#### eHealth NSW

### eHealth NSW News

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### Orange Health Service Bloomfield Campus

# Chief Executive's message



Welcome to the last edition of eHealth NSW News for 2023. I am pleased to share we have celebrated some key milestones within some of our major transformative programs in recent months. This exciting progress is great news for all NSW Health clinicians, staff, consumers, patients, and carers as we work together in building a better, safer, more digitally enabled health system.

In recent months, the Single Digital Patient Record (SDPR) has taken a significant step forward. In August, NSW Health entered into a contract with Epic Systems, a world-leading software company, specialising in the design and delivery of electronic medical systems and associated technologies. As a result, Health Minister Ryan Park announced in October that work is now underway on the design of this next-generation system.

We're also progressing the Health Grade Enterprise Network (HGEN) initiative. This will replace ageing, inconsistent local infrastructure at local health districts (LHDs) and specialty health networks (SHNs) to ensure the foundational ICT infrastructure across NSW Health is robust and ready to meet future healthcare needs.

The migration of the Electronic Medical Records (eMR) to the cloud in October was a success for Western Sydney and Nepean Blue Mountains LHDs and one of the first in the world. This move was a big collaborative effort between eHealth NSW, our LHD colleagues and our ICT industry partners.

Meanwhile, iPharmacy's new state-based build and cloud migration is set to enhance clinical collaboration and access to information. This statewide digital platform is giving clinicians instant access to comprehensive patient dispensing information.

The Radiology Information Systems & Picture Archiving & Communications Systems (RIS-PACS) solution is moving closer to completing its statewide rollout. The system is now live at Western NSW and Far West LHDs where it is providing a patient-centred approach to imaging storage and access. It was pleasing to see NSW Health become the first jurisdiction to comply with new legislation to upload hospital administered vaccinations to the Australian Immunisation Register (AIR) in September. It is also great to see how this is now helping staff to meet their vaccine administration reporting obligations and importantly, save them time.

The Health Prototyping Centre (HPC) at Macquarie Park continues to support innovation and collaboration across the NSW Health network. NSW Health and the St Vincent's Alcohol and Drug Information Service recently utilised the HPC to test and design a new chatbot for their 'Your Room' website to improve user experience.

Consumers are always at the core of our digital healthcare solutions. In this edition we share some of the ways we are reaching out to them to make sure they have a vital say in the design and delivery of their health system.

As 2023 comes to a close, I wanted to take the opportunity to thank all of you – our NSW Health colleagues, partners and consumers – for your ongoing support and collaboration.

Together with everyone at the LHDs and SHNs, the Ministry of Health, pillars, statewide shared services, as well as our industry stakeholders and vendors – we have achieved so much.

And thank you for taking the time to read our latest news –we hope you enjoy these updates. To find out more visit the <u>eHealth NSW website</u>.

Best wishes, Dr Zoran Bolevich

Chief Executive, eHealth NSW Chief Information Officer, NSW Health

## Designing the Single Digital Patient Record

NSW Health's largest digital transformation program is now underway with global technology supplier Epic Systems signing on to deliver the Single Digital Patient Record (SDPR).

The SDPR will provide a highly secure and holistic record of a patient's care at NSW Health services. The nextgeneration system will enhance experiences of care by giving clinicians access to a patient's medical information in real-time, from a single source.

It will integrate and build upon the existing electronic medical records (eMR), laboratory information management systems (LIMS) and patient administration systems (PAS).

Consistent and comprehensive patient health records will be available across all NSW Health services and facilities. This includes public hospitals, community health centres and pathology laboratories.

The SDPR will be delivered collaboratively and in partnership with Local Health Districts (LHDs), Specialty Health Networks (SHNs) and other NSW Health organisations, facilitated by eHealth NSW and NSW Health Pathology.

eHealth NSW Chief Executive and NSW Health Chief Information Officer Dr Zoran Bolevich said the SDPR will support the delivery of consistent, safe, and timely care across NSW Health.

"For the first time in NSW, all healthcare teams will be able to use the same system to access clinical information in real-time, record the care they provide, order diagnostic tests and manage medications," Dr Bolevich said.

"Patients will have confidence that their care teams have all the relevant information at their fingertips, no matter which public hospital or community healthcare facility they visit."

