

5 Monitoring and review of the program

At a glance

Key findings

- The HealthSMART program has established robust governance structures, with the presence of senior departmental and agency representatives enabling frank and open discussions of program risks and deliverables.
- Oversight of the program could be strengthened if regular independent assurance on the progress of the program was conducted. Only one of the five Gateway reviews required in the funding approval has been conducted.
- Overall program management processes are sound and adequate controls are in place to coordinate the complex program.
- DHS has faced challenges in ensuring that vendors perform to their contractual requirements. DHS has taken a proactive approach to managing its vendors.
- OHIS continues to have difficulties attracting skilled and experienced ICT personnel and continues to rely on contract staff and secondments from health agencies to fill key positions.
- Although portfolio charters broadly describe the benefits to be obtained from a system implementation, no benefits 'baselining' had been done for the FMIS/HRMS or PCMS applications. Audit was not able to find evidence of benefits planning or reviews at the agency level for these applications.

Key recommendations

- DTF and DHS should ensure that the HealthSMART program and its component portfolio projects are subject to timely Gateway reviews, consistent with current policy on high expenditure/high risk projects and programs.
- DHS should ensure regular internal audits of aspects of the HealthSMART program, given the high levels of risk and expenditure involved.
- DHS, in collaboration with implementing agencies, should review the benefits received from the implementation of the HealthSMART program. This should focus on whether:
 - the applications and ICT infrastructure are operating as planned
 - benefits are being realised
 - ICT systems and infrastructure are providing the expected functionality, without any negative impacts.

5.1 Governance and management

5.1.1 Introduction

Sound program governance and management ensure business objectives are delivered in an efficient and effective manner.

The Victorian Government's Gateway Review Process¹ and the UK Office of Government Commerce have identified that adequate and robust management systems and processes are central factors for project success.²

5.1.2 Governance of HealthSMART

Board of Health Information Systems

In November 2003 the Board of Health Information Systems (BHIS) was formed to oversee the development and implementation of the *Whole-of-health Information and Communication Technology Strategic Plan 2003-2007* and to provide high-level direction for the HealthSMART program.

BHIS is comprised of senior representatives from DHS, DTF, primary and community health agencies, metropolitan health services, and rural and regional health ICT alliances. It should be noted that the board does not have any executive powers—it is an advisory body within the broader governance environment of DHS.

The Secretary of DHS is the chair of BHIS and actively participates in decision-making in relation to the HealthSMART program, reporting to the Minister for Health.

The OHIS program director and executive officer also attend board meetings which are held every two months.

