

# Western Australian Auditor General's Report



## PathWest Laboratory Information System Replacement Project



Report 25: June 2019

## Office of the Auditor General Western Australia

7<sup>th</sup> Floor Albert Facey House  
469 Wellington Street, Perth

**Mail to:**

Perth BC, PO Box 8489  
PERTH WA 6849

**T:** 08 6557 7500

**F:** 08 6557 7600

**E:** [info@audit.wa.gov.au](mailto:info@audit.wa.gov.au)

**W:** [www.audit.wa.gov.au](http://www.audit.wa.gov.au)

National Relay Service TTY: 13 36 77  
(to assist people with hearing and voice impairment)

We can deliver this report in an alternative format for those with visual impairment.

© 2019 Office of the Auditor General Western Australia. All rights reserved. This material may be reproduced in whole or in part provided the source is acknowledged.

ISSN: 2200-1913 (Print)  
ISSN: 2200-1921 (Online)

***The Office of the Auditor General acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures, and to Elders both past and present.***

WESTERN AUSTRALIAN AUDITOR GENERAL'S REPORT

---

**PathWest Laboratory Information System  
Replacement Project**

---

Report 25  
June 2019



**THE PRESIDENT  
LEGISLATIVE COUNCIL**

**THE SPEAKER  
LEGISLATIVE ASSEMBLY**

### **PATHWEST LABORATORY INFORMATION SYSTEM REPLACEMENT PROJECT**

This report has been prepared for submission to Parliament under the provisions of section 25 of the *Auditor General Act 2006*.

Performance audits are an integral part of my Office's overall program of audit and assurance for Parliament. They seek to provide Parliament and the people of WA with assessments of the effectiveness and efficiency of public sector programs and activities, and identify opportunities for improved performance.

This audit assessed the if state government entities have effectively managed the project to replace PathWest's Laboratory Information System.

I wish to acknowledge the staff at PathWest, the Department of Health, the North Metropolitan Health Service and the Health Support Services for their cooperation with this report.

A handwritten signature in black ink, appearing to read 'Caroline Spencer'.

CAROLINE SPENCER  
AUDITOR GENERAL  
19 June 2019

# Contents

- Auditor General’s overview..... 4
- Executive summary ..... 5
  - Background ..... 5
  - Audit conclusion ..... 6
  - Key findings..... 6
  - Recommendations ..... 8
  - Response from the WA health system.....10
- Audit focus and scope ..... 11
- Audit findings ..... 12
  - LIS will be late and over budget.....12
  - Early project management was ineffective, but has improved since the DoH’s review.12
  - The DoH has not finalised a comprehensive ICT oversight framework that matches governance to risk .....16
  - ULTRA has continuing costs and technical issues .....18
- Appendix 1: Detailed responses to recommendations 2, 3 and 4 ..... 19
- Appendix 2: Project management better practice principles ..... 23

## Auditor General's overview

This report contains the findings from my Office's performance audit of the management of a project to replace PathWest's Laboratory Information System (LIS).

The size and scale of WA Health means that information communication technology (ICT) projects are a core activity in enabling delivery of health services across the State. However, major ICT projects are rarely simple and successful delivery remains challenging, perhaps more so in WA Health with its tiered governance and distributed management accountability.

This is not the first audit into ICT project governance and delivery that my office has undertaken, and the recurring nature of some of the findings is disappointing. However, there are some encouraging signs. As well as taking action themselves when alerted to problems, the Department of Health asked me to consider auditing the project. That shows a willingness to invite and learn from external scrutiny and indicates a mature approach to continually improving governance.

The report includes important learnings about the LIS project, but I have also made recommendations about tailoring governance to meet project risk in a distributed system. These are relevant across WA Health and for other entities embarking on major ICT projects across the public sector.



## Executive summary

The objective of this audit was to determine if PathWest has effectively managed and monitored the progress of the Laboratory Information System replacement project (LIS project). Our key questions were:

- Has the LIS project been managed to deliver outcomes on time and on budget?
- Does the current information system (ULTRA) still meet the operational needs of the Western Australian (WA) health system?

The audit included several state government entities. PathWest manages and operates the pathology system. The North Metropolitan Health Service (NMHS) was the accountable authority for the project until 30 June 2018. The Department of Health (DoH) is the system manager for all health services. Health Support Services (HSS) host both the current and replacement laboratory information systems.

We decided to conduct this performance audit after correspondence from the Director General of the DoH highlighting serious issues with the project, including a failure in project governance and seeking independent assurance on the actions taken by the entities.

## Background

The WA health sector relies heavily on up to date information communications technology (ICT). This results in many ICT projects each year across the sector, costing millions of dollars. They range from small upgrades at a single site to procuring and introducing large systems which serve the whole health sector.

PathWest provides pathology services to the State's public health system. It operates 50 collection centres, 23 branch laboratories and 5 teaching hospital laboratories, and conducts around 16 million tests each year.

To do this effectively, PathWest needs a stable, accurate, efficient, secure, and well supported LIS. It should order tests, track specimens, prepare and deliver reports and manage billing.

In 2014-15, Government approved funding to replace the existing LIS (known as ULTRA). ULTRA had been in place since 1994, with many additions and changes over time. In 2013, PathWest had estimated the total cost of replacing the LIS, including its staff time and resources, at \$32.5 million.

A vendor was appointed in May 2016, with the new LIS expected to be in place in May 2018. PathWest currently expects that the new system will be operating in April 2020.

In 2018, after several delays to the project 'go-live' date, the NMHS Board and the DoH decided to review the project status and assess the financial situation. Following this review, a new project management team took control in October 2018.

