

# A Blueprint for eHealth in NSW



Health



New South Wales is leading Australia with its state-wide Medical Imaging (MI) program. No other MI program in any other state or territory has connected so many hospitals and disparate systems and made patients' information available in a single place so quickly and so easily for doctors.

The jewel in the crown of MI is the **Enterprise Imaging Repository (EIR)**, which won a coveted NSW Premier's Public Service Award for 2013. The implementation of the EIR means that irrespective of which public hospital a patient visits, their treating clinicians will have instant access to their current and previous radiology images and reports. This not only provides clinicians with a more comprehensive picture of the patient's condition and medical history, but assists them to make a faster and more accurate diagnosis and treatment plan, leading to better patient outcomes.

Having started in 2008, the state-wide roll-out of PACS/RIS will be complete by June 2014 and is part of the reason why, compared with other Australian states, NSW is way ahead of the curve. PACS/RIS is a vital stepping stone to providing universal access to images across the state.

PACS is the **Picture Archiving Communication System**, where digitised images are captured, stored and can be distributed anywhere within the hospital (or nearby hospitals) at the click of a button – removing the need for film to be printed.

RIS is the **Radiology Information System** which supports all key areas in the Radiology Department such as ordering exams, coordinating appointments, registering the patient, recording details of the exam and reporting.

PACS/RIS has revolutionised the operations of radiology departments across NSW, delivering quick and easy LHD-wide access to MI studies across District boundaries with integration to eMR, including electronic orders and results. For years, hospitals had faced a variety of radiology-related challenges, such as frequent instances of "lost" films, an ever-increasing demand for services, and growing service disparities between rural and urban areas.

PACS/RIS addresses these challenges head on via a single integrated solution which allows images to be accessed quickly and easily.

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# Foreword

**Back in April 2010, as Shadow Health Minister I told a gathering of technology specialists I believed Information and Communication Technology will play a crucial role in improving the healthcare of the people of New South Wales.**

This eHealth Blueprint is a sign not only of how far we've come since then in creating a comprehensive eHealth system in NSW, but sets out the next crucial steps we need to take if we want to keep harnessing technology to improve the quality, delivery, efficiency and safety of healthcare for patients.

ICT led investments in clinical care, business services and smart infrastructure are already reshaping the way healthcare is being delivered in NSW, giving us the most advanced eHealth system in the country. For clinicians this means streamlined medical care through always – on access to eHealth solutions like electronic patient records and digital imaging, while for patients it's meant better coordination of care no matter where they present or live, as well as more control over their own health information and treatment.

But as demand shifts from acute to chronic care – and from hospitals to communities – we need to move our ambitious eHealth agenda forward so that technology continues to advance healthcare delivery and connectivity.

One of the most crucial first steps going forward will be the creation of eHealth NSW. eHealth NSW will lead state-wide eHealth strategy and project delivery, and will be supported through strengthened governance arrangements that will include a new eHealth Executive Council chaired by the Director General of NSW Health, and a federated-decision making model with Local Health Districts that promotes local partnership and innovation.

We also plan to refresh our vision for eHealth in NSW with a new eHealth Strategic Plan. It will steer the \$400 million we plan to invest over the next five years building eHealth capacity across the state through both a consolidation and expansion of existing eHealth programs, and new, cutting edge initiatives.

In clinical and patient care this means advanced clinical information systems, integrated community and outpatient electronic records, sophisticated, high-tech functionality for Intensive Care and intelligent prescribing systems. From a business perspective we'll invest in smarter systems to better monitor and manage the state's health assets, match clinician skills to patient needs, and identify and notify system risks far more accurately.

No matter how sophisticated or complex technology becomes however, the eHealth imperative will always remain the care of patients. Articulating the relationship between technology and better healthcare is crucial, while demonstrating the transparency and security of all eHealth infrastructure and initiatives remains one of our most important responsibilities.

We also now know how rapidly technology changes. Robotics, Big Data, cloud computing, 3D printing, Artificial Intelligence and Augmented Reality, to name a few emerging technologies, are rapidly re-inventing contemporary healthcare. Seamlessly connected consumers accessing health information at home or on an array of mobile devices not only means greater control and knowledge, but higher expectations about how their health is managed.

Being ready and able to identify and deliver the very best technology for the very best care is both an exciting opportunity and one of our biggest challenges. I believe this eHealth Blueprint will allow NSW to not only deliver smarter, safer healthcare, but give us the capacity, flexibility and expertise to embrace innovative technology for the benefit of patients long into the future.

