

The Health Advocate

Your voice in healthcare

Australia's pathway
to digital health
technologies

ACT's digital health
transformation

Google maps for
healthcare?

Reducing error with
diagnostic informatics



Data and digital

**+MORE
INSIDE**

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a super
fund that
understands
my industry.”**

Anne Mitchell,
HESTA member

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Contents

In depth

- 11. Australia's pathway to realising the benefits of digital health technologies
- 14. Reducing error with diagnostic informatics
- 20. Clinicians help drive ACT's digital health transformation
- 23. Creating patient-centred data
- 26. Going digital

Briefing

- 17. Maps for healthcare
- 29. The ClinTrial Refer mobile app and website platform
- 32. HealthPathways guiding oral health management in primary care
- 36. The top 5 governance risks identified by health boards

From the AHHA desk

- 04. View from the Chair
- 06. Chief Executive update
- 08. AHHA in the news
- 42. Become an AHHA member
- 43. More about the AHHA

Advertorial

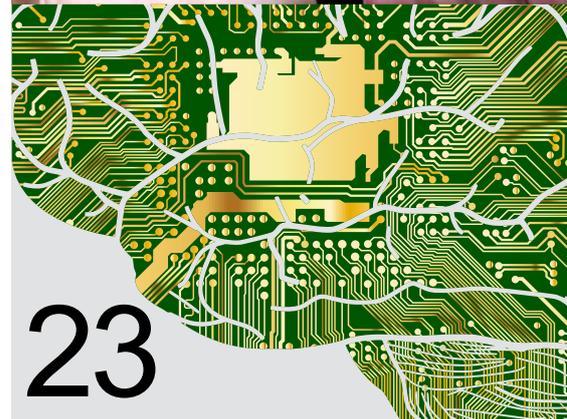
- 34. Reducing trauma impact
- 38. Staff security awareness



14



17



23



26



DEBORAH COLE
Board Chair, Australian
Healthcare and Hospitals
Association (AHHA)

The time for electronic health records was yesterday

Electronic health records. Three words that invoke a mix of excitement, fear, frustration and impatience in healthcare professionals across Australia. We've been talking about them for decades. We've spent millions. And yet we still don't have a centralised system that shares health data across care teams to add value to patients. The barriers seem to have overwhelmed us. As a result, we have a patient health data system that is woefully out of date and inhibits our ability to provide integrated care and improve health outcomes.

Last week, I asked a colleague about when she first heard those three exciting yet seemingly unattainable words. She said it was 1983, she was a nurse and the promise of electronic health records first crept into conversations around the hospital halls. Fast forward to 2019 and we are still grappling with how to create a 'borderless' digital health ecosystem that will empower care providers and consumers with the data they need to make informed decisions.

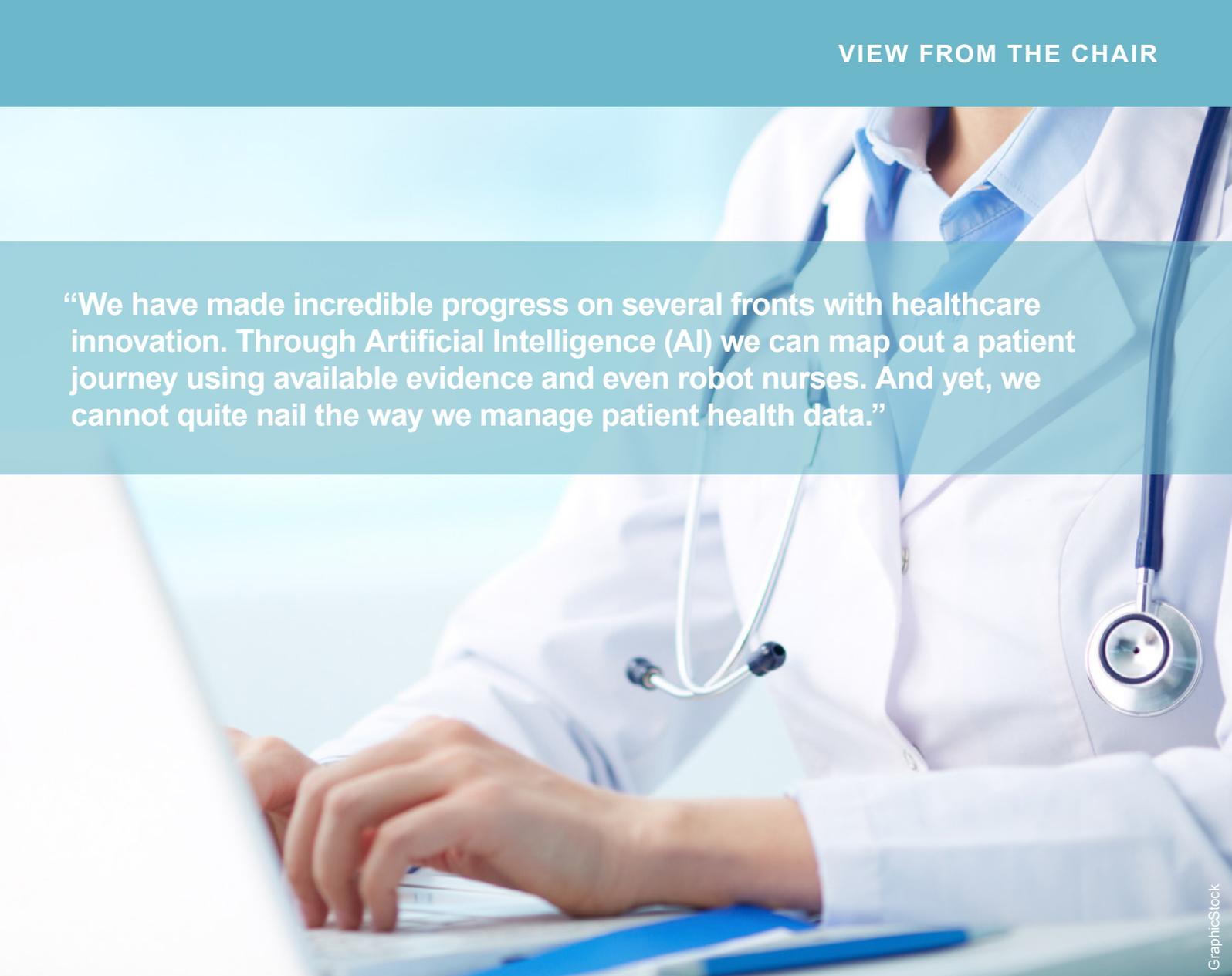
It's 2019 and patient records still exist within the silos of different providers. For example, a cancer patient might be having surgery at a public hospital, radiotherapy through a private clinic and chemotherapy through an outpatient facility. They may also be receiving support from a mental

health practitioner as well as a nutritionist and other care providers. Yet none of these providers have a centralised healthcare database they can access to inform their decisions. Accountability, workflow, and continuity of patient care are compromised as a result.