PathWest and the NMHS agreed terms with the ULTRA vendor to extend the service contract for 12 months until 31 December 2019, at a cost of \$734,000.

Until June 2018, PathWest operated as part of the NMHS. It was then established as a separate Health Service Provider (HSP).

## Audit conclusion

PathWest expects the LIS project will be 2 years late and cost \$50.5 million, \$23.7 million more than its original approved project budget. However, PathWest cannot confirm the precise cost of work carried out before 2018.

The existing, out-dated ULTRA system continues to meet PathWest's primary needs, however the delayed replacement project is increasing the risk of vendor support becoming unavailable and potential system failure.

The LIS project began with major problems. The NMHS did not provide effective oversight, there was weak project governance and reporting, an inexperienced management team and insufficiently detailed planning that underestimated the risks and complexity of the project. Together these resulted in inaccurate project budgets, inadequate reporting to senior management and delays.

In August 2018, the DoH reviewed the project and introduced more effective project management, better planning and more complete budgeting. PathWest has forecast that the new system will be deployed in April 2020.

In part, the problems with the LIS project stem from how the DoH oversees ICT across the health sector. The DoH has not developed a comprehensive oversight framework that recognises changing risks in ICT projects across the sector. This is a significant shortcoming. It meant the DoH did not fully understand the comparative risks and resource needs of the LIS project.

Better portfolio governance and project guidance would have increased the likelihood of detecting issues in the LIS project earlier and enabled earlier intervention. The DoH is working to improve its oversight, which will be key to minimising the risk of future projects having the same issues as the LIS.

## Key findings

### LIS will be late and over budget

PathWest expects the LIS replacement will be 2 years late, and cost \$50.5 million, an increase of more than \$23.7 million against the original approved budget. A key cause for the increase was that PathWest significantly underestimated the effort and cost of its own staff working to customise the new system. However, poor budgeting and tracking means that records of actual project costs before 2018 might not be accurate.

### Early project management was ineffective, but has improved since the DoH's 2018 review

The original management of the project did not reflect the size, risks and importance of the project. While there were appropriate structures in place, their implementation was weak. In particular:

- There was insufficient oversight and representation from the NMHS management.
- There was weak segregation of duties between the various project bodies.
- The project leadership and governance team lacked ICT project experience.
- Budgeting did not detail the cost of PathWest staff working on the project.
- There was insufficient planning of the work required to complete the new LIS.

The DoH and the NMHS recognised there were significant issues in the project in June 2018 and initiated 2 reviews. These found major weaknesses, and allowed for a 'reset' of management, planning and reporting. The new arrangements provide PathWest a more robust view of project progress, cost and timelines.

### **The DoH has not finalised a comprehensive ICT oversight framework that matches governance to risk**

The DoH needs a comprehensive, flexible and adaptive ICT oversight framework that adjusts governance to the changing risks of a project. While the DoH's ICT oversight currently focuses on major projects, it has not established the ground-rules for identifying high-risk projects, or for monitoring and assessing them over time. This was a major reason for the LIS project problems going unnoticed until mid-2018.

The DoH is revising the current ICT governance model. The HSS is also currently formulating a set of detailed project guidance and documentation that should provide reasonable performance standards for future projects.

### **ULTRA has ongoing costs and technical issues**

ULTRA is a legacy system that the State is still paying to support and manage, and has several technical weaknesses including system outages. PathWest is aware of these issues, and is confident that they will not affect the new LIS. The delay in replacing ULTRA means PathWest must accept these risks for longer than planned.

---

## Recommendations

### PathWest should:

1. follow the new project management, monitoring and reporting processes to ensure it maintains effective control of the final development and implementation of the new LIS.

### PathWest response:

PathWest agrees with this recommendation and confirms that the new project structure is proving effective in managing the project execution. With a stronger project team in place, the recently formed LIS Advisory Board, and Chief Executive led Project Board are providing more effective oversight of the project deliverables. New reporting metrics have been introduced, providing clearer insight to the project's work streams and achievement of key milestones.

A revised comprehensive project plan has been developed and the project is progressing well to its revised timelines.

### Implementation timeframe:

Ongoing.

### The DoH should:

2. develop and implement a standard risk assessment framework for all major WA health ICT projects by June 2020. This should include:
  - a. criteria for inclusion as a 'major' project, based on expected project cost, medical and health impacts of the system, reach of the system across the sector, maturity of project management and governance frameworks
  - b. criteria for periodic review of projects, including risk profile, key approval points and performance against cost and time targets
  - c. development and establishment of a system manager led ICT assurance function line with the DoH governance and assurance framework
  - d. align the terms of reference for the ICT Executive Board and the ICT Program Committee.

### The DoH response:

Agreed. See Appendix 1 for detailed response.

### Implementation timeframe:

The implementation timeframe for the establishment of the ICT assurance function is as follows:

- detailed scoping by June 2019
- detailed current and future state by September 2019
- model design and governance approvals by December 2019
- development and implementation of policy, standards and assurance artefacts by June 2020
- pilot by June 2020.

3. by June 2020, establish clear expectations for project management guidance and support for all ICT projects in the public health system. This should include:
  - a. agreeing and formalising the role of HSS in providing support and advice on ICT project management standards, methodologies, templates, tools and governance frameworks for the WA health system.
  - b. setting clear standards and expectations for all ICT projects in the health sector through Health Service Provider agreements.
  - c. support the HSS to produce comprehensive guidance for health ICT projects, reflecting project size, resourcing, risk and sector coverage.

**The DoH response:**

Agreed. See Appendix 1 for detailed response.