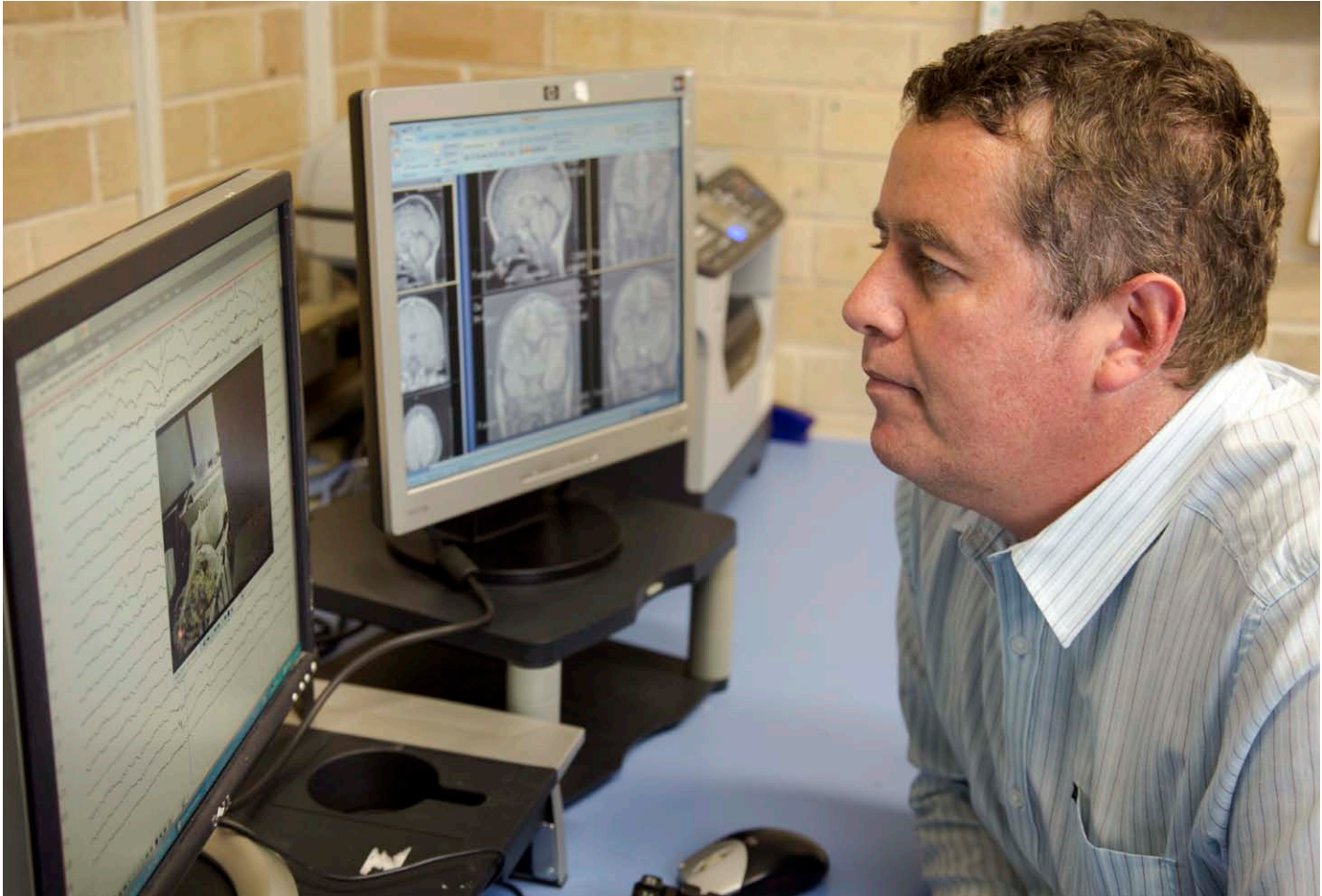
I would like to thank the Director General, Professor Michael Legg and the eHealth Governance Review team, and all of the health staff who have contributed to the development of this Blueprint.

**Hon Jillian Skinner MP**

*Minister for Health*

*Minister for Medical Research*

# Executive summary



NSW Health has already made major progress in laying the building blocks for a comprehensive eHealth system. The NSW ICT Strategic Plan 2006-2011 was the basis for significant technology led investments in clinical management, corporate efficiencies and smart infrastructure, and remains relevant as its core initiatives continue to be rolled out.

Following the release of the Future Arrangements for Governance of NSW Health in 2011 – which recommended a whole of Health approach to eHealth – the Director General established an eHealth Committee chaired by Professor Michael Legg to undertake a broad review of eHealth in NSW and make proposals for the future. An independent report by consultants KPMG commissioned by the eHealth Committee, provided

a series of recommendations on a possible eHealth roadmap for NSW.

The KPMG report gave high marks to the Strategic Plan's implementation and identified some key themes that need to be met in taking eHealth forward over the next five years. These included the need for a dedicated approach to eHealth through adopting a federated, collaborative governance arrangement across NSW Health, improved stakeholder engagement, centralised/localised planning balance, broader capacity building, and statewide ICT integration.

Endorsed by the eHealth Committee, these recommendations are now the basis for this eHealth NSW Blueprint for the next five years. NSW Health will facilitate its implementation, including:

## Establishing eHealth NSW and introducing federated governance arrangements

Achieving a contemporary, responsive and world-class eHealth system in NSW requires new forms of governance, planning and enterprise architecture, including:

- **Establishing eHealth NSW** as a dedicated organisation within NSW Health to guide eHealth planning, strategy, program implementation and operations.
- **Establishing an eHealth Executive Council** chaired by the Director General of NSW Health with broad membership to provide statewide strategic direction and support to eHealth NSW, particularly in the coordinated rollout of core programs across health services.
- **Appointing a Chief Clinical Information Officer (CCIO)** to engage with clinicians to align informatics and clinical practice across NSW Health.
- **Establishing an eHealth Architecture Executive** with representation from Local Health Districts and eHealth users to provide statewide technical direction to inform decision making on eHealth investments.



- **Adopting a federated governance approach for eHealth NSW** particularly in developing an approach that supports the statewide selection and implementation of integrated, core programs while enabling local solutions and innovation in eHealth.
- **Involving Local Health Districts** as active partners in eHealth planning and program roll-out.

