

HealthSMART

Victoria's Whole-of-health ICT Strategy



A Victorian
Government
initiative



What is HealthSMART?

HealthSMART is the program implementing Victoria's **\$360 million** whole-of-health information and communication technology (ICT) strategy to **modernise** and **replace ICT systems** throughout the Victorian Public Healthcare Sector. The ICT improvements provide healthcare agencies with the tools required to meet the growing healthcare demands expected in the future.

The context:

In Victoria there are **14 metropolitan health services** (35 hospitals), **five rural health alliances** (77 hospitals), and more than **800** Victorian Government funded community-based health agencies (including ambulance, aged care, community health centres, mental health).

Risks and issues facing the Victorian Public Health Sector include:

- A clinical **workforce shortage**, which is expected to increase over the next ten years.
- An increased **demand for services** – over a million Victorians were admitted to hospital in 2007, while hundreds of thousands more visit community and primary health services on a regular basis.

Pressure on the public health system will continue to grow as we face an **ageing population** and increased incidence of **chronic disease**.

- **Changing expectations** in healthcare delivery. In an increasingly consumer-oriented and

technology-dependent society where everything from personal banking to grocery shopping can be done via the Internet – the community expects more personalised and integrated healthcare.

HealthSMART is providing the tools that will assist agencies to:

- Increase the **quality** and **safety** of care and improve health outcomes
- Develop more **consumer-oriented** healthcare
- Increase the **efficiency** of healthcare provision
- Improve the **management** and utilisation of **resources**
- **Attract, retain** and **support** a highly-skilled workforce through the strategic application of information and communications technologies.

HealthSMART is achieving these outcomes by:

- Replacing obsolete, unsupported core applications with capable, industry-standard products
- Introducing new systems capable of supporting the transformation of healthcare
- Refreshing and developing the ICT infrastructure
- Delivering ICT services through a shared service model featuring the use of core infrastructure across a sophisticated telecommunications network.

HealthSMART's guiding principles:

Applications & technology

- Cost of building, upgrading and customising technology to be reduced by appropriate standardisation
- Applications and data to be hosted centrally in a shared services data centre
- Shared infrastructure designed to address concerns about the security of data.

Implementation

- HealthSMART managed as a single program by the Office of Health Information Systems (OHIS) within the Department of Human Services
- Agencies follow OHIS program guidelines when managing ICT projects, including contributing agency funds
- Government financial support given to healthcare agencies using HealthSMART's strategic principles
- Existing government arrangements and collaborations used to maximise purchasing power
- Agencies responsible for ongoing support and maintenance costs
- This approach is intended to include, as much as possible, ICT investments to date and to target the removal of the significant risks and exposures that have been identified in the existing ICT environment.

How is HealthSMART being delivered?

The HealthSMART program (the Program) is responsible for managing processes to select applications, configuring these applications to reflect state-wide requirements ('state-wide footprint') and then implementing these applications into participating agencies using the state-wide footprint as a base.

Additionally, the Program is responsible for establishing and managing the shared ICT infrastructure that is required to support these applications and agencies use of them.

The portfolios that were established to manage the scope of work required were:

- **The Resource Management Systems portfolio, including:**
 - the finance and material management systems (FMIS) project
 - the human resource management systems (HRMS) project
- **The Technical Services portfolio, including:**
 - HealthSMART Services
 - Integration Services

- **The Patient & Client Management Systems portfolio, including:**

- the integrated patient & client management systems project
- the client management systems project.

- **The Clinical Systems portfolio.**

A few changes to the functional scope of the Program have occurred throughout its life, the major ones being:

- Addition of a Picture Archive and Communications (PACS) project to provide health services with the capacity to manage their imaging services electronically and remove the need to print film.
- A payroll and human resource reporting project (HRMS – Payroll) was established, in addition to the HRMS – Rostering project.
- A Rural & Regional FMIS project to deploy FMIS functionality across all Rural Alliances.

As at November 2008, significant progress has been made across the Program and three projects (HRMS, FMIS and PACS) have been completed and closed. The technical services establishment is complete and further growth will be incremental to support future agency implementations. Remaining activity is focussed on implementing the Patient & Client Management Systems applications and the Clinical Systems application.

Completed Projects

Resource Management Systems

Chris21 - a common solution for health services to manage their payroll, and reporting. 50,000 staff across the healthcare sector are now being paid through this system.

Chris21 is **live at**:

- Austin Health
- Grampians Health ICT Alliance
- St Vincent's Hospital
- Southern Health
- Royal Women's Hospital
- Royal Children's Hospital
- South West Health Alliance (Warrnambool)
- Pilot implementation is in progress at one site within the Gippsland Health Alliance. Go-live for this site has been deferred until July 2009.

Key Benefit:

- *Orderly transition to a new provider together with proposed enhanced HRMS functionality, including integration with the rostering application.*

Kronos – a rostering solution to assist agencies create and maintain rosters electronically.

Kronos is **live at**:

- Austin Health
- Gippsland Health Alliance

Key Benefit:

- *Reduces the need for unplanned overtime and reliance on contract staff and enables those on duty to provide better, more attentive care by:*
 - *identifying vacant shifts, and*
 - *coordinating rosters across departments.*

The Oracle eBusiness suite – a new generation system to support health finance and materials management processes. 8,000 staff across the health sector are currently utilising the system.