We have made incredible progress on several fronts with healthcare innovation. Through Artificial Intelligence (AI) we can map out a patient journey using available evidence and even robot nurses. And yet, we cannot quite nail the way we manage patient health data.

Every time I speak to an IT expert, they tell me the technology is available and it's easy to do. Then I talk to healthcare professionals and they share a long list of reasons as to why we're failing to progress. The barriers have left many of us in a state of paralysis. And so we continue on and six months later we ask the same question and we get the same list of reasons why nothing has happened as yet.

I don't mean to undermine the complexities associated with adopting a digital platform that engages and empowers various care providers as well as consumers. Patient confidentiality is a major factor and one that needs to be carefully analysed and addressed. Because the way we manage patient data extends across networks,



“We have made incredible progress on several fronts with healthcare innovation. Through Artificial Intelligence (AI) we can map out a patient journey using available evidence and even robot nurses. And yet, we cannot quite nail the way we manage patient health data.”

partners, the community and the home, we need robust strategies that safeguard patient privacy while ensuring everyone has access to the information they need to provide the best possible care.

The size and complexity of our health system also creates a rather stubborn roadblock. Unlike centralised European systems, we have a multi-tiered system with state and federal government involvement, as well as a large private health sector. Collectively this can make the design and implementation of centralised records extremely challenging.

And then there are the wide-ranging needs of different healthcare professionals that

have resulted in the use of incompatible digital platforms. And while some healthcare professionals—for example general practitioners—have strongly adopted electronic records, others have continued to resist ehealth.

Yes, the challenges are many and some seem insurmountable. But I remain an optimist. With an ageing population suffering from multiple co-morbidities and clinical demand at an all-time high, it's more important than ever for us to harness the power of technology to introduce centralised electronic patient records.

The technology is ready and waiting; it's time to put our heads together. Governments need to be brave and get it done. 



ALISON VERHOEVEN
Chief Executive
AHHA

Data and digital health—changing the way we work

Welcome to this August 2019 issue of *The Health Advocate*.

Our ‘data and digital’ theme for this issue follows a ‘digital healthcare’ theme that we pioneered last June at a time when the Australian Digital Health Agency (ADHA) was ramping up implementation of an ‘opt-out’ registration model for the Australian Government’s ‘My Health Record’. This followed some years of low take-up of the former ‘opt-in’ Personally Controlled Electronic Health Record.

At the time we thought—and still do—that My Health Record’s opt-out model helped balance the clinician’s need for information with a patient’s right to privacy.

A lot of electrons have passed through the wires and optical cables since then. Controversies erupted about privacy—principally that the law governing My Health Record then did not require a warrant or court order for the operator of the system (the ADHA) to provide medical records to police or other enforcement agencies, including the Australian Taxation Office.

At the time we said that legislation requiring a court order was the only sensible way to ensure and future-proof a robust eHealth system in which Australians could have trust and confidence. To its credit the Australian Government listened to the concerns and the necessary legislation was subsequently passed.

This year, things have moved on and are accelerating in all things data and digital in healthcare. We have brought some of the key elements to you in this issue.

As the ADHA celebrates its third birthday, ADHA Chief Medical Adviser Professor Meredith Makeham outlines progress being made with Australia’s National Digital Health Strategy—the number 1 component of which is My Health Record. Over 90% of Australians now have access to and control of their key summary health information in My Health Record. The other aspect of digital strategy discussed by Prof. Makeham is medicines safety.

Backing up the summary information available in My Health Record are innovations such as the ACT Health Directorate’s planned Digital Health Record, which will contain much more detailed clinical information (subject to privacy and confidentiality provisions).

Peter O’Halloran, Chief Information Officer at the ACT Health Directorate outlines a \$106 million clinician-driven (rather than technology-driven) system where anyone accessing ACT publicly-funded health services will have their treatment journey mapped and tracked through the Digital Health Record.

On the subjects of mapping and tracking, Daniël Erasmus from Insight Actuaries ponders interacting with the healthcare system in the same way as we

“This year, things have moved on and are accelerating in all things data and digital in healthcare. We have brought some of the key elements to you in this issue.”



do with Google maps. What if we could plot a destination to the healthcare outcomes we want to achieve and plan the ideal route using the experiences of others like us to curate our own unique journey?

Turning to the data side of digital healthcare, Associate Professor Chris Pearce from Outcome Health offers his views on how increasing digitisation of healthcare in Australia is opening up possibilities but also exposing weaknesses in the current system if we are to create data that is truly patient-centred.

Staying with data, Julie Li and Andrew Georgiou from the Australian Institute of Health Innovation, Macquarie University, explain how diagnostic informatics are laying the foundations for effective, safe, high quality patient-centred care.

David Bunker, Executive Director, Queensland

Genomics discusses using the vast amounts of digital health information available to create a precision-medicine-oriented ‘learning’ health system in Australia.

On a smaller but still innovative scale, Christine Zahren, Business Development Manager, ClinTrial Refer, writes about the ClinTrial Refer mobile app and website platform that helps connect patients and healthcare professionals to current clinical trial information. The app and website increase the visibility of trial sites round Australia as well as enabling access to current clinical trials.

Digital health services and data are rapidly changing and empowering the way we ‘do’ healthcare in Australia—both as providers and consumers. It has been our pleasure to bring you some great examples. Happy reading! 

AHHA in the news



19 JUNE 2019

Victoria's 'citizen-driven' voluntary assisted dying laws

Australia's first enduring voluntary assisted dying laws came into effect on 19 June 2019 in Victoria.

'The laws are not only a major shift in the response to end of life—they are a watershed in the rise of the consumer voice in health', Australian Healthcare and Hospitals Association (AHHA) Chief Executive Alison Verhoeven said.

'Public support for voluntary assisted dying is very strong—it was estimated at 75% in an ABC survey back in 2016—so the movement towards legislative reform is not surprising.

'It is likely other states will follow Victoria's lead in due course.

'The key to legislative change in Victoria was the approach taken in developing the new laws. It was citizen-driven and inclusive, combining evidence, science and social action', Ms Verhoeven said.

'Accordingly, the laws are cautious, with many safeguards—but they have been agreed on and passed.