## Refreshing our eHealth vision

The *NSW eHealth Strategic Plan 2006-2011* has served us well, but it is now time to develop a new eHealth Strategic Plan to:

- **Guide ICT investment** for the next five years for new statewide eHealth initiatives.
- **Consolidate and expand** existing eHealth programs.
- **Outline new arrangements** in governance, privacy, and capacity-building.
- **Articulate eHealth benefits** for consumers and clinicians.
- **Measure and report** our eHealth performance.

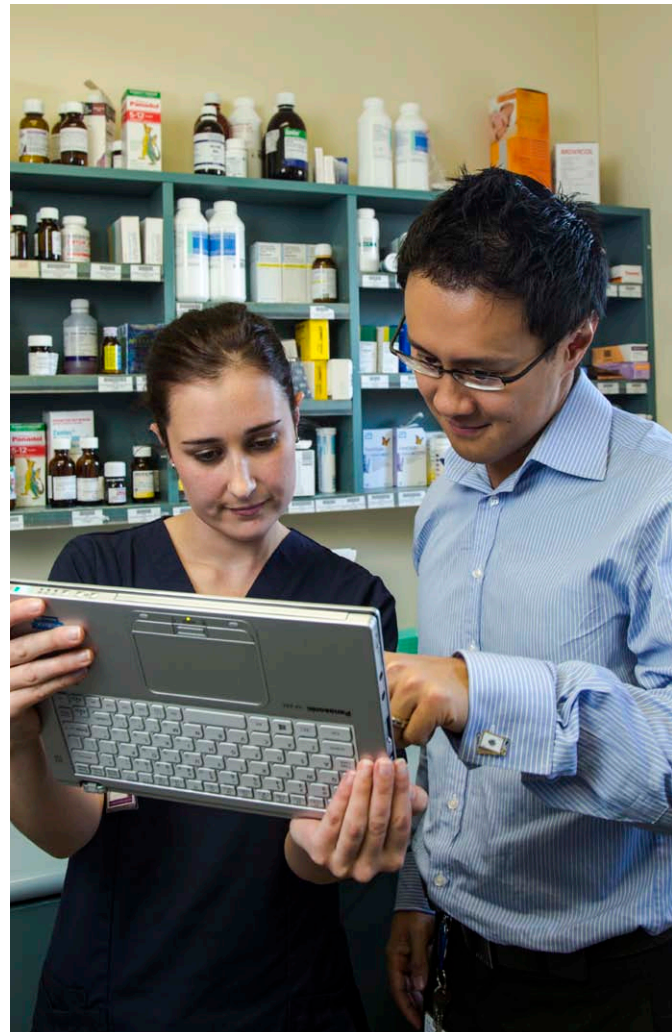
**Developing a rural eHealth strategy to** improve eHealth delivery to rural and remote areas is a core part of our future thinking to ensure:

- strengthened governance and support models;
- integrated program planning across clinical, corporate and infrastructure programs;
- the six rural Local Health Districts working collectively to consider and implement solutions.

## Building eHealth capacity and connectivity

NSW has already built extensive eHealth building blocks, but over the next five years we will need to both consolidate those achievements while introducing new capacity, including:

- **Continue building eHealth capacity and connectivity** through the roll out of existing and new statewide eHealth initiatives in clinical care, corporate services and infrastructure.
- **New clinical care initiatives** will include the introduction of:
  - Community Health and Outpatient Care (CHOC) to integrate clinical and electronic record systems;
  - Electronic Medical Record Phase 2 (eMR2) to upgrade functionality and reach of the system while adding voice recognition capacity;
  - Electronic Medication Management (eMM) to improve the accuracy and scope of intelligent prescription systems;
  - Intensive Care Clinical Information System (ICCIS) to bring a suite of online and digital systems for improved integration.
- **New business solutions** will include the introduction of:
  - Health Roster to more effectively match staff skills to patient needs;
  - Incident Information Management System (IIMS) to better track, record and report clinical incidents;
  - Asset and Facilities Management Performance Improvement Program (AFMPIP) to more effectively assess and manage health assets.
- **Infrastructure upgrades** will include
  - Boosted IT capacity to ensure equity in access to high speed broadband for all Local Health Districts;
  - Data Centre Reform to provide efficient and reliable IT infrastructure support.



Our eHealth agenda does face challenges. Despite progress we know that the Local Health Districts still all operate on different IT systems and have differing eHealth capacities. Clinician, manager and patient engagement on eHealth has also been uneven and that has meant our investments have not always met the functional needs of our users or fully realised the benefits.

This Blueprint for eHealth in NSW is designed to not only address these challenges, but build an integrated eHealth system through the right structures, investments and strategies.

# What is eHealth?

**eHealth is now generally understood to mean the use of a broad range of information and communication technologies like broadband connectivity, digital networking or smart software to help drive improvements in health and medical care for individuals and communities.**

To date NSW Health has been applying technology to underpin changes across three core areas of activity – clinical care, corporate services and infrastructure.

## Clinical care

eHealth clinical applications help doctors, nurses, allied health clinicians and managers provide safe, quality care, and enable patients to control their own healthcare, including:

- electronic medical records (eMRs) and associated computerised decision support systems which can be used to connect services and providers across different settings
- digital medical image archiving and communication systems (PACS) and Radiology Information Systems (RIS)
- electronic prescribing and associated computerised order entry systems (CPOE)
- Patient Administration Systems (PAS)
- Personally Controlled Electronic Health Records (PCEHR) which are held by the patient and have the potential to connect primary, community and acute care.