**Implementation timeframe:**

The DOH will work with and support HSS commencing immediately.

The 2019-20 service agreements which will be issued prior to 1 July 2019 will be expanded to include clear standards and expectations for all Health Service Providers responsible for specified, high risk and high value ICT projects.

**The HSS should by June 2020:**

4. finalise and implement a comprehensive suite of ICT project management expectations, including guidance and support processes. These should be available across the health sector, and applicable to different project size, complexity and risk.

**HSS response:**

Agreed. See Appendix 1 for detailed response.

**Implementation timeframe:**

June 2020.

**The NMHS should:**

5. ensure that current and future ICT projects report to its Executive through normal processes.

**NMHS response:**

Agreed and will ensure this for all future projects. Note that NMHS does not have any current significant ICT projects.

## Response from the WA health system

The WA health system welcomes the performance review of the Pathwest Laboratory Information System (LIS) Replacement report by the Office of the Auditor General (OAG) and has accepted its five recommendations.

The review was conducted following concerns raised by the Director General, Department of Health (DOH) to the Auditor General. The performance of this project at the time (prior to July 2018) was under the governance of the North Metropolitan Health Service (NMHS).

Whilst the LIS project is a complex and challenging clinical support information and communications technology (ICT) project, the WA health system acknowledges the weaknesses in the governance and project management of the LIS replacement project under the NMHS and DOH. The DOH had taken appropriate steps to immediately improve the management and oversight of this project, once concerns became apparent to the DOH.

Revised governance and oversight bodies are now in place to ensure effective control of the final development and implementation of the LIS within a revised schedule.

The WA health system is also committed to building on its existing ICT governance systems and processes to improve project oversight and delivery. This includes:

- Application of a risk-based approach to ICT projects at the early stages of their development.
- The DOH will ensure its ICT governance systems are complemented by the service agreement process and its role in setting performance standards and expectations for the Health Service Providers (HSPs), including in relation to their delivery of ICT projects.
- The Department will continue to advance its performance monitoring and assurance function, particularly in relation to ICT projects.
- The Department will work with and support Health Support Services (HSS) in establishing further enhanced and clearer project management guidance including common standards, methodologies, templates, tools and governance frameworks to ensure successful management of ICT projects across the WA health system.
- All HSPs will be required to ensure that current and future ICT projects report to its Executive through normal processes and to the appropriate ICT Governance body.
- HSS is also establishing new functions and staff capabilities to improve program and project management capability to provide guidance and advice to HSPs. This will include the provision of tailored methodologies, templates and governance frameworks for projects of varying size, complexity and risk.

## Audit focus and scope

This audit assessed whether PathWest and the NMHS have effectively managed the LIS project, and whether PathWest's operations are being appropriately supported during the transition to the new system. The audit has focused on two key questions:

1. Has the LIS project been managed to deliver outcomes on time and on budget?
2. Does the current ULTRA system still meet the operational needs of the WA health system?

In conducting the audit, we:

- reviewed policies, procedures and governance documents
- examined project documents including reporting and reviews
- interviewed key staff in the DoH, the HSS, PathWest, and the NMHS
- spoke with representatives of the ULTRA system provider.

The audit scope did not include project procurement.

This was a performance audit, conducted under Section 18 of the *Auditor General Act 2006*, and in accordance with Australian Standard on Assurance Engagements ASAE 3500 *Performance Engagements*. Performance audits focus primarily on the effective management and operations of agency programs and activities. The approximate cost of undertaking the audit and reporting is \$295,000.

## Audit findings

### LIS will be late and over budget

PathWest expects the LIS project will be 2 years late, and cost almost \$50.5 million, an increase of more than \$23.7 million against the original 2016 approved budget of \$26.8 million. However, poor initial budgeting, planning and documentation meant that records of actual project costs before 2018 might not be accurate.

In December 2013, PathWest submitted a business case to the Department of Treasury. The Government endorsed the recommended option in the business case. The 2014-15 State Budget allocated funding of \$29.4 million for a LIS expected to be operational by mid-May 2018.

An August 2018 review showed an estimated spend to date of \$17.2 million (Table 1). PathWest's most recent estimate is that the LIS will become operational by mid-April 2020. PathWest and the NMHS originally estimated total project cost at \$47.7 million, of which \$32.5 million would be for implementation, and the remainder for future operating costs. We note that the records of budget figures and expenditure were inconsistent, rarely comprehensive, meaning that they do not provide a reliable history. Table 1 is our reconstruction of the budget/cost history.

	2016 Estimate (\$000)	Estimated Spend to 31 Aug 2018 (\$000)	Current Total Estimate (\$000)	Difference between 2016 and Current Estimate (\$000)
<b>Capital</b>				
Payments to vendor	\$17,448	\$9,797	\$17,963	\$515
PathWest staff		\$4,705	\$17,862	
Hardware and testing	\$7,552	\$835	\$3,387	\$21,206
Contingency and other		\$89	\$7,509	
Business readiness, training and data migration	\$0	\$0	\$1,997	\$1,997
<b>Total capital expenditure</b>	<b>\$25,040</b>	<b>\$15,426</b>	<b>\$48,718</b>	<b>\$23,678</b>
<b>Total operating expenditure</b>	<b>\$1,800</b>	<b>\$1,770</b>	<b>\$1,770</b>	<b>-\$30</b>
<b>Total LIS project</b>	<b>\$26,840</b>	<b>\$17,196</b>	<b>\$50,488</b>	<b>\$23,648</b>