A new SDPR Steering Committee was established in August this year with representation from across the NSW Health system. This group will oversee the system's design and implementation and are responsible for key decision making. Recently the group endorsed the SDPR program governance model, including the Design Authority and discipline-specific councils. It is expected that there will be approximately 70 specialist groups that will lead the configuration of the SDPR ensuring that clinicians are empowered to make key design decisions on the SDPR to meet their needs.

Consumers will also be consulted through working groups and wider advisory groups including the existing eHealth NSW Consumer Reference Group. We continue to build strong connections with these groups to ensure a diverse range of voices are heard.

Once the design and configuration phase is complete, the SDPR program will move to implementation at its lead site.

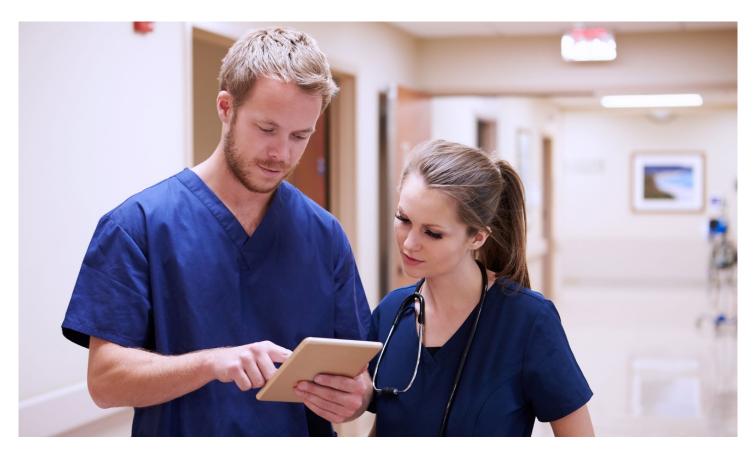
Hunter New England LHD and the HNE-based laboratories in the NSW Health Pathology North Network are scheduled to be the first to go live with SDPR in 2026 followed by the Justice and Forensic Mental Health Network. This will be followed by a phased rollout throughout NSW. Northern NSW LHD and Mid North Coast LHD are the first sites in the second tranche followed by Northern Sydney LHD and Central Coast LHD. This ensures rural LHDs, and their patients, can start benefitting from the SDPR early in the rollout schedule. There are 3 further tranches to complete the statewide rollout by 2029/30.

If you would like to know more about SDPR and receive regular updates, please contact our team at <u>EHNSW-SDPR@health.nsw.gov.au</u>.

You can also learn more by visiting the <u>SDPR page</u> on the eHealth NSW website.



### ICT infrastructure upgrade supporting future healthcare needs



NSW Health is embarking on a major ICT infrastructure upgrade with the upcoming rollout of the Health Grade Enterprise Network (HGEN).

HGEN is a statewide initiative for the ongoing purchase and management of ICT network infrastructure.

Our core clinical systems rely heavily on ICT infrastructure to function at their best and support safe, timely, quality patient care.

Over the coming years, over 1100 NSW Health facilities will progressively refresh local networking hardware and services to improve network coverage, reliability, and performance.

As our reliance on digital technology continues to grow, this will help ensure NSW Health services are well equipped to meet evolving patient, clinician and staff needs. HGEN is also paving the way for future innovations and will support the delivery of the Single Digital Patient Record.

HGEN will provide a consistent approach to network services across NSW Health. The upgrades will include new switches, wireless access points, cabling, network licensing and communication room upgrades.

The program aligns with the NSW Health Future Health Strategy to have a consistent, interoperable, and future ready IT environment.

Visit the eHealth NSW website to learn more about HGEN.

### eMR moves to the cloud



eHealth NSW has partnered with Western Sydney and Nepean Blue Mountains local health districts (WSLHD and NBMLHD) and vendors to successfully migrate the <u>Electronic Medical Records</u> (eMR) from local on-premise servers to the NSW Health public cloud.

eHealth NSW is one of the first organisations in the world to host its production 'Cerner Millenium' eMR on the Amazon Web Services cloud platform.

The eMR is vital for clinical care across the state. At WSLHD and NBMLHD the eMR is used at 9 major hospitals, 16 community health services, and many pathology sites.