## Corporate

eHealth corporate, or business, applications help managers and clinicians to plan and run our health system effectively and efficiently and include:



- data collection and analytics to support performance management, planning and decision making
- billing and related financial management systems
- workforce management systems such as recruitment, payroll, and rostering systems
- support systems for services like food and linen as well as for ordering and warehousing.

## Infrastructure

eHealth infrastructure includes the hardware, software, facilities and service components that support and enable eHealth, including:

- Networks, Data Centres and Servers and other assets that support clinical and corporate applications
- Capabilities to support service desks, training and 24-7 operations
- End user devices, such as smart phones, tablets, PCs and video collaboration equipment.



# Benefits of investing in eHealth

**Investments in eHealth have the potential to deliver better and safer clinical care for patients no matter where they live, while also driving improved and sustainable network efficiencies through:**

## Access and connectivity

eHealth solutions can create connected networks where healthcare and information can be delivered online at any time or anywhere in the state.

Electronic records are a crucial part of this new approach along with our PACS/RIS system – or on line medical imaging – which is already in place. For clinicians this means the ability to manage and monitor patient data flexibly from multiple facilities, while for patients it reduces multiple form filling and duplication of tests, cutting barriers to care.

Connectivity also boosts the capacity to communicate, monitor and manage healthcare remotely as part of the increasing use of telehealth that's already in use in many places in NSW. Seamlessly networked clinicians in multiple facilities can provide more informed care, while patients living in rural and remote locations – or for those who are house bound – care can be delivered flexibly and consistently.



## Quality, safe care

eHealth solutions help clinicians make the best possible care decisions for their patients.

Digital records give clinicians access to patient information in one place, allowing them to order and receive test results, view medical imaging or radiology reports rapidly. Electronic records not only mean single data entry, but customisation of visual information – such as graphs and charts – in tandem with auditory or online alerts. Smart decision-making tools like ePrescribing not only reduce errors, but help to identify and act on practice variations.

## Value for money

eHealth solutions can deliver value for money in the way we organise and deliver services.

Initiatives like electronic medical records – or eMRs – capture information in a legible way that's capable of being shared with others—often simultaneously. Voice recognition systems – which form part of our eMR system – also make

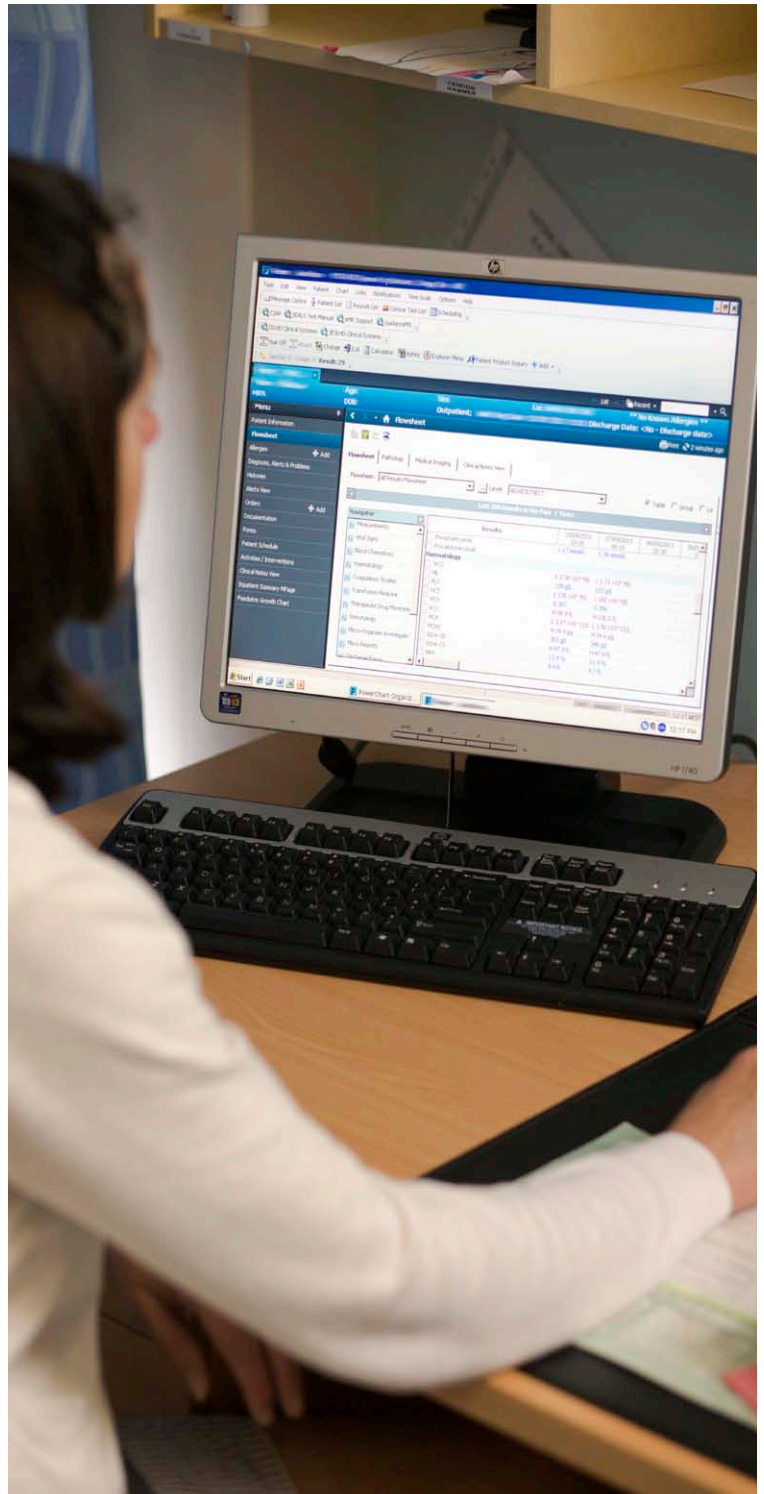
it quicker to enter important information, freeing clinicians to spend more time focused on care delivery.