'In 2018 AHHA published two research papers on this topic in our peer-reviewed *Australian Health Review* journal—[Documenting the process of developing the Victorian assisted dying legislation](#) (author team led by Professor Margaret O'Connor, Monash University), and the [Future of assisted dying reform in Australia](#) (by Professors Ben White and Lindy Willmott, Queensland University of Technology). Professor White is an associate editor with the *Australian Health Review*.

'The authors argued that the rise of individualism and personal autonomy in society has been a key factor in changing social attitudes to issues such as assisted dying', Ms Verhoeven said.

'They argued that "restlessness" in democratic societies can be attributed to individuals seeking to maximise their places in society through expressing their individuality and autonomy in various ways.

'This includes making their own informed choices in healthcare, in the context of a more equal

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relationship between consumers, the professions and governments—and a cultural shift away from traditional “top down” communication patterns.

‘In Victoria, the process of reform began with a state government request to the Parliamentary Legal and Social Issues Committee to inquire into the need for Victorians to make informed decisions regarding the end of their lives.

‘Significantly, the Committee comprises membership from all political parties and cross benches—it’s noteworthy that parliaments across Australia are increasingly taking this approach to complex social issues.

‘The Committee sought input from all sectors of the community and received over 1,000 submissions before recommending legislating for voluntary assisted dying (VAD), using an approach most likely to be passed in the Parliament—where VAD would

only apply to people in the end stages of terminal illness, and with numerous safeguards and respect for conscientious objections.

‘The Victorian Government then formed an innovative seven-person Multidisciplinary Advisory Panel to progress the work, supported by Department of Health and Human Services staff. The legislation was never in question, only the shape of it with regard to eligibility, the request and assessment process, and oversight and governance. Again, consultation and listening to concerns were key, as well as catering for every detail.

‘Ultimately the process achieved its aims. The legislation is now enacted, and the mechanisms are in place. Both will serve as models for other jurisdictions as they develop their own voluntary assisted dying legislation’, Ms Verhoeven said. ^{na}

11 JUNE 2019

Shaking up value-based health care: how and why it can work in Australia

‘Everyone wants value from public and private spending in health care, but defining value is not a clear-cut exercise, and adopting strategies from other countries without considering local context rarely works,’ said Australian Healthcare and Hospitals Association (AHHA) Chief Executive Alison Verhoeven.

‘To lay the foundation for what value-based health care means in Australia, the AHHA launched the Australian Centre for Value Based Health Care in June. The Centre’s first publication, *Value Based Health Care: Setting the scene for Australia* by

AHHA Policy Director Kylie Woolcock recommends a national, cross-sector strategy for value-based health care in Australia supported by: access to relevant and up-to-date data; evidence for value-based health care in the Australian context; a health workforce strategy supporting models of care that embrace a value-based approach; and funding systems that incentivise value.

‘Team-based care models with professionals working at the top of their licence may offer more effective, timelier and better value care than traditional care systems.

AHHA in the news

‘Funding arrangements need to move away from a reliance on traditional fee-for-service models, which can entrench fragmented care. Rewards and funding should be re-oriented to what matters to patients, namely health outcomes and ongoing effective management of chronic conditions.

A second AHHA paper, *‘Re-orienting funding from volume to value in public dental health services’* by Dental Health Services Victoria’s Dr Shalika Hegde, outlines how they became the first organisation in Australia to implement a patient-centric, and outcomes and prevention focused value-based health care model in the public dental sector using existing funding.

Said Ms Verhoeven, ‘Dr Hegde argues for strong national leadership and the cooperation of all jurisdictions to implement a national public dental funding system focused on value and outcomes—which will benefit all parties.

‘This is not about saving money—this is about achieving better outcomes that matter to patients and getting better value for every public dollar spent.

Visit the *Australian Centre for Value-Based Health Care* at www.valuebasedcareaustralia.com.au. 

5 JUNE 2019

Aiming for value and quality care: June 2019 Australian Health Review

In ‘Towards a strategy for clinical quality registries in Australia’, published in the June 2019 edition of the *Australian Health Review*, Ahern and others note that Australia boasts world-class clinical registries with a focus on quality and safety, in areas including trauma and critical care, prostate cancer and joint replacements. The authors advocate for improved governance, funding and data, and a leadership role for the Australian Commission on Safety and Quality in Health Care.

Safety and quality are also the focus of a paper by Walton and others on disclosure of adverse events. Although national open disclosure standards have been in place since 2012, a study conducted in NSW hospitals found that most patients received informal disclosures. The authors recommend that guidelines be developed to help clinicians improve their communications about adverse events.

Electronic medication management systems

(eMMS) are widely viewed as being key to improving medication safety. In ‘Review of medication errors that are new or likely to occur more frequently with electronic medication management systems’, van de Vreede and others found that while eMMS technology removes many medication errors, it is not a panacea and continuous monitoring of errors is important.

Research on community views on medicines expenditure by Chim and others found that the Australian public considers disease severity to be the most important priority for government spending on medicines, followed by medicines used to treat children or to treat cancer.

According to a study undertaken by Ling and others, a reduction in avoidable hospitalisations for acutely unwell people in residential aged care can be achieved by a multi-component program that includes telephone triage services. 



**PROFESSOR
MEREDITH MAKEHAM**
Chief Medical Adviser,
Australian Digital Health
Agency

Australia's pathway to realising the benefits of digital health technologies

Technology continues to revolutionise every facet of medical treatment, transforming the relationship between provider and patient and ushering in an exciting new era of healthcare. Innovation in healthcare is helping Australians to live healthier and happier lives.

Through our contributions to the National Digital Health Strategy, Australians made it clear we want a healthcare system which places us at the heart of our care, gives us more choice and control, and provides us with access to our own information. We're aiming for better health outcomes and safer experiences when interacting with the health system.

For healthcare providers like myself, engaging

with technology may disrupt the way we work and require us to change if we want to embrace these benefits. We have a shared responsibility to ensure that the arrival of new technologies complements and enhances the way we deliver care.

The role of government in the delivery of digital health technology has become a global discussion. In February 2018, Australia initiated the Global Digital Health Partnership (GDHP), involving more than 25 participating countries and the World Health Organization. This international partnership accelerates our approach to improving healthcare for Australians through the provision of digital health services in a range of areas including policy, cyber security and interoperability. >

Hit the ground running

As the Australian Digital Health Agency celebrates its third birthday, it's encouraging to reflect on the progress we've made in delivering Australia's National Digital Health Strategy. The Strategy is an important milestone for Australia, endorsed by the COAG Health Council in 2017, providing a shared understanding of how Australians want digital health services to support their healthcare over the next four years.