Leading up to the migration was 12 months of intensive planning and over 200 days of testing. Over 65 people from 15 different NSW Health teams collaborated with our vendor partners on this migration. One of the project leaders, Meg Ma, Director Clinical Systems, Digital Health Solutions at Western Sydney LHD said she was very proud of the team's achievement.

"Thanks for the team's meticulous planning in testing, troubleshooting, go-live prep, and support. This sets the benchmark for all other eMR migration projects."

The team worked around the clock to transfer 325 software applications and data feeds from on-premise infrastructure to the cloud.

Kieron McGarry, Acting Executive Director of Service Delivery at eHealth NSW, said it was a truly collaborative effort, with teams from across eHealth NSW working side by side with WSLHD and NBMLHD colleagues and vendors. "It was vital that this planned migration was as efficient as possible so we could minimise the impact on clinicians providing care to patients.

"From day one, everyone involved from our project team, WSLHD and NBMLHD colleagues to Oracle Health and the cloud vendors, were determined to leave no stone unturned and were passionate about going that extra mile to ensure success.

"This migration has been a massive success and is another key step in the digital transformation of NSW Health, Kieron said.

Cloud technologies provide a more reliable and scalable platform which require less maintenance and reduce the risk of unplanned outages.

We have already seen a 30% increase in the performance of the system and are able to expand eMR services in the future in just a matter of days rather than months using on-premise servers.

eHealth NSW is partnering with local health districts, NSW Health organisations and vendors to help drive the digital transformation of Australia's largest public health system.

To learn more about how we are using cloud technologies to help transform the NSW Health system listen to the Let's Talk eHealth podcast.

# i.Pharmacy state-based build bringing patient benefits

i.Pharmacy, a clinical application used across all public hospital pharmacies in NSW, is currently being migrated to the cloud by eHealth NSW.

The statewide digital platform gives clinicians instant access to comprehensive patient dispensing information.

The new state-based build (SBB) and cloud migration will enhance clinical collaboration and access to information, supporting better coordinated patient care.

Director of Pharmacy at Sydney Children's Hospitals Network Peter Barclay said one of the main benefits was improved access to patients' prescription and dispensing history from across the state.

"This allows for better-informed clinical decisions about treatment and improved continuity of care," he said.

The new i.Pharmacy will enable seamless transitions for patients' medication history between hospitals across the state, no matter the location.

Mr. Barclay said this would enhance care delivery for patients from regional or rural areas.

"Through shared care models, patients can receive specialised treatment closer to their homes, eliminating the need for unnecessary travel," he said.

Mr. Barclay said it would also benefit paediatric patients who transition to the adult system or patients who move between local health districts.

"It's really important when a young adult is moving from the paediatric service into adult services for anyone who's looking after them to be able to see their dispensing history," he said.

Thanks to the i.Pharmacy SBB and cloud migration, these patients' dispensing histories will remain accessible to all clinicians.

"This continuity ensures accurate medication management, and smoother handovers."

The i.Pharmacy SBB also allows pharmacists to effectively manage drug shortages. With access to stock data, hospital pharmacies can track inventory and usage patterns over time.

"The biggest difference it will make is that we are working as one across the Sydney Children's Hospitals Network, rather than as individual hospitals. This allows proactive planning to ensure stock is available until supplies return," Mr. Barclay said.

"This helps prevent disruptions in patient care and enhances patient safety."

Finally, the i.Pharmacy SBB also offers a more userfriendly interface that allows clinicians to quickly access medication information.

"It's very quick to look up something," Mr. Barclay said.

"You can immediately see all medications prescribed and dispensed."

eHealth NSW commenced the rollout of i.Pharmacy SBB across the state in October 2023. For NSW Health staff seeking more information about i.Pharmacy, please visit the i.Pharmacy Sharepoint site or email the program team EHNSW-iPharmSBB@health.nsw.gov.au



# Medical imaging solution goes west



Clinicians and patients at Western NSW Local Health District (WNSWLHD) are now experiencing the benefits of the Radiology Information Systems & Picture Archiving & Communications System (RIS-PACS).

General Manager of WNSWLHD Imaging services, James Harvey said around 47,841 examinations had been managed through the system since its go live in August 2023.

"For the medical imaging teams, the new RIS-PACS has enabled us to increase efficiency and accountability in our workflows."