**Table 1: LIS project budget and expenditure**

Source: OAG analysis of DoH and PathWest data

### Early project management was ineffective, but has improved since the DoH's review

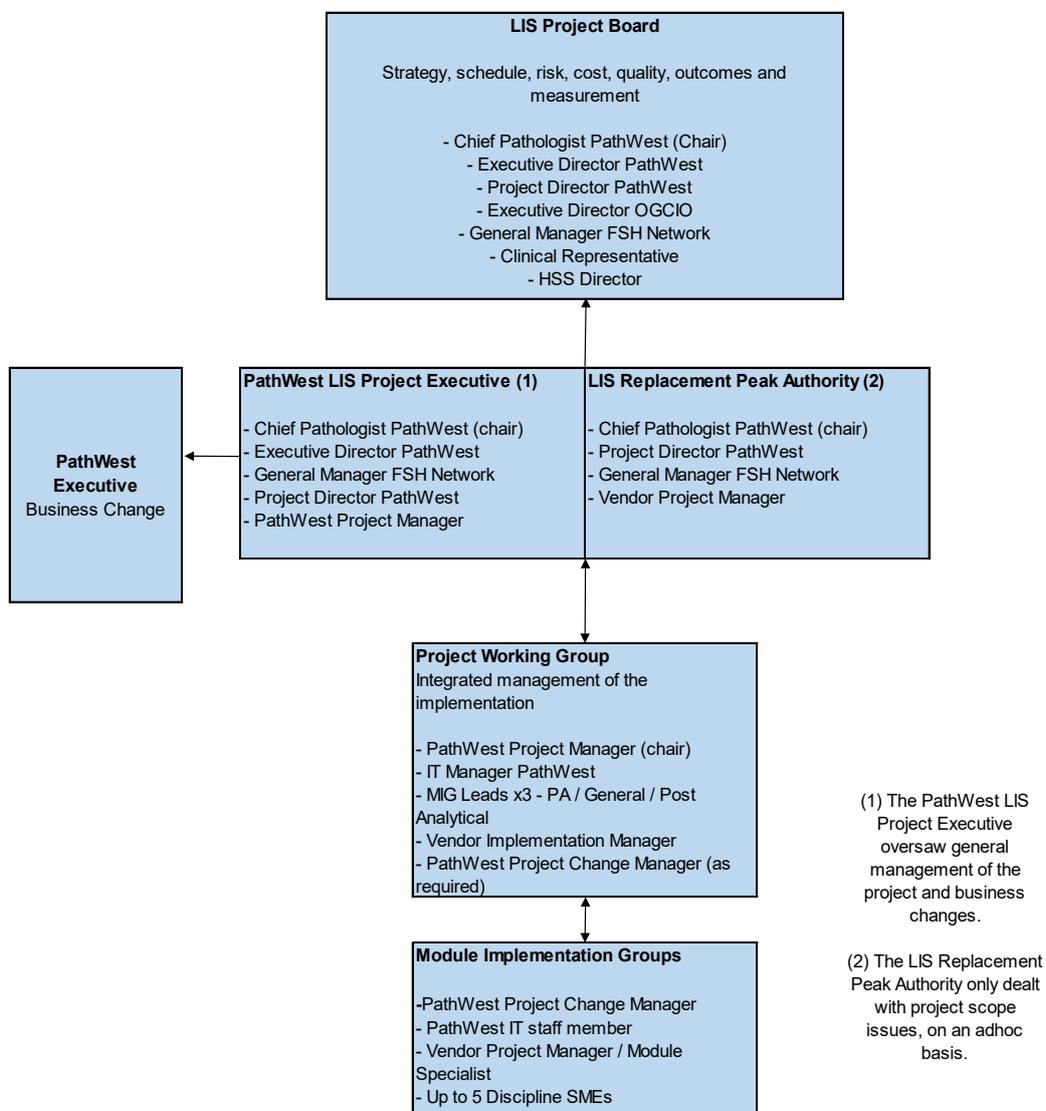
There were major issues with the initial oversight and management of the LIS project. The timelines and budgets were also overly optimistic. Together, these directly affected the time and cost of the project. An intervention by the DoH in 2018 'reset' the project, and put more realistic and appropriate structures in place. The project is now better placed to be completed by mid-2020.

## The early project

The original project management of the LIS project did not reflect the size, risks and importance of the project. Although the internal project structures were reasonable, the way they were implemented limited their effectiveness. This limited the accountability and transparency of the project.

The initial PathWest management structure (Figure 1) established a hierarchy of groups and reporting lines that reflect good practice:

- The Project Working Group would receive information from various Module Implementation Groups, which oversaw the completion of specific parts of the LIS.
- The Project Working Group reported to the PathWest LIS Project Executive (Project Executive) responsible for general management of the project.
- The Project Executive reported to the LIS Project Board, and the Chief Executive of PathWest.



**Figure 1: Original LIS project governance**

Source: PathWest

While the project structure was reasonable, there were critical failings in oversight, and project management:

- There was insufficient oversight and representation from the NMHS management as the accountable authority until July 2018. In particular, the LIS project did not report formally through existing NMHS governance structures. Nor was the NMHS formally represented on the Project Board or Project Executive. Although the head of PathWest met routinely with the head of the NMHS, there was no formal reporting on project progress, beyond contract expenditure.
- There was insufficient segregation of duties between the various project bodies. Four of the 5 members of the Project Executive were also on the Project Board, and 3 of the 5 were also on the Peak Authority, which was meant to assess scope issues. This weakened oversight, reporting and accountability.
- The project leaders and governance team lacked ICT project experience. These teams had senior financial staff and people who understood WA health's pathology needs. However, none of the key people had significant experience in delivering complex ICT projects.