Oracle is **live at**:

- Eastern Health
- Peninsula Health
- Bendigo Health
- Southern Health
- Peter MacCallum Cancer Institute
- Northern Health
- Western Health
- Melbourne Health

Key Benefits

- *Administrative efficiency improved as staff can now manage purchase requisitions online rather than having to rely on paper forms.*
- *Better managed supplies (for example bandages and disposable surgical instruments) ensures patient procedures are not delayed because of missing equipment.*

While the Oracle project was wound up in May 2008, the project's success led rural health alliances to request it be implemented at the five rural health alliances. The Finance and Material Management Systems Rural and Regional Project team is currently coordinating this process.

The Resource Management Systems portfolio was wound up in July 2008. Victorian public healthcare agencies are able to purchase the products and associated services.

Picture Archive and Communications System

Synapse – a picture archive and communication system (PACS) designed to support the delivery of diagnostic imaging services without the need to rely on film.

PACS is **live at**:

- Royal Melbourne Hospital
- Barwon Health
- Royal Children's Hospital
- Western Health
- Bendigo Health
- Peninsula Health

Key Benefits:

- *Turnaround times from the radiologist to the clinician have been greatly reduced.*
- *Expenditure on film and other media related items (such as printers, chemicals, stationery and carry-bags) has decreased significantly.*

The current PACS portfolio was wound up in September 2008 after coordinating successful implementation at the above agencies. Expansion of the PACS project to other agencies is currently under consideration by the Department of Human Services.

Technical Services

HealthSMART Services delivers the technology and associated support for HealthSMART applications.

HealthSMART Services:

- Supports core applications, including resource management systems, patient and client management systems and clinical systems
- Provides technical infrastructure, network services and technical and application support
- Hosts a centralised infrastructure through two linked data centres
- Provides continuous access to a production environment to support the core applications, associated technology infrastructure and communications networks
- Uses the Whole of Victorian Government data centres.

HealthSMART Services is supporting 20 agencies and over 20,000 users of the patient and client management systems, the human resource management systems and the finance and material management systems across Victoria.

The HealthSMART Design Authority and Integration Services delivers the enterprise application integration (EAI) solution and associated services to integrate HealthSMART applications. Integration Services also assists health agencies to enable this capability in their environment. The EAI enables applications to share data, maximising functionality and business continuity across HealthSMART applications and relevant health service applications.

Integration Services is responsible for:

- Delivering standards based interoperability across all HealthSMART applications
- Defining messaging standards for Victorian health applications
- Facilitating a higher level of integration knowledge and associated quality processes in the Victorian health sector.



Projects in Development

Patient and Client Management Systems

i.Patient Manager – an integrated patient and client management system supporting the administration and management of patients and clients throughout their care in hospitals and/or community health settings.

i.Patient Manager is **live at**:

- Northern Health
- Peninsula Health
- Gippsland Health Alliance
- Royal Women’s Hospital
- Mercy Health

Over 13,000 users across these agencies currently access i.Patient Manager.

Western Health, Melbourne Health, Grampians Health ICT Alliance, Southern Health, Loddon Mallee Health Alliance and Eastern Health have also signed on to implement the system. Ten agencies are expected to be live with i.Patient Manager by end 2009 with Eastern Health expected to go-live early 2010.

TrakCARE – a client management system supporting the administration of patients and clients at standalone community health services (CHS) in metro areas.

TrakCARE is **live at**:

- Western Regional CHS
- Bendigo CHS
- Inner South CHS
- MonashLink CHS
- ISIS Primary Care
- Darebin CHS
- Nillumbik CHS
- Banyule CHS
- Plenty Valley CHS
- Knox CHS
- Whitehorse CHS

Over 2,000 users across these agencies currently access TrakCARE.

22 out of 23 standalone metro health agencies will be live with TrakCARE by the end of 2009.

Key Benefits:

- *Staff now have instant access to patient records.*
- *Staff are better informed about a patient's medical history with automatic alerts, for example, notifying of a patient's allergy to medication or history of chronic illness.*
- *Care is better coordinated across hospital departments and between services.*
- *Staff are better informed about a patient's medical history with automatic alerts notifying a patient's allergy to medication, history of chronic illness etc.*
- *Updating to TrakCARE and i.Patient Manager has allowed health agencies to 'cleanse' their patient/client records - picking up whether a record is incomplete or if there are discrepancies across records.*



Clinical Systems

Millennium – a Clinical Systems solution to support clinicians in their day-to-day care of patients by providing electronic access to medical records and the capability for prescribing, drug administration charting, investigation ordering and reviewing.

Eastern Health and the Royal Victorian Eye and Ear Hospital (RVEEH) became the lead agencies for the project in September 2008.

The scope of the current project includes implementation across ten agencies: Eastern Health, RVEEH, Austin Health, Gippsland Health ICT Alliance, Northern Health, Peninsula Health, Royal Women's Hospital, Loddon Mallee Health Alliance, Melbourne Health and Western Health. The Clinical Systems project is scheduled for completion by end 2010.

HealthSMART application vendors:

- The payroll solution (Chris21) provided by Frontier Software
- The rostering solution provided by Kronos Australia Pty Ltd
- The finance and material management system provided by Oracle
- The picture archive and communications system (Synapse) provided by FUJIFILM Australia
- The client management system (TrakCARE) provided by Intersystems
- The integrated patient and client management system (i.Patient Manager) provided by iSOFT, and
- The Clinical System solution (Millennium) provided by the Cerner Corporation.

Technical services vendors:

- Managed services provided by Fujitsu
- Storage services provided by Hitachi
- Solaris support (unix based operating system) provided by Sun Microsystems
- Primary data centre services provided by HP
- Alternative data centre services provided by IBM

For more information visit
www.health.vic.gov.au/healthsmart

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