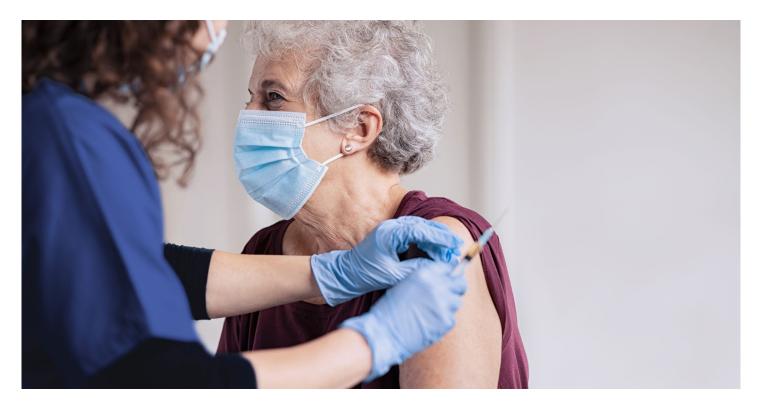
RIS-PACS offers healthcare teams access to complete imaging histories, comparison images and reports using innovative technology. For patients, it ensures easy access to their imaging history, regardless of where they present in the NSW Health system. RIS-PACS has also enabled the workflow of the Mobile CT service providing clinicians, anywhere in the state, with instant access to a patient's medical images, as soon as they are captured.

This means patients in Cobar, Walgett, Bourke, and surrounding areas now have reliable and ongoing access to high quality medical imaging services locally, removing the need to travel long distances for diagnostic care.

Since 2020, RIS-PACS has helped connect 1,517 pieces of medical imaging equipment and migrate 28 million imaging studies. It is now live across 86 hospitals in 13 LHDs.

To learn more, visit the <u>RIS-PACS solutions page</u>.

# NSW Health breaks new ground with AIR solution



eHealth NSW in collaboration with Health Protection NSW has helped NSW Health become one of the first jurisdiction in Australia to meet the Federal Department of Health's mandate to report vaccines under the National Immunisation Program (NIP) to the Australia Immunisation Register (AIR). NSW Health exceeded the mandated requirement by also reporting additional vaccination records such as Monkey Pox and Japanese Encephalitis.

Earlier this year, eHealth NSW was tasked with building a solution to integrate new and historical vaccination records with the AIR. The solution went live on 18 September 2023.

The new integration will help clinicians administering vaccines to meet their obligations to record each immunisation within 10 business days. It integrates existing source systems, minimising the need for manual data entry into the AIR, and saves clinicians' time.

Executive Director, Health Protection NSW and Project Sponsor, Dr Jeremy McAnulty, said it was pleasing to see the AIR Integration solution's successful go live.

"The system will provide a seamless experience to clinicians and make it simpler for them to record vaccinations, deliver care and improve patient outcomes," he said. eHealth NSW Program Director, Peter Gollop said it has taken a significant team effort to achieve this milestone.

"The project launch has highlighted the successful collaboration between the NSW Ministry of Health, eHealth NSW, and hundreds of clinical and technical staff from NSW Health local health districts and specialty health networks."

Following the successful launch, automated integrations will be rolled out to 7 source systems across the statewide network of LHDs and SHNs by the end of 2023.

Several systems were excluded from the integration due to technical incompatibilities, notably eMaternity and Cerner PowerForms. As a result, in addition to the ongoing upload of records, more than 650,000 historical records will also be migrated to the AIR.

Existing patient record systems developed by eHealth NSW, such as <u>Electronic Medication Management (eMeds)</u> within the <u>Electronic Medical Record (eMR)</u>, have been seamlessly integrated with AIR allowing automated upload of future immunisation records.

To learn more please contact <u>EHNSW-</u> <u>AIRIntegrationSupport@health.nsw.gov.au</u>

### Your room for ideas

The Health Prototyping Centre (HPC) at Macquarie Park in Sydney is supporting staff across NSW Health turn ideas into reality.

The purpose-built space was recently used to prototype and design a drug and alcohol information chatbot for NSW Health's <u>Your Room</u> website.

Your Room is a joint initiative by NSW Health and St Vincent's Alcohol and Drug Information Service. The website provides facts about alcohol and other commonly used drugs in Australia.

The Your Room team identified the need to improve navigation on their website for a range of users. The goal was to answer their questions by quickly directing them to relevant information.