eHealth business solutions also help us organise and deliver services more effectively, whether it be capturing system wide data to better plan and monitor service provision, effectively maintain our facilities, reduce waste, or eliminate costly, unnecessary stockpiles of medical equipment and supplies.

## Empowerment and partnerships in care

eHealth connects clinicians and patients to health and medical resources, and helps create opportunities for clinicians and patients to work together in a shared decision making model.

For clinicians access to informed scientific and medical information – as well as networks of specialists – no matter where they may be working brings greater expertise and safety to healthcare. For patients access to their own medical records, as well as web based information and support networks online, improves knowledge, confidence and expectations about their own health and medical care.



# eHealth – a NSW Health snapshot

## **NSW leads the country in harnessing eHealth solutions to improve patient care and value for money in the delivery of healthcare services.**

Across the NSW Health network – including the centralised support provided by HealthShare NSW and the decentralised efforts of Local Health Districts – around 1,300 staff in 1,200 health locations plan and deliver eHealth services and applications, manage 3,000 servers and 20 data centres, and support the use of 75,000 desktops, laptops and tablets.

## **Clinical care**

Putting patient care first, NSW Health is rolling out a number of critical clinical eHealth systems:

### **Electronic Medical Records or eMRs**

eMRs allow for flexible digital input, storage, display, retrieval, printing and sharing of patient information across multiple facilities and for multiple users.

In NSW 142 of our hospitals – or 80% of our bed base – provide clinicians with eMR functionality, allowing them to order tests, schedule surgery and prepare electronic discharge summaries. Every day over 23,000 clinicians log on and open 212,000 charts, order 136,000 tests and book 17,000 appointments electronically.

### **Medical Imaging – Picture Archiving Communication System (PACS), Radiology Information Systems (RIS) and Enterprise Imaging Repository (EIR)**

PACS/RIS and EIR systems digitise and store radiology images for both rapid access and integration with the patient's eMR. In the majority of our hospitals, clinicians now receive digitised radiology reports for patients in less

than 24 hours for faster, more accurate diagnoses and treatment plans for patients.

Our Electronic Imaging System (EIS) library provides access to any study (image or report) regardless of where it was taken within the NSW public health system. Over 50% of our Local Health Districts now use EIR and this is set to rapidly increase.

### **HealthNet and the National eHealth Record**

The National eHealth Record (NeHR) – also known as the Personally Controlled Electronic Health Record (PCEHR) – is a national initiative which provides patients with an electronic record that they control.

The PCEHR allows patients to hold their own electronic health records which can receive information from, and be viewed by, multiple health service providers who are involved with the patient – for example, hospitals and General Practitioners (GPs). The patient controls who can have access to that record.

HealthNet is the system NSW Health has developed to connect NSW public hospital and community services electronic medical records with the PCEHR. HealthNet provides public hospital discharge summaries to the PCEHR and allows public hospital clinicians to view the following patient records from other sources on the patient's PCEHR:

- electronic discharge summaries from private hospitals
- GP and specialist e-referrals
- GP shared health summaries
- Pharmaceutical Benefits Scheme (PBS) information
- Australian Organ Donor Register information
- Australian Childhood Immunisation Register (ACIR)
- Medicare Benefits Schedule (MBS) procedural information



- Medicare/Department of Veterans' Affairs benefits information
- Advanced Care Directive Custodian Record.

HealthNet is an important step in supporting integrated care for patients with complex and often chronic conditions that require care by multiple clinicians across a range of settings. So far, HealthNet has been implemented within the Western Sydney and Nepean Blue Mountains Local Health Districts, and The Children's Hospitals Network (Westmead and Randwick) which are the lead sites for developing this integrated model.

### eBlue Book

The eBlue Book, which is an electronic version of its paper based equivalent, documents health and development checks along with immunisation details for babies and children. Currently being trialed in the west of Sydney, the eBlue Book provides a convenient, easily accessible health record where inbuilt checks and reminders help parents better manage their child's health.

## Corporate building blocks

NSW Health has or is developing a number of eHealth business – or ‘back of house’ solutions – to manage health services as effectively and as efficiently as possible.

### Data warehousing and Patient Flow Portal

Used in over 200 of our hospitals and with an estimated 3,250 transfers per month, the electronic Patient Flow Portal provides a system for managing the movement of patients within and between hospitals. A system wide view of hospital capacity not only allows clinicians to find a bed for a patient far more quickly, but also helps to manage the NSW system effectively in critical situations like pandemics or mass emergencies.

### StaffLink Human Resource Information System (HRIS)

All staff from Local Health Districts, the Pillars and most other statewide health agencies are now managed through StaffLink, a single statewide payroll and human resources system. As a unified source of workforce information, StaffLink facilitates better planning and staff management, while the online self-service functionality allows staff to access their own information.

