractual performance standards, and did not meet user and business needs. Significant remediation was needed following its implementation. HiiP users (regional staff, maintenance call centre staff and head contractors) identified 22 areas that required changes to ensure user and business needs were met.

Risks identified in the tender evaluation

During the HiiP project's tender evaluation phase, the OoH identified a number of risks associated with the contractor's proposed solution, including that the:

- proposed software was untried with the contractor's existing clients
- contractor had not previously implemented the complete solution proposed
- contractor had yet to develop the proposed software
- contractor had not previously used the developers of the software code
- extent of redevelopment exceeded expectations, leading to a higher risk of timelines not being met.

Many of the risks identified in the tender evaluation eventuated. In its analysis after settling the contract, the OoH identified that:

- the contractor lacked the experience to manage the project, with the OoH relying too much on the contractor's housing experience, rather than the contractor's ability to deliver the solution
- elements of the program's architecture were problematic
- the contractor had inadequate standards for the design, quality, build, deployment, testing and change control
- the contractor provided poor quality software code.

The risk of not meeting timelines also eventuated. Delays in implementing stage one were evident as early as March 2003. The first milestone revision occurred in May 2003, and implementation milestones were revised at least 7 times between May 2003 and February 2006.

In addition to these risks, at the end of the detailed functional fit stage (part of the tender evaluation), 319 issues relating to the functionality of the proposed system were identified. These ranged from low to high risk. The OoH and the contractor included these matters in the contract in 2002 as items the contractor committed to rectify.

The OoH advised that it implemented risk mitigation strategies for the development of the software underpinning stage one, including:

- a 3-tier acceptance test strategy
- formal sign-off of the design specifications
- implementation of change management processes.

The OoH was unable to provide evidence that all risks identified during the tender evaluation were entered in its project risk register, or that it developed and implemented strategies to mitigate them.

5.8.4 Identifying learnings and moving towards successful project completion

It is clear that the problems experienced during the HiiP project to date were extensive. Between June 2003 and mid-2005, the OoH acted to address problems with the contractor by:

- corresponding with the contractor throughout the term of the contract to raise and address contract performance issues
- commissioning reviews in September and October 2004, by independent experts, to assess the contractor's ability to deliver HiiP. The OoH intended that the results of the reviews would inform their decision whether to formally change the project milestones through a Heads of Agreement
- participating in mediation in March 2005, following a series of contractual disputes with the contractor. Agreement was reached on 17 issues that involved clarifying roles, project payments and project scope

- establishing a Heads of Agreement in June 2005 to clarify the roles and responsibilities of both parties for the duration of the contract. Both parties were bound to a key set of principles, confirming a mutual commitment to complete the project by revised timelines, and mutually releasing both parties from liability for past actions.

Despite these actions, the OoH was unable to ensure the successful completion of the project by the initial contractor. Following the settlement of the contract, the OoH conducted an internal assessment to identify factors that led to the failure to deliver all project stages within the project timelines. The assessment was complemented by an external review of the project's health, risks and issues, in May 2006. This review made recommendations for an alternative approach to project delivery.

Based on these assessments, the OoH has developed a strategy to guide it through the next phase of HiiP development and implementation. The strategy recognises the issues described in this report, with changes approved by the newly developed HiiP board for improved project governance, management of the project, and future contracts and project risks. Our review of available documentation and discussions with OoH staff indicate that the OoH is committed to ensuring that these problems do not re-occur during the next phase of HiiP development and implementation.

We reviewed the strategy developed and the actions implemented by the OoH in response to the lessons learned to date, and consider them to be sound. The strategy's timely and effective implementation will be critical to the successful completion of the project and the achievement of improved management and maintenance of public housing.

RESPONSE provided by the Secretary, Department of Human Services

Recommendation 5.1

Agreed. However, while the contract requires contractors to endeavour to achieve a compliance benchmark of 97.5 per cent, the trigger point for financial penalties is 95 per cent. The contract will be amended at the next contract renewal opportunity to align the compliance benchmark/penalty percentage. The audit recommendation for consistent recording of failure to meet the compliance benchmark will be implemented. The OoH will however continue to apply a balanced approach to performance management in the spirit of the commercial partnership.

FURTHER comment by the Auditor-General

The responsive and vacated maintenance contract states that "As part of the evaluation process, the Principal sets a compliance benchmark, and contractors are required to meet that benchmark score based on a maximum possible score of 100 per cent. The current benchmark set by the Principal is 97.5 per cent. … The contractor shall use its best endeavours to ensure that its actual contract performance score does not fall below 97.5 per cent."

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

Recommendation 5.2

Agreed. Liquidated damages have been applied since 1 January 2007 post resolution of contractor and staff issues associated with the management of the new KPIs and stabilisation of systems.

Auditor-General's reports

2006-07

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