The team approached eHealth NSW to build the proposed solution and used the HPC to discover and validate use cases by building and testing a chatbot prototype using a 'design sprint.'

The prototype was used to gather feedback on the types of questions consumers would ask the chatbot, the level of detail they would expect in a response, what they would do with the information and how feasible it would be for the team to incorporate this into the proposed technical solution.

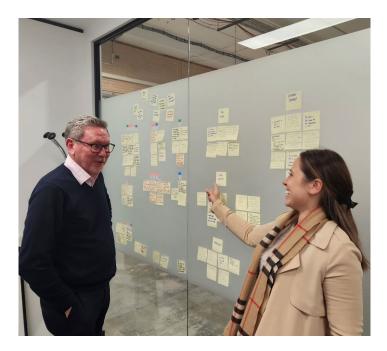
Prototype testing with drug and alcohol service users across different age groups as well as counsellors confirmed that most consumers prefer to talk to a bot rather than a real person on this subject, especially those curious about drugs. The anonymity offered by a chatbot was highly appealing.

The design sprint process helped the team to identify the need to engage a content specialist for the project. This specialist would help construct conversational flows for a chatbot and simplify language to engage consumers in a quite different way to traditional online health tools or articles.

"The design sprint has been a really important element in helping to clarify stakeholder perspectives and obtaining feedback from real life Your Room users on the purpose, look and feel of the chatbot," eHealth NSW Project Manager Amit Chandra said.

NSW Ministry of Health Prevention and Education Manager Lisa Russel said the design sprint at the HPC was a rewarding experience for the Your Room team.

"An opportunity to get invested stakeholders together to brainstorm uninterrupted is rare and ultimately the resulting product will be all the better for it."



#### What is a design sprint?

A design sprint is a time-constrained process to map out challenges, explore solutions, pick the best ones, create a prototype, and test it.

#### What is a chatbot?

A chatbot is a computer program designed to simulate conversation with human users over the internet.

#### About the HPC

The HPC is an initiative between eHealth NSW, Health Infrastructure NSW, HealthShare NSW and NSW Health Pathology.

It allows NSW Health staff to come in and test new concepts and designs in simulated environments before they are built.

25 ideas have been tested at the HPC since it opened in August 2022.

Your Room's chatbot was a recent example of how the HPC can be used to fast-track healthcare solutions.

To find out more visit the <u>Health Prototyping Centre</u> web page or <u>view the tour video</u>.

## Putting consumers at the centre of healthcare



eHealth NSW continues its commitment to engage with consumers, ensuring that community voices are at the heart of the solutions we build and services we deliver.

Consumer, Community Engagement and Partnerships Manager Beverley Waters said, "Consumers are the only constant throughout every healthcare journey."

Early this year, eHealth NSW established a Consumer Reference Group that meets monthly to plan how we can involve consumers in our programs. Almost 88% of the group's members are regional consumers.

The Consumer Engagement team participated in 36 community events this year and have connected with over 8000 consumers across the state, many of whom now receive regular updates on our work. The team has met a diverse range of people including carers, parents, community leaders, students in different settings such as career expos, playgroups, seniors' hubs, and other community events. Ms Waters said consumer engagement was key to developing better, safer health systems.

"Consumers have so many insights to offer that can help us think differently about how we can improve, innovate and work towards positive experiences for everyone that uses our services," she said.

#### Get involved

eHealth NSW is committed to strengthening the consumer voice. Are you interested in being involved in the planning, delivery, and evaluation of our digital health solutions? <u>Register your interest</u> to join our consumer network.

### Quick bytes

#### Cloud talk

Learn how eHealth NSW is using cloud technology to transform the NSW Health system. In this podcast eHealth NSW's Daniel Hansen, Senior Program Manager of Cloud Transformation Services, Adam Stanzione, Director of Cloud Services and Michael Bogiatzis, Director of Critical Infrastructure Refresh unpack cloud technology

Listen on Spotify or Apple Podcasts

#### Meet Omer

Our Governance Manager of Information Security Services at eHealth NSW shares what it's like to work in cyber security within digital health.

Watch video

#### eHealth NSW

Tower B, Level 16, Zenith Centre 821 Pacific Highway Chatswood NSW 2067 P 02 9880 3200