### Food Services

The Food Services IT system, CBORD, is being upgraded and standardised to enable more accurate management by clinicians of each patient’s dietary requirements and sophisticated inventory management by Food Services staff.

## Infrastructure backup

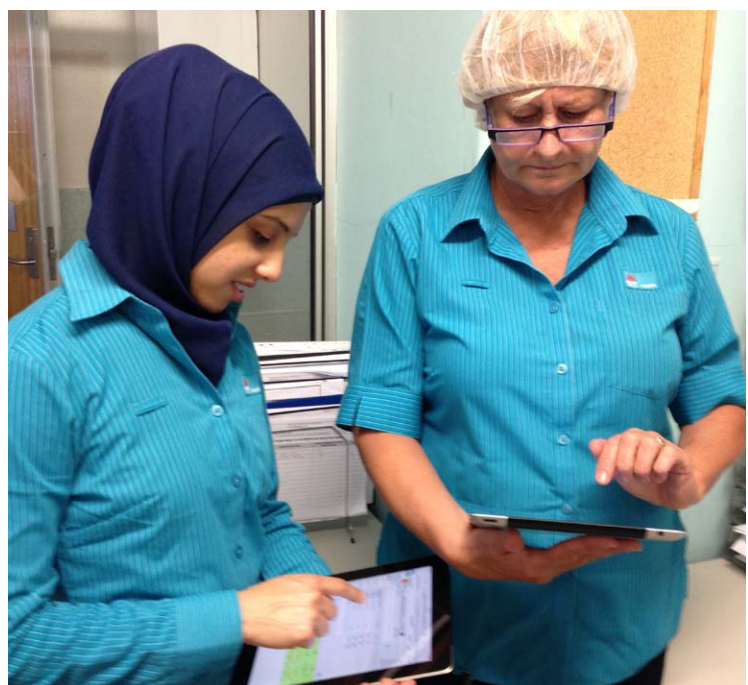
NSW Health is also rolling out new system upgrades to enable our eHealth solutions to work better and faster.

### Statewide Information System (SWIS), Phase 1

Under phase 1 of the SWIS program, upgrades have been undertaken for email and staff directories covering six Local Health Districts. This means that 40,000 users are now part of a common directory, have a common email address and are automatically linked to StaffLink (payroll) provisioning processes.

### Health Wide Area Network (HWAN), Phase 1 and 2

Under phase 1 and 2 of our rollout program (in progress), the creation of a single HWAN will enable a clinical grade network across 20 sites with significant increases in bandwidth to speed up the transmission of data.



# Our eHealth future



## Critical next steps

Having established the basic building blocks of a comprehensive eHealth system, NSW Health is now taking the next steps to ensure that technology remains a crucial partner in transforming patient care and service delivery.

These steps, which reflect our CORE values of collaboration, openness, respect and empowerment – as well as a commitment to local decision-making, and clinician and patient engagement – include a strengthening of governance, refreshing our strategic vision, and building on and leveraging our eHealth investment.

## Establishing eHealth NSW and introducing federated governance arrangements

Achieving a contemporary, responsive and world-class eHealth system in NSW requires new forms of governance, planning and enterprise architecture, including:

### Establish eHealth NSW

Currently forming part of HealthShare NSW, eHealth NSW will be established as a separate entity within NSW Health to provide state-wide leadership on the shape, delivery and management of ICT-led healthcare.

In partnership with Local Health Districts, eHealth NSW will have a number of state-wide responsibilities, including overseeing new governance forums, shaping broad

planning and investment strategies, setting technical, clinical and corporate application standards, supporting the roll out of localised and interoperable programs, ensuring accountability and performance, and maintaining NSW Health ICT infrastructure.

### Establish an eHealth Executive Council

An eHealth Executive Council, chaired by the Director General, NSW Health with Ministry, eHealth NSW, HealthShare NSW, Local Health District, Pillar and clinician membership, will be established and will be responsible for setting overall state-wide strategic direction while also liaising with the NSW Government ICT Board on whole of government initiatives.

The Council will be supported by a widely representative eHealth Architecture Executive with representation from Local Health Districts and eHealth users to provide statewide technical direction to guide decision-making on eHealth investments.

To ensure our statewide vision is responsive to local issues and demands, LHDs will also establish formal eHealth governance structures to both engage clinicians and connect with eHealth NSW.

### Adopt a federated governance approach for eHealth NSW

Effective and timely introduction of eHealth solutions can only be done in partnership with Local Health Districts and clinicians, and planning and management will now occur as part of a federated governance model. This approach balances centralisation – with its focus on standardised core systems and applications and localisation – with its need to innovate and adapt in response to the needs of our clinicians and patients.

Under the new governance arrangements eHealth NSW will be responsible for setting eHealth strategy, policy and standards. Local Health Districts will be responsible for supporting the implementation of statewide core systems and ensuring compliance with statewide standards, as well as for selecting, procuring and supporting local functions and systems.



### Appoint a Chief Clinical Information Officer, or CCIO

eHealth NSW will appoint a Chief Clinical Information Officer to engage clinicians in the process of setting eHealth strategies, planning and delivery of eHealth clinical solutions, and bolster the new organisation's clinical informatics capability. The CCIO will work closely with the Agency for Clinical Innovation and the Clinical Excellence Commission, along with the network of clinicians in Local Health Districts, to make sure that clinicians have the eHealth tools they need to provide the best possible care to patients and the community.