There were also problems in project planning:

- There was not enough detail of the work required to complete the many modules in the new LIS. This reduced PathWest's view of progress of the project as a whole, and of the individual project modules.
- The plan did not include a consolidated project schedule, detailed project plans or critical path timelines to allow key stakeholders to measure and track project progress.

### **The 2018 financial review and 'reset'**

In January 2018, the DoH and the NMHS agreed to defer the go live date until September 2018. In June, when the project sponsor sought another extension, the Acting Chief Executive and the NMHS Board Chair raised concerns with the DoH, which were then raised in the Department's ICT Executive Board. This led to significant reviews and then major changes in project management and the budgeting processes. These have set the project on a better footing.

The DoH brought in external expertise to conduct 2 reviews of the LIS project in June 2018. One was a detailed financial analysis of the project. The other analysed project management against best practice.

The financial review looked at the resources used and costs incurred on the project from 1 July 2014 to 31 July 2018. It also tried to estimate the total cost to complete the project. Finally, it recommended improvements in project budgeting, financial management, accounting and reporting systems.

The financial review found serious issues with PathWest's financial management of the project. These meant it could not produce an accurate picture of the financial position. Their best estimate was that project spend at 21 August 2018 was \$17.2 million, including vendor costs of \$9.8 million and PathWest staff costs of \$4.7 million (Table 1).

The main reasons for the inability to track costs were vague budgeting, poor recording of project related activities performed by staff and the lack of a consistent and well-documented monthly review process. Our work confirmed that the reviewers could not track the cost of PathWest staff working on the project. Rather, they had to estimate cost based on a survey and interviews with operational divisions. Together, these formed the basis for the \$17.2 million estimate.

## The 2018 project management review and 'reset'

The other review analysed project management against good practice. It found that PathWest's management of the LIS project failed to meet good practice. The reviews made 26 recommendations detailing how to address these deficiencies and produce better management and more accurate reporting.

Following the reviews, the DoH and PathWest began to revise project management. It took until early 2019 to finalise the changes, which is reasonable given that the project did not stop during the 'reset'.

Following the changes, the project framework and the management information it provides now meet good practice. The key improvements are:

- There is a much stronger project framework with appropriate representation (Figure 2).
- In late 2018 an experienced ICT project director and project manager were engaged to run the project.
- There are now detailed progress flows for the many processes involved in completing the 6,000-plus processes in the pathology system. However, the team has not yet mapped all the processes from beginning to end, so some risks remain.
- Project reporting is now much more rigorous and comprehensive. It includes work updates, financial status, risk assessment, contract management and progress against implementation of the earlier reviews. This information is presented monthly to the Project Board. This Board was established in late 2018, is chaired by the PathWest Chief Executive and includes the project director, project manager and contracted external ICT project consultants.