The first pillar of the strategy is My Health Record. Over 90% of Australians now have access to and control of their key summary health information securely in one place. It also allows their connected healthcare providers to see accurate data in real-time, supporting safer care and better-informed decision making.

The clinical value of My Health Record has vastly increased over the past three years. The majority of pharmacies, general practices and Aboriginal health services are now connected, and more than 900 hospitals share information across every state and territory.

Pathology and Diagnostic Imaging in the public and private sectors are increasingly connecting, and there are more specialists and allied health clinicians registering weekly.

My Health Record also provides immunisation information from our national repository, and allows people to add their own notes, medicines, allergies and Advance Care Plans.

All of this adds to the richness of My Health Record as an important information resource.

Driving Medicines Safety

Another key pillar of the National Digital Health Strategy is medicines safety. A number of advances, including My Health Record and other parts of our national digital health infrastructure, support the safer use of medicines.

Alarming, a recent Pharmaceutical Society of Australia report (www.psa.org.au/wp-content/uploads/2019/01/PSA-Medicine-Safety-Report.pdf) highlighted that 250,000 hospital admissions per year directly result from medication-related problems, and 90% of patients experience at least one medication-related problem post-discharge. This issue costs the Australian economy \$1.4 billion annually and people suffer avoidable harms, yet an estimated 50% of these incidents are preventable.

New features in My Health Record have advanced the ability of people and clinicians to minimise medication-related avoidable risks. A comprehensive 'medicines view' document pulls medicines information together from all connected systems, breaking down barriers that currently impair our ability to share details between pharmacy, general practice, hospitals and Aged Care facilities.

There is also a new 'Pharmacist Shared Medicines List' (PSML); a curated list of all medicines a consumer is known to be taking, including prescribed, over-the-counter and complementary, as well as allergies and adverse drug reaction information.

“The focus for the Australian Digital Health Agency is now on accelerating the use of My Health Record, improving understanding for people and their healthcare providers.”

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Looking ahead

We have accomplished much in a short time, but it’s important we continue to work with people—in the community, across governments, industry, academia and the healthcare sector—to continue to develop and embed digital health systems in the way we work.

The focus for the Australian Digital Health Agency is now on accelerating the use of My Health Record, improving understanding for people and their healthcare providers.

We need to continue to build evidence that our public investment in digital technology is delivering better health and care outcomes and value to society.

We’ve recently launched a national consultation on the future standards for interoperability to develop a blueprint for a more modern, digitally connected health system. We’ve reached a landmark industry agreement on secure messaging standards to enable digital clinical correspondence, and we’re supporting clinical software providers to help work on how this can be implemented in everyday practice.

Digital health services are changing the way we work as healthcare providers and empowering us with better access to our own healthcare information as consumers. We are looking towards a future that is rapidly bringing us advances in healthcare technologies such as genomics, AI and machine learning. We need to embrace these opportunities and continue to build a national digital health infrastructure that can support change and innovation.

Through this, we can harness the benefits of technology for people and support Australia in its journey as a global leader of digital health. 



MS JULIE LI
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**PROFESSOR ANDREW
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Institute of Health
Innovation, Macquarie
University Services

Reducing error with diagnostic informatics

Up to 70% of critical clinical decisions leverage information generated by laboratories—but the US ECRI Institute (formerly Emergency Care Research Institute) identifies diagnostic stewardship, and test result management using electronic health records, as its top patient safety concerns for 2019.

While diagnostic testing (pathology and medical imaging) generates information that is crucial to the prevention, diagnosis, prognosis, stratification of risk and treatment of disease, diagnostic error occurs when there is a failure to: (a) establish an accurate and timely explanation of the patient's health problem(s); or (b) communicate that explanation to the patient.

Diagnostic error is a major contributor to problems related to the safety and quality of healthcare, contributing to approximately 10% of patient deaths and accounting for 6% to 17% of

hospital adverse events.¹

The Diagnostic Informatics team at the Australian Institute of Health Innovation, Macquarie University, aims to reduce diagnostic error. The team looks at the role that information technology (IT) plays in generating, gathering, integrating, interpreting and communicating clinical test data and information. It examines the pivotal role of pathology and medical imaging in the clinical decision-making process, underpinned by the generation and communication of digital clinical information.

The entire diagnostic process is covered, beginning with the selection of the right test/referral to address a clinical question through to the interpretation and follow-up of test results and their impact on patient care outcomes and the value of care.



Laying the foundations for effective, safe and quality patient-centred care.

Finding effective solutions to diagnostic error

There are multiple factors which can contribute to diagnostic error including: problems with collaboration and communication among clinicians, patients and their families; lack of infrastructure to support the diagnostic process; and inadequate attention to understanding the problem and its causes.¹

The diagnostic process is not a single task, but rather a series of tasks that involve multiple people across the healthcare spectrum. Effective solutions must engage all stakeholders to arrive at decisions about who needs to receive the test results, how and when the results are communicated, and how they are acknowledged and acted upon.² Meeting these challenges requires the establishment of robust and resilient

partnerships between managers, clinicians, pathology and medical imaging departments and health care agencies, and must include the involvement of patients.

Our research team has developed a program of work designed to involve healthcare consumers as members of a Consumer Reference Group as partners and co-developers of the research agenda to drive safer and more effective test result management systems.

Test result management and follow-up—an international priority

The World Health Organization's World Alliance for Patient Safety has identified poor test-result management as an international high-priority patient-safety area. Systematic reviews have shown that pathology and imaging test results are not followed up for 20-62% of inpatients, and for >

“Our research team has developed a program of work designed to involve healthcare consumers as members of a Consumer Reference Group as partners and co-developers of the research agenda to drive safer and more effective test result management systems.”

up to 75% of patients treated in the emergency department.³

IT has a key role to play in the communication and follow-up of test results, and several electronic applications have been developed to support test result management processes. These include systems that can track pending test results at hospital discharge, deliver result alerts to clinicians, act as safety nets in result notification or use tracking systems to document acknowledgement and clinical actions.

Diagnostic informatics in action— the rapid flu test case study

Australia is facing its worst flu season in a decade. Our Diagnostic Informatics team, in partnership with NSW Health Pathology and the Prince of Wales Hospital, Sydney, used sophisticated data linkage methods and advanced statistical techniques to evaluate the implementation of a rapid flu test.

Performing sophisticated data linkage such as this provides opportunities for leveraging the vast quantities of information already held in existing datasets. Prior to this, evidence about the rate and frequency of the provision of diagnostic tests in hospitals and their impact on patient outcomes has been elusive. Poor integration of electronic systems has failed to overcome issues associated with the existence of hospital data silos, which limit the ability to generate meaningful analyses that link tests and referrals to the different components of the patient journey (e.g. treatment and outcomes).