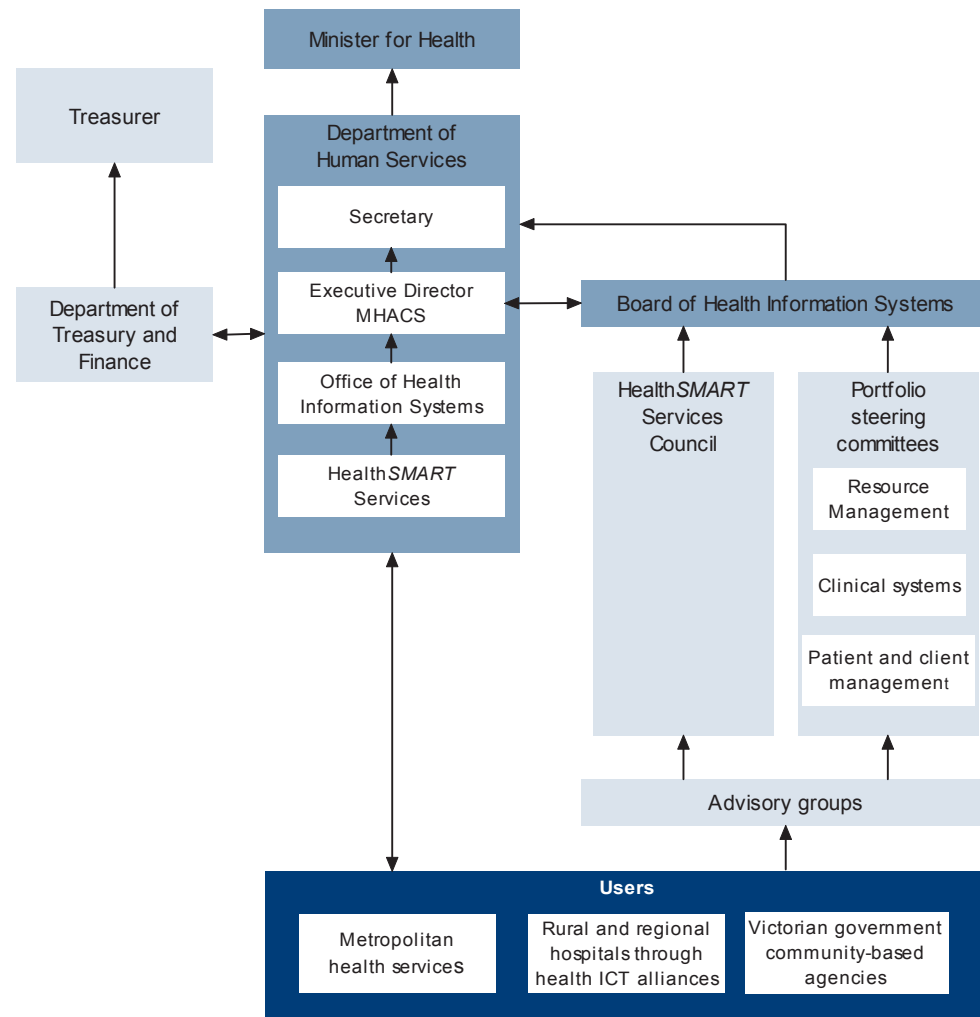
BHIS is supported by OHIS and has four steering committees, one for each of the program's four portfolios (Resource Management Systems, Patient & Client Management Systems, Clinical Systems and HealthSMART services).

The chairs of the portfolio steering committee (who are usually senior agency executives) are also members of the board. This cross representation ensures that information flows between the board and its supporting committees.

¹ According to the Gateway Review Process (GRP) website <<http://www.gatewayreview.dtf.vic.gov.au>>, the GRP is part of the Victorian Government's Gateway Initiative to improve infrastructure and Information Communication Technology project development and delivery across government. The aim of the GRP is to help government departments and agencies ensure that their investment is well spent, meets business and the government's strategic objectives, and achieves value-for-money outcomes.

² Good practice criteria are based on 'Managing Successful Programmes' 2007, Office of Government Commerce, United Kingdom.

Figure 5A
HealthSMART program governance and management framework



Source: Victorian Auditor-General's Office

Review of board minutes and interviews with 9 of the 13 current board members (including the four chairs of the supporting committees) showed that discussions about the program were open and frank and that there was clear reporting of risks.

Examples of key issues and risks discussed and actioned by the board include:

- HealthSMART participation policy and issues that have arisen from it
- vendor performance and viability issues—in particular the board has sought and received regular updates on the viability of the PCMS vendor

- changes to program scope review of crisis events such as the May 2005 failure of the FMIS system³
- endorsement of all major revisions to program timelines and budgets.

Operational leadership of HealthSMART

At the program level, the program director, portfolio managers, and the manager of the program management office (PMO) provide operational leadership in the HealthSMART program. Portfolio managers report regularly to portfolio steering committees, with the OHIS program director informing the board about the status of the program at each board meeting.

The BHIS and its supporting steering committees have adequate stakeholder representation, and have been provided with regular reports by the OHIS director. Reports cover the program's progress including financial, change, quality, risk and contract management issues. The Board has also received further reporting by key contractors on achievement of their expected deliverables.

DHS has placed significant emphasis on the governance and management arrangements for HealthSMART since its inception and we found that these arrangements met our expectations.

The board has assessed and vetted additions to the program—(such as payroll systems) using a robust business case approach and has rejected other additions (such as the implementation of a billing system) where the benefits do not outweigh the costs or are not aligned with the strategic intent of the program.

On the whole, our analysis showed that BHIS leadership has ensured that the program and its outputs are aligned with the original HealthSMART strategic vision.