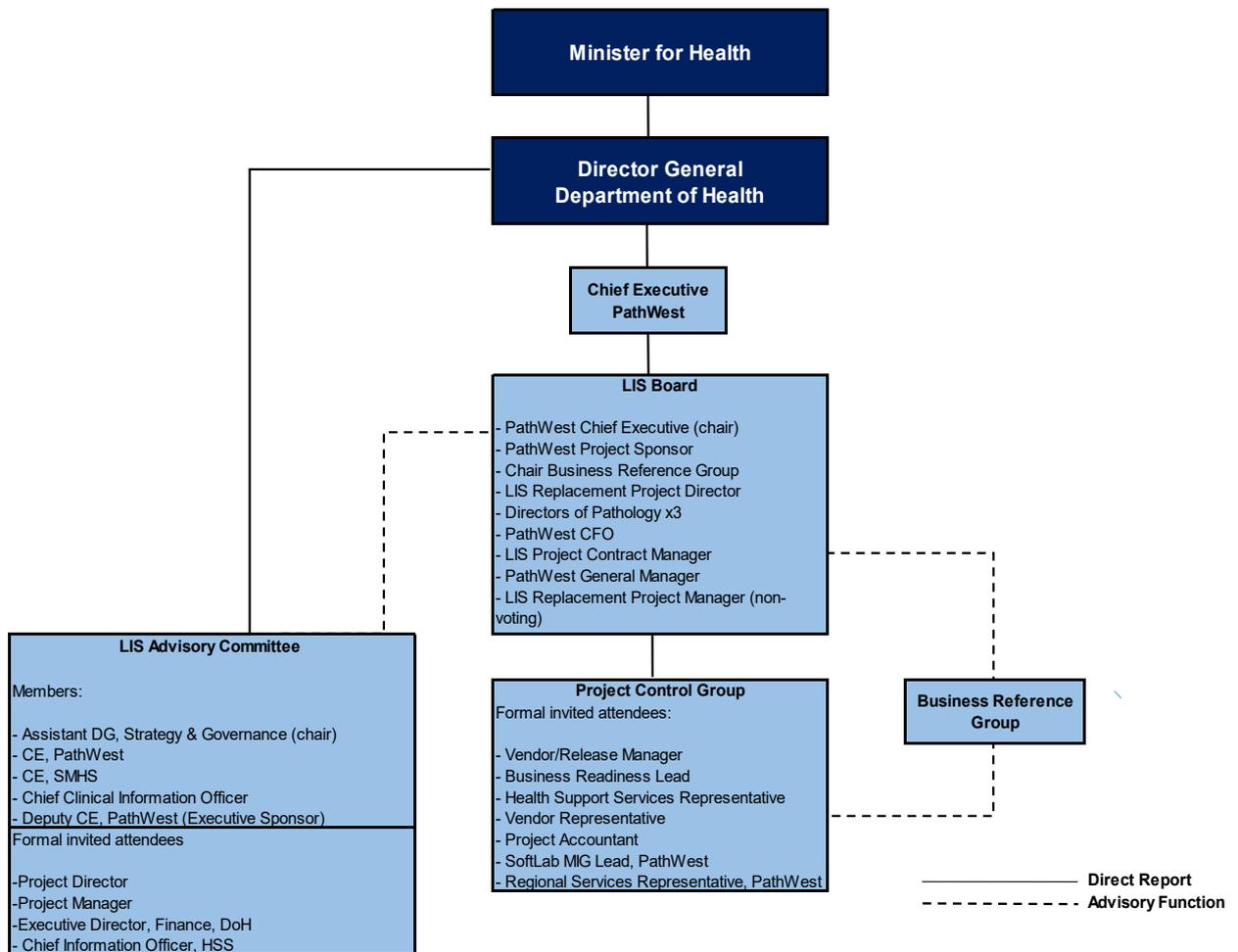


Figure 2: Current LIS project governance

Source: PathWest

## The DoH has not finalised a comprehensive ICT oversight framework that matches governance to risk

ICT is a vital part of the public health system, and often needs upgrading or replacement. This means there is a constant program of ICT projects across the sector. To operate effectively in its role as system manager, the DoH needs a comprehensive, flexible and adaptive ICT oversight framework that adjusts governance to the changing risks of both individual projects and the whole portfolio.

We found that the DoH's framework was not comprehensive, although it has begun planning improvements. The absence of a strong framework, together with the changes to relationships between the DoH and the HSPs, played a major role in PathWest's LIS project problems going unnoticed.

### Portfolio oversight

The DoH currently monitors performance of the 'strategic' ICT projects delivered across the sector. However, there are weaknesses in how this is done which limit its oversight in general and impacted on the LIS project in particular.

As noted above, the DoH's ICT Executive Board considers regular reports on project progress. An ICT Committee sits below this. These receive information from a subset of projects in the health sector, which it has deemed 'strategic'. The ICT Executive Board meets

monthly and reviews progress, cost and other information. While the reporting requirements and oversight of current whole-of-health projects are comprehensive, this was not the case when the LIS project began.

The DoH has recognised that its governance and assurance model needs improvement. In April 2019 it began revising its framework to provide appropriate assurance across the system. When the DoH finalises the detail supporting the framework it will be better placed to understand how ICT projects are performing collectively and individually. The main aspects to be finalised are:

- critical success criteria for state-wide objectives
- standards that projects and accountable authorities must meet in delivering projects
- performance monitoring by the DoH against the risk and standards
- a risk-based compliance regime
- an assurance system that reviews the balance of project risk and oversight.

### **Project guidance**

While there were shortcomings in how the NMHS provided oversight, the LIS project was not required to follow any particular project methodology or meet any particular project management standards. This was consistent with the autonomy of accountable authorities, but limited the DoH's oversight of the project. Supporting HSS to develop comprehensive guidance and methodologies would enhance the DoH's oversight capability, and decrease the likelihood of similar issues arising. Key to this will be mandating that HSPs meet the HSS project standards.

The HSS has established a Project Management Office (PMO), which sets some expectations for ICT projects and is accountable for the project and program management function at HSS, but can only mandate their use for projects it is responsible for. If other entities carry out projects, as in the case of the LIS project, it can provide advice.

The HSS is developing a comprehensive project management framework that sets out a standardised approach to project management for ICT projects. When complete, it aims to make its approach and its Program Delivery Office the first choice across the health sector. However, it has not yet produced a complete set of guidance and support material.

The framework is based on the idea of scalable and risk-based delivery, incorporating the PRINCE2 project management methodology. It will:

- detail the minimum standards project managers should apply while managing projects throughout their lifecycle
- give general guidance for tailoring the project governance and reporting to the individual project
- include project planning, delivery, reporting and assurance services.

The LIS project did not originally use the HSS framework or the PMO's expertise until the reset in 2018. At this time, a specialist ICT project manager was seconded from HSS to run the project until completion. As a result, the project is now being implemented in line with HSS and PRINCE2 principles.

## **ULTRA has continuing costs and technical issues**

ULTRA is a legacy system that continues to cost the state, and has several technical weaknesses. The delay in replacing it means PathWest must accept these risks for longer than planned.

PathWest is still paying to use the system, and now has a contract with the ULTRA provider until 31 December 2019. However, there is still uncertainty about closing out ULTRA.

ULTRA has several technical issues associated with old systems, which we have raised with PathWest and HSS. Some of these limit the entity's ability to monitor and assess issues with ULTRA, and with staff accessing the system. These are not new, and have not increased with time, but PathWest must still manage the risks until the new LIS takes over. PathWest understands these issues and is confident that these are manageable and will not be transferred to the new LIS.

The main practical issue with ULTRA is that it is not always available online. Between August 2016 and February 2019 ULTRA had 52 priority 1 and priority 2 incidents, resulting in the system being not fully functional for a total time of 88 hours. This included 23 occasions and 30 hours when the system was unavailable.

# Appendix 1: Detailed responses to recommendations 2, 3 and 4

## The DoH should:

2. develop and implement a standard risk assessment framework for all major WA health ICT projects by June 2020. This should include:
  - a. criteria for inclusion as a 'major' project, based on expected project cost, medical and health impacts of the system, reach of the system across the sector, maturity of project management and governance frameworks
  - b. criteria for periodic review of projects, including risk profile, key approval points and performance against cost and time targets
  - c. development and establishment of a system manager led ICT assurance function line with the DoH governance and assurance framework
  - d. align the terms of reference for the ICT Executive Board and the ICT Program Committee.