We linked and analysed sets of routinely collected patient and laboratory data across four emergency departments. Our partnership team found that 67% of patients received results from their rapid flu test before leaving the emergency department—compared with 1.3% who received results before leaving after having the conventional test.⁴

Expedited result availability meant patients could be accurately diagnosed while in the emergency department, preventing unnecessary hospital admissions and alleviating pressure on already busy hospitals.

The study findings also indicate that rapid flu testing supports improved infection control and allocation of hospital resources by avoiding additional laboratory tests and potentially inappropriate treatments. ■

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DANIËL ERASMUS
Insight Actuaries

Maps for healthcare

What if Google maps could help me live longer?

‘You have reached your destination’

This simple phrase has become the quintessential theme of the modern travel experience. It marks the end of millions of journeys every day as we are guided via the blue thread on our LED screens through unfamiliar roads, towns, neighbourhoods and inner-city traffic jams. It has become the all-seeing eye of efficient navigation and the fortune teller of the estimated time of arrival.

The concept for Google maps came from an Australian-based firm. The premise is simple: real-time navigation, leveraging the experiences of others and their data to get you where you need to be, on time and via the most efficient route.

Google maps can do this thanks to the symbiotic relationship between its users. That red portion of your route represents folks like you, that are currently stuck in traffic. We are all too happy to use their experiences and share our own to avoid that same jam. We willingly hand over control, share data and engage in the innovation that is Google Maps. In return we can see exactly which turnoff or side street we should take for the best outcome.

Yet when it comes to healthcare, many shudder at the idea of sharing data. We revert

to the equivalent of a fold-out map with a single curator of our journey, travel time and even the very destination we can aspire to reach from a given diagnosis.

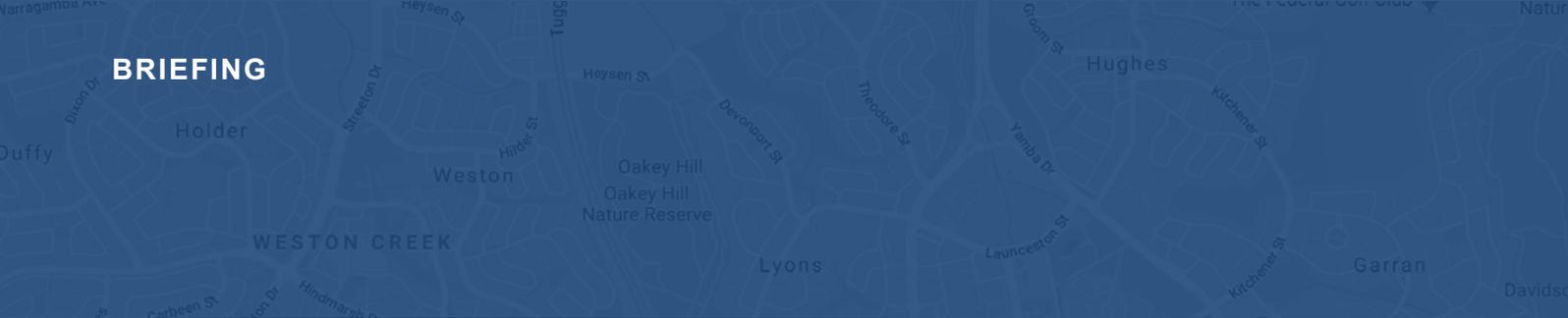
There are many reasons for this. Health is deeply personal, possibly embarrassing, extremely complicated—and scary, especially when it starts going downhill. Many also fear the risk of their data being used against them with higher premiums, lost job prospects and a host of other factors being cited as potential pitfalls of data sharing.

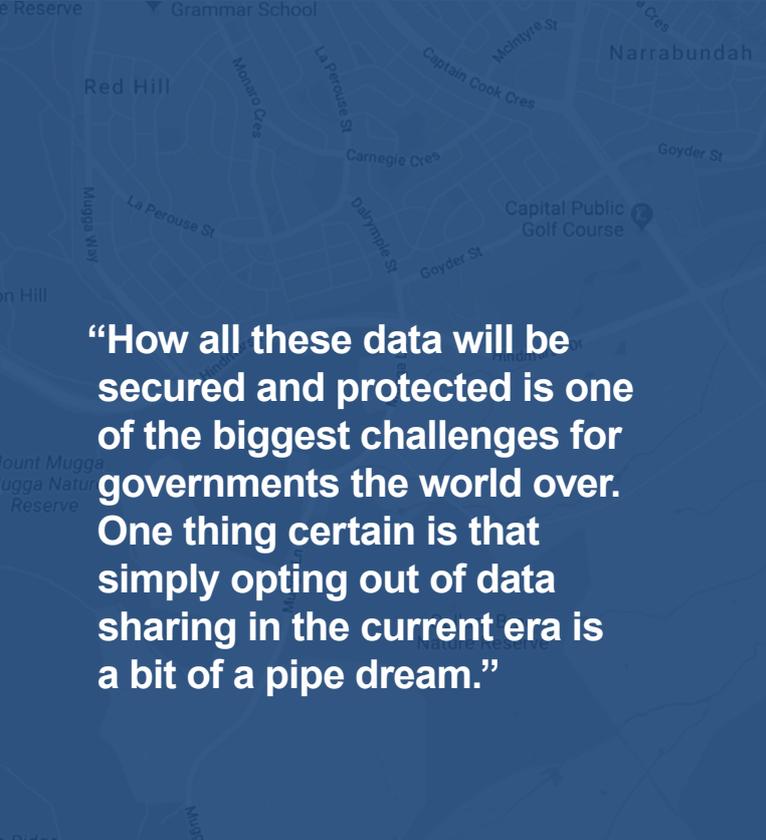
Google maps for healthcare?

But what if we could interact with the healthcare system in the same way as we do with Google maps? What if we could plot a destination to the healthcare outcomes we aspire to achieve and plan the ideal route using the experiences of others like us to curate our own unique journey?

That vision is coming into focus more and more with the growth in technology that can support our journey through the healthcare system, and the dawn (or rather the early morning) of the information age. Innovations abound, such as:

- wearable digitised blood glucose monitors that enable a more active and safer life for diabetics; >





“How all these data will be secured and protected is one of the biggest challenges for governments the world over. One thing certain is that simply opting out of data sharing in the current era is a bit of a pipe dream.”

the Google maps reality for healthcare. But that reality will require the same symbiotic principles to be adopted regarding our healthcare data. Data that are many times more sensitive than driving habits...are we ready for that?