External scrutiny and independent assurance and advice

Each quarter, OHIS reports through DHS to the government via DTF quarterly asset investment management reports.

The approval of the HealthSMART program required that it would be subject to the requirements of the Gateway Review Process. This process calls for independent reviews at key decision points for high- and medium-risk projects.

During the four-year life of the program, only one of the five Gateway reviews required for the HealthSMART program have been conducted (Gateway 3: Procurement Strategy Review, which was conducted in July 2004 on the Patient and Client Management System).

³ A significant outage of the FMIS production system occurred on 15 May 2005, with an adverse impact upon agencies. The incident resulted in the loss of approximately 4 hours of FMIS production data and 2 days of system unavailability.

DHS has liaised with the Gateway Unit and prepared a forward plan for Gateway reviews, however, to date, there have been no further Gateway reviews confirmed for the program.

No internal audits have been conducted by DHS, which also advised that, at this stage, there is no internal audit activity planned for the HealthSMART program.

Conclusion on governance of HealthSMART

The HealthSMART program has established adequate governance structures and processes. The presence of senior departmental and agency representatives enables frank and open discussion of program risks and deliverables.

However, the mandated Gateway Reviews have not been conducted at key decision points. There has not been any internal audit activity—conducted or planned.

Oversight of the program would be strengthened if regular independent assurance on the progress of the program was conducted.

Recommendations

- 5.1 DTF and DHS should ensure that the HealthSMART program and its component portfolio projects are subject to timely Gateway reviews, consistent with current policy on high expenditure/high risk projects and programs.

RESPONSE provided by Secretary, Department of Treasury and Finance

DTF notes this recommendation.

Project assurance mechanisms, such as the Gateway Review Process, help provide strategic assessment of progress at key project phases, aiding in the successful completion of high risk projects and programs.

The current status of the HealthSMART program would dictate whether the conduct of Gateway program reviews could contribute to a successful completion of the program or derive lessons learned for future undertakings. DTF will liaise with DHS to assess the opportunities for future reviews of this program.

- 5.2 DHS should ensure regular internal audits of aspects of the HealthSMART program, given the high levels of risk and expenditure involved.

5.1.3 Program/project management

In July 2003, OHIS established a team to manage the HealthSMART program. It comprised a Program Management Office (PMO), four portfolio managers and a technical services manager.

The PMO is responsible for formulating and promoting a consistent project management methodology for management of HealthSMART portfolios and implementation within individual agencies. The HealthSMART approach to project management is loosely based on PRINCE2.⁴

The PMO is also responsible for monitoring whole-of-program dependencies, milestones, costs program risks, issues and benefits. This is done through a series of master plans and registers that aggregate information from portfolios and provide a central point for coordination of information across multiple portfolios.

A HealthSMART program funding condition requires agencies to implement specified project governance arrangements (including the appointment of a project manager to manage their involvement) and regularly report project progress to OHIS. They must also collaborate with the HealthSMART portfolio managers and develop project plans.

OHIS has prepared a change management strategy in the form of a transition and contingency plan. OHIS has provided agencies with the tools to manage implementation of the HealthSMART systems, but are concerned that some agencies may not have adequate project management experience.

Human resource pressures

There has been continuity in the leadership of the central elements of the program. The director of OHIS and the manager of the PMO have been in these roles since the inception of the program in 2003.

OHIS has found it difficult to recruit people with sufficient experience and skill for several of the ICT technical specialist and senior project management positions, due to salary band and headcount restrictions within the DHS branch and division structure. To address this, OHIS has had to rely heavily on contract staff and secondments from health agencies to fill key positions.

Not having access to technical expertise and project managers experienced in large ICT projects has caused delays in the procurement and implementation of HealthSMART applications and HealthSMART Shared Services.

Key positions, such as the portfolio manager and account manager for clinical systems, are currently vacant. This capability gap exposes the program to further risks of delay to the implementation and delivery of its largest and most significant application.

Conclusion on program/project management

Program and project management processes are sound.

⁴ See <http://www.ogc.gov.uk>.

However, OHIS will continue to have difficulties attracting skilled and experienced ICT personnel if they do not have access to ICT technical specialist salary bands as part of their human resource needs for the program.