### Embedding state and local partnerships

Clinicians and Local Health Districts will not only be key to identifying eHealth strategies at a state-wide level, but also take responsibility for successful implementation of key programs at the regional and community level as well.

Local Health Districts will now have the capacity to tailor new systems to local clinical practice within statewide requirements, jointly plan system roll out and timelines, alter work practices to match IT application improvements, and adjust arrangements even once they have been implemented.

## Refreshing our eHealth vision

While the *NSW eHealth Strategic Plan 2006-2011* has served us well, it is time to set new strategic directions. A new five-year eHealth Strategic Plan will be developed to guide our future investment. Our new plan will:

- articulate the benefits of eHealth to patients, clinicians and the community
- consolidate the expansion of existing state-wide eHealth applications
- demonstrate the transparency of the eHealth infrastructure to ensure reliability and security of patient information
- support new eHealth solutions – including mobile and innovative “disruptive” technologies, and locally driven solutions – to meet changing needs and deliver new models of care, including outside the hospital setting
- build eHealth capacity across the whole NSW Health network, as well as developing key partnerships and collaborations that will enable and support connectivity across providers and treatment settings
- measure and report the benefits of our investment in eHealth.

## Building eHealth capacity and connectivity

Smarter systems developed across the whole healthcare network and in partnership with all stakeholders will deliver real connectivity for our patients beyond our hospital walls. Over the next 10 years, NSW Health is earmarked to spend \$1.5 billion on a broad range of clinical, corporate and infrastructure eHealth initiatives, including:

## New clinical systems

### Community Health and Outpatient Care (CHOC)

Specially designed integrated clinical and electronic medical record systems for the NSW community health and outpatient network will improve coordination, communication and medical information for clinicians working in dispersed facilities, as well as better healthcare management for patients wherever they live. Services that will be better connected include Aboriginal Health, Aged and Chronic Care, Allied Health, Child and Family, Community Home Nursing, Drug and Alcohol, Mental Health and Sexual Health.

Target completion date: end 2015/16

### Electronic Medical Record Phase 2 (eMR2)

eMR2 improves both the functionality of our existing electronic medical record system and its reach right across the NSW Health network. Expanding the use of voice recognition in our existing eMR is a key component of eMR2 as it allows clinicians to navigate clinical systems, and dictate medical decisions and treatment plans directly into a patient’s record. Currently being trialed at Manly Hospital.

Target completion date: end 2016/17

### Intensive Care Clinical Information System (ICCIS)

ICCIS will bring an array of digital and online technologies to Intensive Care management, monitoring and decision making via multiple, real time electronic data, improved bedside interfaces, integrated medical records and medication management, and increased use of intelligent devices and software.

Target completion date: end 2016/17

### Electronic Medication Management (eMM)

By providing real time information to all users, eMM will improve the accuracy and efficiency of patient medication management, while giving clinicians informed and advanced prescription advice and support where and when they need it.

Target completion date: 2018/19



## New corporate systems

### Asset and Facilities Management Performance Improvement Program (AFMPIP)

A new tool is being developed to help managers and biomedical engineers manage the maintenance, inspection scheduling and testing of health facilities and medical equipment. This will help ensure that our health assets are in the right condition, time and location for delivering patient care.

Target completion date: end 2013/14

### HealthRoster

NSW Health is trialing HealthRoster at Concord Hospital. The new system allows managers to more effectively match the availability and skill levels of staff to the needs of patients. The new system, which is earmarked for statewide rollout, will also be linked with our payroll and HR systems.

Target completion date: end 2014/15

### Incident Information Management System (IIMS)

Replacing our current IIMS with a new eHealth solution will improve the reporting and tracking of clinical incidents so that

workplace safety, patient outcomes and care coordination are optimised. All parts of NSW Health – the Ministry, Pillars and Local Health Districts – will have access to the new system.

Target completion date: end 2014/15

## Infrastructure upgrades

### Statewide Information System (SWIS), Phase 2

Phase 2 of our Statewide Information System will provide a single staff directory for all Local Health Districts, the Ministry and Pillars.

Target completion date: end 2014/15

### GovDC – all of Government Data Centres

NSW Health, together with NSW Education and Communities are anchor tenants in the all-of-NSW Government data centre reform program known as GovDC. The new data centres have opened and migration will soon commence.

The new high-performance data centre environment will bring about a more efficient and reliable IT infrastructure to better support the rollout of critical clinical and corporate systems.

Target completion date: end 2017/18



# Next steps

NSW Health has established the basic building blocks required to create a truly e-Enabled health system.

The next steps will be to join up these building blocks to integrate health care around the needs of the patient, both inside and outside the hospital.

With this Blueprint, we have a clear vision for how we will take our investment in eHealth forward.