Medical data for a healthier life

Medical data are now a hot commodity, with many tech giants scraping everything from internet searches to actual medical records for as much clinical information as possible.

For many, the reaction to this is to try to protect themselves by ‘opting out’. But is this feasible in the information age? According to international futurist and strategic business and technology adviser Bernard Marr, in 2018 we were producing 2.5 million quintiles of data each day. The exponential growth in data-producing technology, apps and wearables have led to an explosion of personal data. It is estimated that 90% of all the data in the world was generated in the last 2 years.

How all these data will be secured and protected is one of the biggest challenges for governments the world over. One thing certain is that simply opting out of data sharing in the current era is a bit of a pipe dream.

We don’t need to figure out IF we are sharing data. You, me and all of us already are. Simple acts like searching for a movie on the internet or setting your alarm on your smartphone is sharing data and are some of the nuggets that those data scraping algorithms are after.

Perhaps what you should be thinking about and asking is whether your data are sharing with you. And, is it perhaps possible that understanding your own data more effectively and accurately can help you take the best, traffic-free route to a longer and healthier life? 

- software applications that track, connect and actively influence the mental state and mood for those suffering through depression via music;
- virtual reality that enables surgeons to practise a complicated surgery on an exact replica of the patient; and
- personal assistant and companion robots for the sick or elderly that monitor a range of triggers, from fever to medication adherence and mental state.

These and other technological developments are creating new sources of data and a shared perspective on what it means to be healthy in the modern data age. As an actuary, I know the value of good data. The growth of technology like machine learning and artificial intelligence holds immense promise for our ability to understand our minds, bodies, and health more deeply. It also enables us to consider the links between different data sources and how they fit together.

Having had the opportunity to work on a platform that integrates and combines various types of data in one place and enables one to consider the links between health, physical activity, financial, behavioural and personal data, I am more certain than ever that we are close to



PETER O'HALLORAN
Chief Information Officer,
ACT Health Directorate

Clinicians help drive ACT's digital health transformation



A new Digital Health Record for the ACT

In the Australian Capital Territory (ACT) we strive to deliver person-centric care to our community. Our jurisdiction is relatively smaller than others and means we are well-positioned to make significant inroads to deliver a healthier population territory-wide and better-targeted health services to improve efficiencies and health outcomes.

A significant contributor to this vision for person-centric care will be our new Digital Health Record.

“The ACT Government is investing \$106 million into the Digital Health Record with an eight-year plan to transform health care through digital innovation.”

Granted, most jurisdictions are already moving in this space and achieving great outcomes for the benefit of patients and respective broader health systems. But here in the ACT, we have the capacity to create a system where anyone accessing ACT publicly-funded health services will have their treatment journey mapped and tracked through their own Digital Health Record. This means, information flows with the patient rather than the information being stored in a clinical place.

The ACT Government is investing \$106 million into the Digital Health Record with an eight-year plan to transform health care through digital innovation. It forms part of a comprehensive Digital Health Strategy 2019-29 that is re-creating and establishing agile health services in this digital age over the next 10 years.

Digital Health Record vs My Health Record

The Digital Health Record is a comprehensive record that will be much more detailed than the

My Health Record, which is a summary of key health information.

For example, the Digital Health Record will include data on observations performed by clinicians, and details about who administered a medication and at what time, as well as information feeding from devices such as infusion pumps or blood pressure monitors.

The Digital Health Record will include information such as which person is in which bed and which surgeon will be operating on which person in each operating theatre.

Clinically-led, technology-facilitated

Unlike most massive and highly complex long-term technology projects of this nature, the ACT Digital Health Record is not being treated as an information technology implementation program. Instead, the approach from the outset is to manage this as a clinical transformation program facilitated by technology.

To do this, the ACT Health Directorate is engaging and embedding clinicians throughout the life of this program, including the recruitment of a Chief Medical Information Officer and a Chief Nursing Information Officer. These roles will be critical in driving change in the clinical workforce, and on understanding the impact of proposed changes on clinical workflows. They will ensure the program is clinically-led rather than determined by technology.

Ultimately the vision is to develop a system with which patients will have greater opportunities to be engaged with their own care, and where they can access their own information through a portal or mobile app to help them manage their interactions with the ACT's public health system.

In the future this will mean that people may be able to talk to their healthcare team through virtual appointments, and will be able to review or schedule appointments, access patient education and contribute information to their record. >

“Their clinical teams shared their patients’ frustrations of managing such long-term complex care in a paper-based system.”

In essence, while health care teams will be contributing to and managing a patient’s care, so too will patients as they contribute to and manage their health, whether that be at home, in hospital or through a community health program. The opportunities are endless for recording essential and fundamental patient information. There is also no doubt this technology has the potential to reduce unnecessary investigations, duplicated diagnoses and missed treatment opportunities, simply because the information is now at the click of a button.

Giving patients easier access to manage their healthcare through the click of a button, will also give patients a more responsive health journey to better suit the day-in and day-out demands of living with a chronic condition. Just imagine a patient with diabetes being able to input daily readings from their Continuous Glucose Monitor directly into their health record, providing their clinical team with vital insights and trends that will in turn enable more tailored treatment and improve overall health outcomes for their patient.

In addition, the broader access to this record for clinical teams between ACT public hospitals and ACT community health care teams means the right information is available at the right time without the hassles of chasing up the latest record, clinician or clinic holding a patient’s health history. The Digital Health Record is also expected to give clinicians an efficient way to access all health information on a patient regardless of the speciality or physical location.

Enabling holistic, seamless, person-centred care

Essentially, this is the holistic, seamless, person-centred care we can deliver and should deliver

for our community. And that is now being made possible through technology, backed by government investment.

Other advantages of the Digital Health Record are the future potential to capture information on public health initiatives such as vaccination programs, as well as collect information on social determinants of health. Capturing this information is so important in the treatment of the person individually rather than treating each element of their healthcare in isolation to other important and contributing factors.