If this is not achieved, OHIS will have to rely on contracting staff and secondments from health agencies to fill these key positions.

5.1.4 Cost/budget management

OHIS provides the board with regular financial reports that report actual expenditure against budget for the current financial year and for the life of the program. The financial reports only include expenses of OHIS, but not agency contributions.⁵

Although OHIS is responsible for the budget, it does not collect, collate or report on agency contributions and the board does not receive financial reports about agency contributions.

OHIS advises that the accurate collection of agencies contributions is made more difficult as they include both 'in-kind' (such as staff resourcing) and cash contribution (asset improvement).

Conclusion on cost/budget management

OHIS does not collect information about, nor monitor, agencies' contributions to the total project budget, which means that they do not have a complete picture of the 'full costs' of the HealthSMART program.

Without this information, OHIS is not able to accurately report against the total program funding envelope approved by the government.

Recommendations on this issue are in part 3 of this report.

5.1.5 Risk and issue management

Successful program management requires the need to both manage and tolerate uncertainty, complexity and ambiguity. Risk management and issues resolution systems are the vehicles to achieve this.

The Australian and New Zealand Risk Management Standard, AS/NZS 4360:2004, defines risk as the chance of something happening that will have an impact on planned achievements. Risk management is a comprehensive process, supported by appropriate strategies and frameworks that are designed to identify, analyse, evaluate, treat and monitor those risks that could prevent a department or agency from achieving its objectives.

⁵ As explained elsewhere in this report, agencies will make a contribution equivalent to \$25 million of the \$310 million HealthSMART budget. OHIS will provide the other \$285 million. The financial reports presented to the board only include costs relating to the \$285 million.

Issues are events that have happened, were not planned, and are currently affecting the program in some way and need to be actively resolved.

Program wide risk and issues register

A program-wide risk and issues register has been developed and is maintained by the project director/PMO manager with input from project managers, suppliers and stakeholder representatives who are encouraged to monitor, identify and manage risks.

The risk and issues register includes the most significant risks to the HealthSMART program, the ranking of the risks with the likelihood of the risk occurring and the controls or mitigation strategies to reduce the likelihood of the risk occurring. Key risks are reported by the project director at each board meeting.

OHIS maintains a risk and issues register including mitigation actions for each portfolio. Steering committees monitor the register and report to the board. Cascading risk and issues registers have been used by the PMO and project managers and transparently reported.

Conclusion

The program has robust risk management processes in place.

There is transparent reporting, monitoring and accountability for key risks and issues, ensuring that key risks are openly discussed and addressed.

5.1.6 Benefits management

A focus on benefits management enables those delivering and governing ICT programs to focus on business outcomes, not just the implementation of technology. Benefits management processes require identification, delivery and monitoring of both tangible and intangible benefits.

DHS did not develop a whole-of-program benefits management plan until May 2007 (3 years into the program), but is now reporting every quarter to DTF against this plan. The benefit reports are also presented regularly to the BHIS.

The key performance indicators (KPI) supporting the current benefits management plan are indicators of outputs rather than outcomes or benefits. For example, the KPI measuring whether the benefit—'Drive the transformation of Victoria's health services'—has been realised is 'the number of implementations of clinical systems'. A more appropriate measurement of benefits of clinical systems could be 'the reduction of adverse outcomes for patients'.

The OHIS program implementation methodology requires benefits to be 'baselined' to enable comparison with current and future states. The methodology also requires that benefit plans be prepared by each agency as part of the implementation.

To date, neither DHS nor any of the agencies covered by this audit have undertaken any benefits studies for the implemented systems.

We observed that although portfolio charters broadly describe the benefits to be obtained from a system implementation, no benefits 'baselining' had been done for the FMIS/HRMS or PCMS applications. Further, we were not able to find any evidence of benefits planning at the agency level for these applications.

A benefits realisation plan was developed by DHS during planning for clinical systems to identify potential benefits to be derived from implementation. Studies were conducted at three Victorian pilot agencies to form state baseline results. The approach used included interviews, literature review, surveys, time and motion studies and statistical analysis.