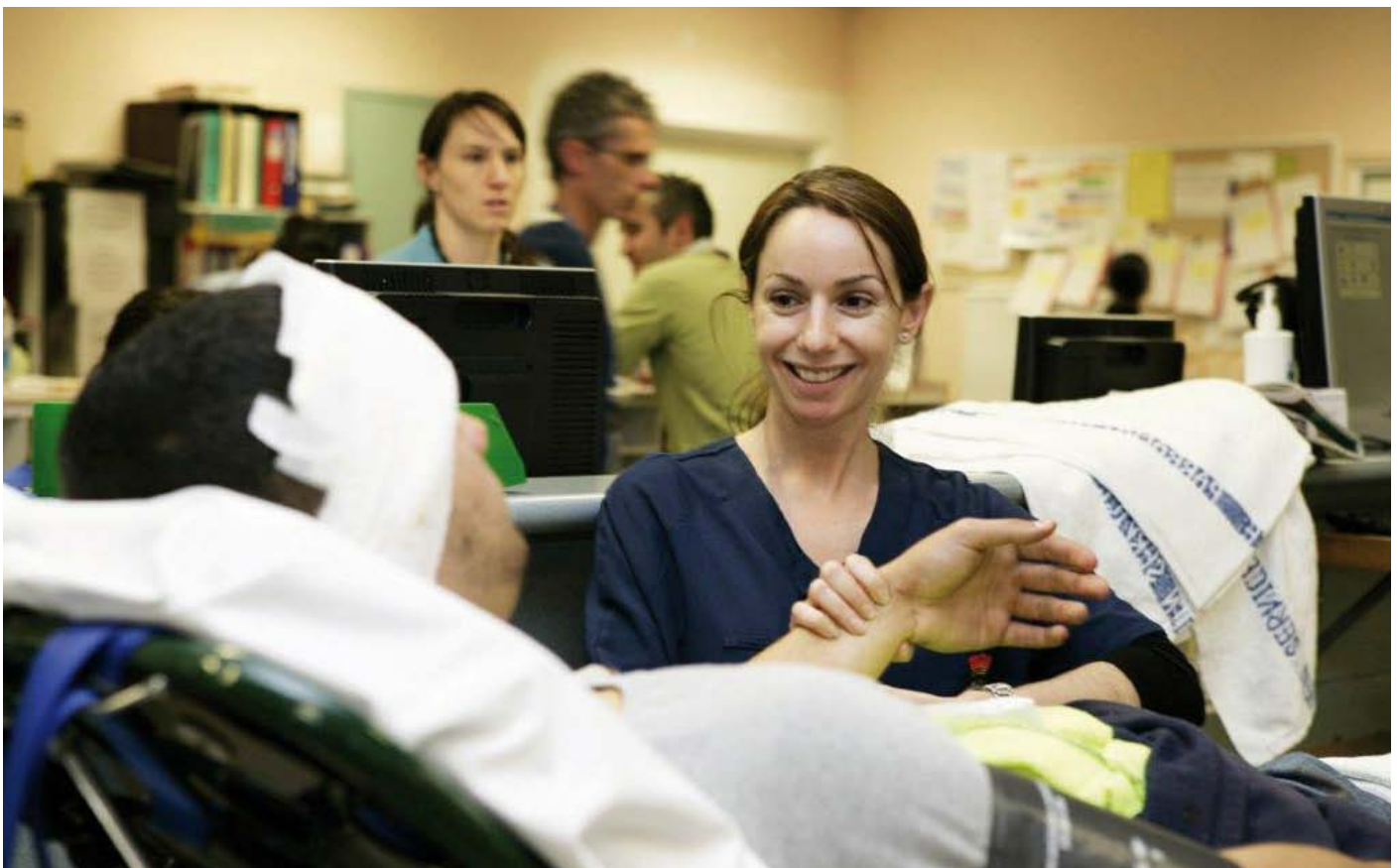
A key first step will be to appoint the Chief Executive of eHealth NSW, who, together with the eHealth Executive Council, will work closely with Local Health Districts and Networks to refresh the strategic plan and to continue the rollout of our core eHealth solutions.

Building eHealth capacity and capability across the health

system is a key priority, and eHealth NSW will lead the roll out of core programs in Community Health and Outpatient Care, Medication Management, Intensive Care, and the next phase of our Electronic Medical Record System.

Working with our clinicians to ensure we fully realise the benefits of eHealth - including how we embrace new and emerging mobile technologies – will be critical. The appointment of a Chief Clinical Information Officer will ensure that we create an eHealth system that enables our clinicians to do what they do best – provide world class patient care.

This new direction for eHealth puts the patient first as we seek to build a connected future for delivering accessible, quality, value for money healthcare across the State.





## Intensive Care digital

Intensive Care Units are high-pressure places where health professionals work around the clock making urgent, often life and death, decisions.

To better support patient care, a new intensive care clinical information system or ICCIS is being rolled out across NSW, replacing paper records and rapidly transforming the high level care experience for both patients and staff.

Dr Robert Herkes, Intensive Care Services Director at Royal Prince Alfred Hospital says an intensive care clinical information system takes all the bedside information and puts it in to an electronic format so that it can be accessed by multiple clinicians in different locations at the same time. “And because it reduces communication errors it’s a much more efficient and safer approach to patient care,” said Dr Herkes.

ICU digital patient information can also be readily incorporated in to other clinical or administrative systems like the Electronic Medical Record or as an electronic flow chart showing multiple, dynamic data.

“There’s a lot of information collected in ICUs, but once the data is electronic it’s not only easier to capture and express in visual formats and over time, but can deliver digital or even auditory cues to prompt better patient management,” Dr Theresa Jacques from St. George Hospital’s ICU, said.

“Computerised information is not only clear and simple to access and understand, but enables teams of people to work on agreed common goals with patients, and that’s great for results and staff satisfaction,” said Kay Williams, Clinical Nurse Educator at the ICU at Blacktown Hospital.

**HealthShare NSW**

PO Box 1770, Chatswood NSW 2057  
Tel. (02) 8907 1401 Fax. (02) 9411 6868

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Health