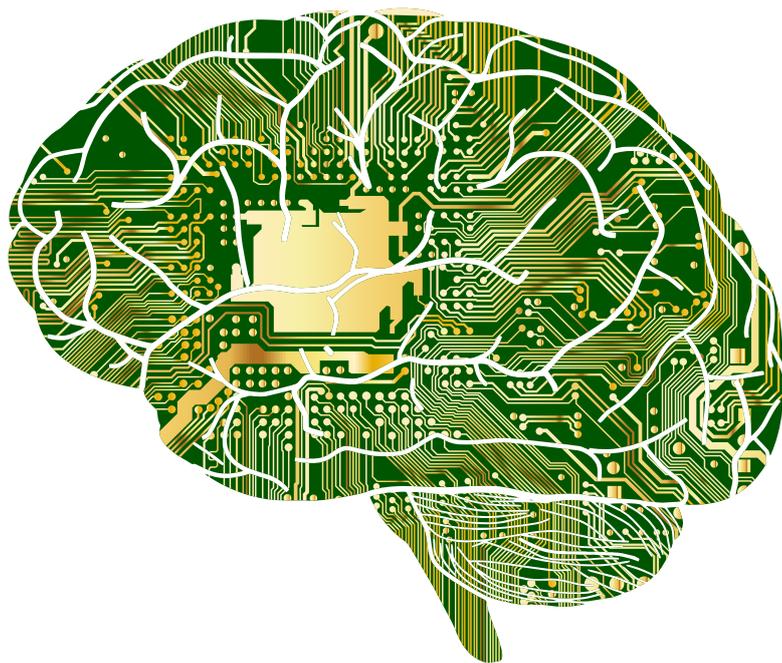
In launching the Digital Health Record project recently, two patients shared their story—describing the reality of what it’s like to live with a chronic illness and navigate the complexity of the health system. The picture they painted was one of keeping daily handwritten journals outlining their appointments, the many conversations they have on a weekly basis with different treating teams and the management of several medical prescriptions. They described the feeling of responsibility to ensure their clinical teams are up to date each step of the way and the challenges of doing this. Their clinical teams shared their patients’ frustrations of managing such long-term complex care in a paper-based system.

These are the patients who cannot wait for the Digital Health Record, which will allow them to focus more on their recovery and monitoring their health, rather than recording repetitive information that’s lost within the many pages of their critically important paper journals. 

More information and the latest updates on this exciting initiative are available at health.act.gov.au/digital/dhr.



**ASSOCIATE PROFESSOR
CHRISTOPHER PEARCE**
Director of Research,
Outcome Health



Creating patient-centred data

The new health frontier.

A meme in the modern world is that ‘data is the new oil’, and indeed, this is true particularly in health. The increasing digitisation of healthcare and its data is both opening up possibilities and exposing weaknesses in the current system.

A particular weakness is the jurisdictional and organisational limitations to sharing data. This is no longer acceptable. We have a moral imperative to ensure that data follow the patient in various forms. This article outlines our organisation’s approach.

The Outcome Health data journey

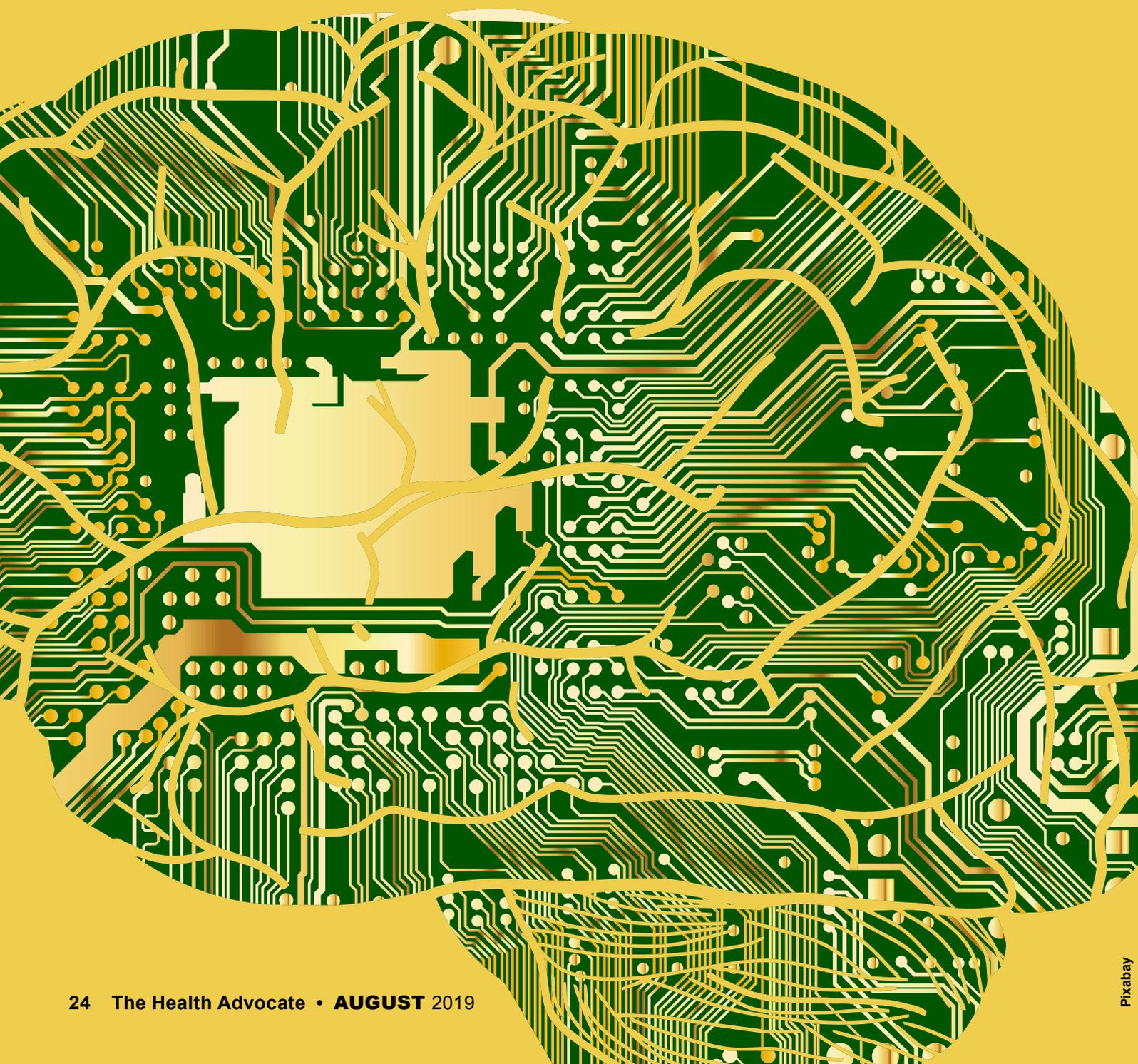
Outcome Health started out as a division of general practice, and 15 years ago developed a process for extracting and processing data for traditional quality assurance (QA) activities at the practice level. From there the program has developed and expanded. Outcome Health is now a not-for-profit

that provides data analytics to multiple Primary Health Networks in Victoria and New South Wales and their constituent general practices, covering about 25% of the Australian population.