After baseline measures were completed, anticipated savings/efficiencies were calculated to produce measurable and objective key performance indicators (KPIs) for the clinical system project.

Conclusion

OHIS did not develop benefit management plans for the FMIS, payroll or PCMS systems. There is no evidence of any benefit studies being conducted for these systems at the agency level.

OHIS has developed a whole-of-program benefits management plan, however, some of the KPIs in that plan are measures of activity and output rather than measurable outcomes or benefits.

Recommendation

5.3 DHS, in collaboration with implementing agencies, should review the benefits received from the implementation of the HealthSMART program. This should focus on whether:

- the applications and ICT infrastructure are operating as planned
- benefits are being realised
- ICT systems and infrastructure are providing the expected functionality, without any negative impacts.

5.1.7 Stakeholder engagement

Stakeholder engagement within programs is crucial to ensure that those who have an impact on the achievement of the program, or may benefit from its implementation, will buy into its vision.

It is a way of achieving influence and outcomes through effective management of relationships.

Involvement of key stakeholders helps to ensure broad support for change and increases the likelihood of successful implementation. Transparent communication about progress between system developers, implementers and service users is vital to maintain users' confidence in what is being delivered.

OHIS communication with stakeholders

OHIS engages with key stakeholders in a number of ways. Communication activities are aimed at:

- upper levels of health agency management—such as chief executive officers, chief information officers, chief financial officers—as well as chairs of healthcare agency boards
- HealthSMART program and local steering committee members
- senior members of rural health ICT alliances
- primary and community healthcare agencies.

OHIS' communication initiatives include:

- the HealthSMART website⁶—the website is a principal communication mechanism and is regularly revised and updated
- a quarterly newsletter cycle has been established for each portfolio area
- a fortnightly eBulletin—emailed to more than 400 stakeholders
- regular HealthSMART contributions—published in the Primary and Community Health Weekly Bulletin⁷
- the HealthSMART Roadmap⁸—updated on a quarterly update cycle
- the HealthSMART QuickPlace—a secure internet site used to manage communications for several groups across the project, including lead agency project managers
- organisation of technical symposiums and application demonstrations to engage with staff responsible for implementation
- meetings with CEOs, CIOs and staff across the VPHS.

Our analysis showed that communication between HealthSMART and upper levels of management within healthcare agencies is satisfactory. We saw evidence that senior OHIS staff meet regularly with agency Chief Executive officers (CEOs) and Chief Information Officers (CIOs) to discuss the program and manage emerging issues.

However, communication with other stakeholders, such as clinicians and primary and community health care professionals, has not always been as regular or targeted.

OHIS considers change management and communication of progress to be health agency responsibilities. We observed that agencies have had variable success in communicating and informing their staff of HealthSMART related changes.

⁶ <<http://www.health.vic.gov.au/Healthsmart>>

⁷ <<http://www.health.vic.gov.au/pchtopics/>>

⁸ <<http://www.health.vic.gov.au/Healthsmart/documents/driveguideaug07.pdf>>

At the time of the audit, neither OHIS nor the health agencies we audited have any way of ascertaining if they were effectively communicating with their key stakeholders

Agency participation

Some agencies have been enthusiastic supporters of the program and have made a strategic decision to align with the strategy. Other agencies have been more reluctant and difficult to convince.

Obtaining agency participation and getting participating agencies to agree to the implementation has been a challenge for the program. Agencies explained these delays in terms of their view that:

- OHIS had not provided them with reliable information on system implementation and/or ongoing costs which would be sufficient for their boards to approve
- there were cheaper solutions in the market
- there could be a loss of functionality after implementation of HealthSMART applications.

As discussed in part 2 of this report, poor early buy-in by agencies has led to an enforced participation policy, which was developed in February 2006 and promulgated by the Secretary of DHS to health agencies. This policy requires agencies which intend to introduce or replace ICT systems to implement the relevant HealthSMART system.