## The DoH response:

The *Health Services Act 2016* was established on 1 July 2016. It outlines a modern legal framework for clear roles, responsibilities and accountabilities at all levels of the WA health system including the establishment of the devolved governance model. The Act documents the functions of the System Manager to audit, inspect and investigate; and take remedial action when performance does not meet agreed standards. The outcome of these functions provides the System Manager with a level of assurance of whether objectives are met.

The DOH has commenced a detailed scoping framework to inform the establishment of a System Manager ICT assurance function. This has been developed with reference to the broader Department of Health's Governance and Assurance Conceptual Model (SGA Assurance Model).

The ICT assurance function for the System Manager will be aligned to the ICT lifecycle which is made up of the following phases:

- **Planning:** strategic planning and prioritisation of ICT investment;
- **Implementation:** procurement, delivery and implementation of ICT projects; and
- **Operations:** management of ICT service delivery including risk management, business continuity planning and succession planning.

The ICT assurance function (when implemented) will strengthen the level of oversight on future projects across HSPs. The ICT assurance function will include the development of a framework which provides the criteria for assessing projects based on total project cost, impact of the system, reach of the system, maturity of project management and governance mechanisms. It will also include criteria for periodic review of projects which takes into consideration a set of parameters including risk profile, phased gates and where project tolerances are exceeded.

This is in addition to the current role of the ICT Executive Board and the ICT Program Committee which reviews high risk and high value projects such as LIS at its monthly meetings as standing agenda items. The ICT Executive Board and ICT Program Committee receive monthly Portfolio Dashboards and Risk/Issues registers on ICT

projects which it discusses as a standing agenda item. Where the Committee identifies concerns with a project, an exception report is requested from the Project Manager.

The DoH is represented on project advisory committees for projects where it determines the project to be high risk and high value. The DoH either chairs or is a member on these committees.

**Implementation timeframe:**

The implementation timeframe for the establishment of the ICT assurance function is as follows:

- detailed scoping by June 2019
  - detailed current and future state by September 2019
  - model design and governance approvals by December 2019
  - development and implementation of policy, standards and assurance artefacts by June 2020
  - pilot by June 2020.
3. by June 2020, establish clear expectations for project management guidance and support for all ICT projects in the public health system. This should include:
- a. agreeing and formalising the role of HSS in providing support and advice on ICT project management standards, methodologies, templates, tools and governance frameworks for the WA health system.
  - b. setting clear standards and expectations for all ICT projects in the health sector through Health Service Provider agreements.
  - c. support the HSS to produce comprehensive guidance for health ICT projects, reflecting project size, resourcing, risk and sector coverage.

**The DoH response:**

The DOH will work with and support HSS in establishing project management guidance including common standards, methodologies, templates, tools and governance frameworks to ensure successful management of ICT projects across the WA health system.

Section 46 of the *Health Services Act 2016* requires the Department CEO and Health Service Providers to enter into a service agreement. The agreement includes the requirement for the service agreement to state any matter the Department CEO considers relevant to the provision of services by the Health Service Provider. The DOH has set clear standards and expectations for the Medical Imaging Replacement Project (MIRP) and LIS project in Health Service Provider service agreements for HSS and PathWest in 2018-19. The 2019-20 service agreements will be expanded to include clear standards and expectations for all Health Service Providers responsible for specified, high risk and high value ICT projects.

**Implementation timeframe:**

The DOH will work with and support HSS commencing immediately.

The 2019-20 service agreements which will be issued prior to 1 July 2019 will be expanded to include clear standards and expectations for all Health Service Providers responsible for specified, high risk and high value ICT projects.

## The HSS should by June 2020:

4. finalise and implement a comprehensive suite of ICT project management expectations, including guidance and support processes. These should be available across the health sector, and applicable to different project size, complexity and risk.

### HSS response:

Agreed. See Appendix 1 for detailed response. HSS currently has a Project Management methodology with supporting templates and staff that are available to provide guidance and advice to the HSPs. This information is currently available via the HSS Intranet Portal, and the HSS PDO (Program Delivery Office) can be contacted if guidance is required.

In relation to providing tailored methodologies, templates and governance for projects of varying size, complexity and risk, HSS is currently taking action through the establishment of new functions and capabilities designed to improve program and project capability across HSS.

This includes:

**A Program Delivery Office** - created within the HSS ICT Business Unit designed to oversee the:

- Establishment and oversight of ICT program management across the portfolio of HSS managed and run projects, on behalf of the WA health system.
- Establishment and oversight of appropriate delivery assurance across the ICT portfolio.
- Oversight of the planning and scheduling of projects and initiatives from inception to completion, including the setting of milestones and key integration and dependency points between projects and programs.
- Accountability for ensuring each program, project or initiative is delivered per its defined scope, cost and schedule, aligned to the defined requirements.
- Capability development of program and project management resources to safeguard the delivery of agreed programs, projects and/or initiatives on behalf of the WA health system.

**A new Enterprise Portfolio Management Office (EPMO)** - created within the HSS Transformation and Strategy Business Unit to:

- Develop and maintain an effective portfolio management function for HSS owned initiatives, including a defined portfolio, program and project framework that provides oversight, assurance and executive visibility of major projects.
- Define, implement and monitor the project management methodology quality assurance reviews for compliance across HSS projects.
- Implement strategies that drive performance improvement in project and program management including delivery of high-quality project management advice, training and support.

These improvement initiatives are being progressed as part of the HSS Transformation program, and implementation is currently being executed over the next 12-18 months.