An agency will be granted an exemption from this policy if it is part of a larger national organisation and is required to use its system, or if the agency's needs differ significantly from the HealthSMART system. The Secretary of DHS must approve any exemptions. Exempt agencies will be required to pay the full cost of implementing an application and integrating it with the HealthSMART systems. Agencies will not be granted an exemption merely because their preferred solution has the same or reduced functionality, or is cheaper than the equivalent HealthSMART system.

To date the sole application for exemption has been approved. The Loddon Mallee Health ICT Alliance was granted an exemption to upgrade a non-HealthSMART PCMS. This exemption was granted as the PCMS at Bendigo Health and Echuca Health was obsolete and OHIS was not able to accommodate an additional implementation at that point in time.

Conclusion

The HealthSMART PMO has attempted to manage stakeholders effectively in a difficult environment. However, due to various pressures faced by health agencies, some stakeholders have been resistant to the implementation approach used by OHIS.

OHIS could assist agencies to improve communication with staff and assist agencies to better inform staff about the progress and expected benefits of the program after implementation.

A survey of current and future users would allow DHS and agencies to identify gaps in understanding of the program among agency staff and to target their communications efforts more effectively.

5.1.8 Procurement management

Selection and evaluation process for tenders

In assessing whether the selection and evaluation process for tenders was adequate, we examined if:

- the selection process was conducted with probity
- there were detailed evaluation criteria
- a comprehensive report on the tendering process was prepared, and if it concluded that the process was fair and timely
- the evaluation considered whether tenders adequately addressed users' requirements.

DHS has established an Accredited Purchasing Unit to oversee tendering arrangements and to ensure that its purchasing procedures for goods and services are in line with Victorian Government Purchasing Board (VGPB) guidelines. The unit approves contracts between \$100 000 and \$500 000. Contracts over \$500 000 must be endorsed by the unit and then submitted to the OHIS board for approval.

DHS sought expressions of interest for the supply and implementation of HealthSMART projects through a 'request for tender' (RFT) process. The RFT documents included tender specifications, evaluation criteria (such as value for money) and general tender conditions. Documents for each tender were approved by the relevant portfolio steering committee and by the minister before being issued.

To evaluate responses to the RFT, DHS brought experts from health agencies to sit on evaluation teams. The teams were required to evaluate the responses in line with the endorsed RFT evaluation methodology (which had been prepared in conjunction with the RFT documentation). The methodology included a shortlisting process (to determine whether mandatory requirements had been met) and two or three evaluation stages, depending on the system being procured. Evaluation committees comprising health agency representatives were formed to assess the tender responses.

Figure 5B below shows the stages of the evaluation, and the number of tenders that successfully passed from one stage to the next.

Figure 5B
HealthSMART evaluation stages and numbers of tenders for each system

Evaluation stages	HRMS					
	FMIS	(Payroll)	P&CMS	CMS	PMS	CS
1. Mandatory requirements	19	6	5	3	2	9
2. Evaluation of the technical and functional responses included in tenders	3	3	1	2	2	5
3. Testing of proposed functions, assessment of tenderers' capability, commercial evaluation ^(a)	1	1	1	1	0	2
4. Final analysis (only applicable to HRMS and CS)	n/a	1	n/a	n/a	n/a	1

Note: (a) The evaluation stages for HealthSMART products were: mandatory compliance assessment; paper based evaluation of responses against technical and business selection criteria; demonstration by vendors via evaluation team (which included representatives from health agencies) developed scripts of technical and business selection criteria; reference checks, including site visits of products in use. VFM assessment(s) were then conducted after the completion of these four stages.

Source: OHIS.

At the time of the audit, tenders for all five systems had been evaluated and awarded. The evaluation committees had prepared comprehensive reports with recommendations to the relevant portfolio steering committee.

Independent probity auditors conducted probity audits of all projects at each evaluation stage to ensure that government tendering policies were followed and Victorian Government Purchasing Board probity requirements met.

For all of the key procurements conducted, the probity auditors concluded that a fair and proper evaluation process had been conducted.

After the conclusion of the procurement process for the PCMS application, a complaint was made by an unsuccessful tenderer alleging a number of process breaches, as well as a conflict of interest between a staff member of OHIS and the successful tenderer.

These complaints were escalated to the VGPB for investigation. After investigating the claims, the Chair of the VGPB wrote to DHS on 28 November 2005 stating the Board's findings, which were *inter alia*:

- A working document was provided to a tenderer prior to the release of the RFT, which was a breach of the tendering rules. The VGPB found that the source of this document was not able to be discovered, however, it also found that the nature of the document was not likely to have had an effect on the outcome of the tender.

- An unsuccessful tenderer was given incorrect advice on the timing of production to DHS of a Victorian Industry Participation Policy statement, which was a technical breach of the tendering rules. However, the VGPB found that this technical breach did not affect the outcome of the tender.
- The conflict-of-interest complaint was found to be substantiated by the VGPB due to the fact that an OHIS employee had inappropriate social contact with a tenderer during the bidding phase. Nevertheless, the VGPB's investigation also found that because the employee had no role in decision-making about tenderers beyond an initial recommendation (which was not accepted by the steering committee and BHIS), his inappropriate social contact did not have any impact on the outcome of the tender.

Revisions to some RFTs to meet user requirements

At two stages during the evaluation process, work was undertaken to define the difference between what tenderers were offering and what users required from the systems. A preliminary 'gap analysis' was conducted as part of the second evaluation stage and a comprehensive analysis conducted during contract negotiations.

For the comprehensive analysis, experts and project managers from HealthSMART lead agencies and tenderers met in workshops to assess the systems being offered against the user requirements in the RFTs.

Gaps identified were either resolved or referred to the State-wide Footprint Committee⁹. The committee prioritised gaps in user needs and advised portfolio steering committees about priorities for addressing gaps. This information was used during contract negotiations.

The total value of the revisions to the user requirements in the RFT as requested by the portfolio steering committees was \$299 000 for the FMIS and \$700 000 for the PCMS.

The workshops identified no gaps for the payroll system, although some agencies maintained that the system may not completely meet their needs without further modifications.

Conclusion

The selection and evaluation processes conformed to government requirements, including independent probity reviews.

Lapses in the application of the tendering process for the PCMS application were identified by the VGPB, however, they concluded there was no evidence that these lapses breached the probity of the procurement process.

⁹ The State-wide Footprint committee ensures that all changes to the state-wide footprint or design for an application are authorised. Membership consists of participating agencies and DHS staff.

Although the successful tenderers did not comply completely with all user requirements, OHIS had effective processes in place to identify and ensure that gaps in vendor offerings were addressed to meet user needs.

5.1.9 Vendor/contractor management

While most of the vendors are performing adequately, some are not delivering on their contractual obligations in a timely manner and not meeting pre-defined service levels.

OHIS is actively managing this non-performance by:

- revising payment schedules and milestones
- establishing remediation plans for vendors
- lobbying for the replacement non-performing vendor project managers/executives.

OHIS hold regular meetings between OHIS portfolio managers and the key vendors.

Conclusion

DHS has faced challenges in ensuring that all vendors perform and meet their contractual requirements.

DHS has taken a proactive approach to manage its vendors and has required vendors to accept deferred payments and replace non-performing managers.

5.1.10 Conclusion on whether the HealthSMART program has been effectively governed and managed

Overall program management processes are sound and the PMO has adequate controls in place to coordinate the complex program.

However, OHIS continues to have difficulties attracting skilled and experienced ICT personnel and continues to rely on contract staff and secondments from health agencies to fill key positions.

The program has robust risk management processes. There is transparent reporting, monitoring and accountability for key risks and issues, ensuring that key risks are openly discussed and addressed.

The procurement selection and evaluation processes were sound and while the successful tenderers did not comply completely with all user requirements, OHIS used effective processes to identify and ensure that gaps in vendor functionality were addressed to meet user requirements.

DHS has faced challenges in ensuring that all vendors perform and meet their contractual requirements. DHS has taken a proactive approach to managing its vendors and has required vendors to replace non-performing managers or deferred payments.

Monitoring and review of the program

The governance structure set up by DHS, as well as the presence of senior departmental and agency representatives has enabled frank and open discussions on risks and deliverables for the program.

However, the program's inconsistent achievement against implementation dates and targets means that the exercise of program management and governance needs to be more effective.