It is expected that HSS will make these products and services available to the health sector through our Intranet Portal and have HSS staff available to provide guidance on the use of tool set.

HSS intends to finalise and implement the above well before June 2020 and we expect to take an Agile and Release approach to the rollout of this initiative, which will allow deliverables to be available as soon as possible. In the meantime, on a case by case basis, HSS PDO/EPMO will assess new projects (HSS owned or managed on behalf of customers), and apply a pragmatic methodology in relation to size, complexity and risk. This will allow us to progress with all size projects today, while the above-mentioned initiatives are formalised and implemented.

In relation to the implementation of support processes, HSS has capacity to support the projects that HSS owns or manages on behalf of its customers (the HSPs), and any spare capacity can go towards supporting others. This is however, dependent on the demands and requirements from the other I-ISP's, and may require increasing HSS' capacity to service all customer's needs.

The HSS EPMO/PDO areas are working collaboratively with the Department of Health on their Assurance Capability Program, to ensure appropriate alignment and to share information for both parties to take benefit from.

**Implementation timeframe:**

June 2020.

# Appendix 2: Project management better practice principles

There are many approaches and methodologies that provide effective project management. These commonly accepted principles of better practice draw on the latest literature and government and non-government frameworks.

Principles	Our expectations
Business objective and scope	There should be clear and documented definition of: <ul style="list-style-type: none"> <li>• What business need the project is designed to meet</li> <li>• What business problem the project will resolve</li> <li>• Project risks and how project success will be measured</li> <li>• Any scope limitations of the project (to limit project creep)</li> </ul>
Accountability and responsibility	Accountability and governance arrangements should be clear from the beginning: <ul style="list-style-type: none"> <li>• There should be single project owner/sponsor</li> <li>• Project governance structure must be clearly defined, including boards, committees and their make up and proportionate to risks</li> <li>• Responsibilities and powers of project team and management must be clearly defined</li> <li>• Project managers need authority to control the project</li> <li>• Sponsor and delivery team are responsible for obtaining project funding</li> </ul>
Planning	Projects should be properly planned before work begins <ul style="list-style-type: none"> <li>• Initial estimates should be converted into detailed delivery plans</li> <li>• Plans should be revised periodically</li> <li>• Project risks should be identified and managed</li> <li>• Procurement must be planned and carried out in line with any entity rules</li> <li>• Current project cost must be known at all times</li> <li>• Project should adopt an accepted methodology throughout</li> </ul>
Resourcing	Projects need appropriate funding and staffing <ul style="list-style-type: none"> <li>• Project should be adequately funded</li> <li>• Project manager and team should be adequately qualified</li> <li>• Project team should have appropriate skills</li> <li>• Project manager should manage team and stakeholder relationships well</li> </ul>
Monitoring and reporting	Managers should track delivery status and report effectively to oversight bodies <ul style="list-style-type: none"> <li>• Project costs and progress should be tracked</li> <li>• Cost and progress should be reported routinely to oversight bodies</li> <li>• Project delays or issues should be reported as they arise</li> <li>• Changes to the project scope should be managed and controlled</li> <li>• Action should be taken if project deviates from plan</li> <li>• Oversight bodies should seek assurance on project status, based on risk, cost, complexity and business impact</li> </ul>
Learning	<ul style="list-style-type: none"> <li>• Organisations should review project management and delivery to improve processes and frameworks</li> </ul>

Source: OAG



## Auditor General's Reports

Report number	Reports	Date tabled
24	Verifying Employee Identity and Credentials	19 June 2019
23	Improving Aboriginal Children's Ear Health	12 June 2019
22	Opinions on Ministerial Notifications	5 June 2019
21	Engaging Consultants to Provide Strategic Advice	5 June 2019
20	Information Systems Audit Report 2019	15 May 2019
19	Audit Results Report – Annual 2018 Financial Audits	15 May 2019
18	Firearm Controls	15 May 2019
17	Records Management in Local Government	9 April 2019
16	Management of Supplier Master Files	7 March 2019
15	Audit Results Report Annual 2017-18 Financial Audits of Local Government Entities	7 March 2019
14	Opinions on Ministerial Notifications	13 February 2019
13	Opinion on Ministerial Notification	23 January 2019
12	Managing Disruptive Behaviour in Public Housing	20 December 2018
11	Opinions on Ministerial Notifications	20 December 2018
10	Opinions on Ministerial Notifications	18 December 2018
9	Treatment Services for People with Methamphetamine Dependence	18 December 2018
8	Opinions on Ministerial Notifications	10 December 2018
7	Audit Results Report – Annual 2017-18 Financial Audits of State Government Entities	8 November 2018
6	Opinion on Ministerial Notification	31 October 2018
5	Local Government Procurement	11 October 2018
4	Opinions on Ministerial Notifications	30 August 2018
3	Implementation of the GovNext-ICT Program	30 August 2018
2	Young People Leaving Care	22 August 2018
1	Information Systems Audit Report 2018	21 August 2018

Office of the Auditor General  
Western Australia

7<sup>th</sup> Floor Albert Facey House  
469 Wellington Street, Perth

Mail to:  
Perth BC, PO Box 8489  
PERTH WA 6849

T: 08 6557 7500

F: 08 6557 7600

E: [info@audit.wa.gov.au](mailto:info@audit.wa.gov.au)

W: [www.audit.wa.gov.au](http://www.audit.wa.gov.au)



Follow us on Twitter [@OAG\\_WA](https://twitter.com/OAG_WA)



Download QR Code Scanner app and scan code to access more information about our Office