The POpulation Level Analysis and Reporting (POLAR) program uses an integrated governance framework to make the GP data available and useful for multiple purposes.¹ Moving beyond the concept of ‘secondary use of data’, it understands that all uses of data are valid, across the multiple levels of use cases, namely: patient identification (used for linkage); patient care; clinical governance (of which QA activities are a part); population health; research; and administrative/business purposes.

So, for example, a diagnosis of diabetes in a patient, and concomitant tests and medications are recorded in the GP system attached to patient identifiers and used by the GP for the care of >

“We are currently working to establish linked data with local hospitals and state health, and hopefully pharmacies and other healthcare entities. We do not underestimate the challenges. Ethics and consent are significant issues, especially when we move to creating personalised recommendations on the basis of identified data.”



that patient. QA activities allow GPs to monitor their own performance and practice against established guidelines. The PHNs use the same data to monitor trends and design services. Universities can use the data to trial new treatments and care pathways, and so on. All of this is facilitated by the POLAR program.

Moving to patient-centred data

The fault with this system lies in the narrow focus of the data—in that it is GP data only. While most of the population see a GP each year, and most healthcare in Australia occurs in general practice, it still remains a partial view.

For many groups (e.g. those who are homeless, Indigenous Australians, people with complex diseases such as cystic fibrosis), general practice is a much smaller part of their care. Also, over a multi-year period, many more people will have encounters with hospitals, allied health services, and other healthcare services. So, to truly deliver excellent care, we must now develop a patient-centred rather than provider-centred view of their data.

Programs such as the national My Health Record are an early step. Aimed at collating health information from multiple sources, patients (and their health professionals) can at last see information from multiple providers, and in the case of pathology and radiology, see reports that in the past would be denied to them.

This needs to change even further. Using the principles of comprehensive integrated data governance above, simple access to patient data is not enough. Let us take as an example our POLAR Diversion program, aimed at reducing the burden of emergency admissions.

Many programs aim to reduce hospital emergency department attendances—it benefits both patients and the health system. POLAR Diversion took a different approach using data (and linked data) in ways hitherto unthought of.² First we linked several years of hospital emergency department attendances to our GP data, then we mapped the general practice journeys of those patients. Using machine language, we then worked to develop a program that would be able to warn of a risk of emergency department attendance within the next 30 days.

The endpoint has been a program that effectively ‘pops up’ a warning of risk of ED admission, in the GP clinic at the time of consultation. GP and patient can then decide on a path to avoid this.

We are currently working to establish linked data with local hospitals and state health, and hopefully pharmacies and other healthcare entities. We do not underestimate the challenges. Ethics and consent are significant issues, especially when we move to creating personalised recommendations on the basis of identified data (we only use de-identified data at the moment). Verifiability and reliability are also issues. But it is no longer acceptable to not embark on this journey. It is the patient’s data, and it should follow them for all the purposes outlined above. 

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DAVID BUNKER
Executive Director,
Queensland Genomics

Going digital

Our health system is at an important point in history with the ongoing convergence of electronic medical records, genomics, biosensors, smartphone-based health and wellness apps, and clinical information exchange supporting the journey of healthcare consumers through a rapidly digitising health system.

The enormous volume of clinical and experience data being generated now through normal, everyday health interventions is difficult to comprehend, presenting challenges and opportunities. How will we value these data, and how will we make best use of it?

The value of data

Large multinationals have demonstrated the value of data collection when it is converted into useful information coupled to commercially viable products and services. So, how can our health system leverage the data collected through

everyday healthcare and do this in a manner that supports the emergence of a true learning health system, combining precision medicine and implementation science?

In 2018 the total amount of data created worldwide was 33 zetabytes,¹ or 33 trillion gigabytes. In 2015, the volume of healthcare big data created was 4.4 zetabytes. In 2020, we will create 44 zetabytes of health data, a 10-fold increase. Making sense of this much data is tough, just in terms of the volume. If the projections are correct, the data generated next year—not stored or used, just new data—will be equivalent to 880 billion Blu-ray discs. Or in physical terms, 44 million human brains, or 97 grams of DNA.

Business analytics capabilities and emerging Artificial Intelligence applications are now fundamental to make sense of the overwhelming amount of data being created. A serious shift in our attention to these data is required to consider

Designing a precision-oriented learning health system in Australia.

its longitudinal management and application. Importantly, we must work collaboratively to develop and roll out tools that use integrated systems to present these data as useful information that helps clinicians, improves their workflows, and supports health system administrators and policy-makers to deliver high quality, cost effective healthcare.

Healthcare as a learning system

Healthcare can be described as a complex adaptive system because it is non-linear, dynamic, and composed of independent actors with conflicting goals, with adaptation occurring through self-learning. We need to shift the mindset to healthcare as a learning system, where science, informatics, incentives and culture are aligned for continuous improvement and innovation, with ongoing change seamlessly embedded into health service delivery. Data when managed for its long-

term value, as well as short-term function, is a primary driver for this shift to a learning system, supporting the progression of data to information that guides wise decision-making.⁴

Managing the abundance of health data can be helped by the field of implementation science, and recognition of the multilevel context of data in terms of its collection, access, use and disclosure—the tenets of good data governance and information sharing principles.

A focus is now required to move beyond the paradigm we have in health information management today where data is seen as a cost centre—because paper records were expensive to use and difficult to leverage into new knowledge.

Data and precision medicine

In healthcare delivery on a digital platform, once the doctor and patient have completed their interaction, the job of the data is not done. >

“This new perspective and value of data will enable an evolution of the evidence base supporting precision medicine, and the optimal use of genomics and behavioural data to inform clinical and patient decision-making.”

This new perspective and value of data will enable an evolution of the evidence base supporting precision medicine, and the optimal use of genomics and behavioural data to inform clinical and patient decision-making. And of course, this challenges health policy in terms of funding, as we move beyond measuring activity to fully considering value and outcomes.

Targeted digital solutions, with agile operational capability, are required to support medical research and clinical delivery in a joined-up approach. Secondary uses for data are almost always present in digital solution business cases, yet little thought is put into how the secondary use and therefore value creation for data collected will actually work in practice.

With the abundance of data being generated

in our digital solutions, we must now acknowledge that the most important secondary user of the data will be the organisation that collects the data. In turn this will enable a learning health system that is ‘able to correlate innate and external factors at an individual level, to better understand the pattern of disease and its impact on that individual and thus to tailor prevention, intervention and treatment’² which is fundamental to the delivery of precision medicine. 

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CHRISTINE ZAHREN
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The ClinTrial Refer mobile app and website platform

Increasing visibility of trial sites and access to current clinical trials.



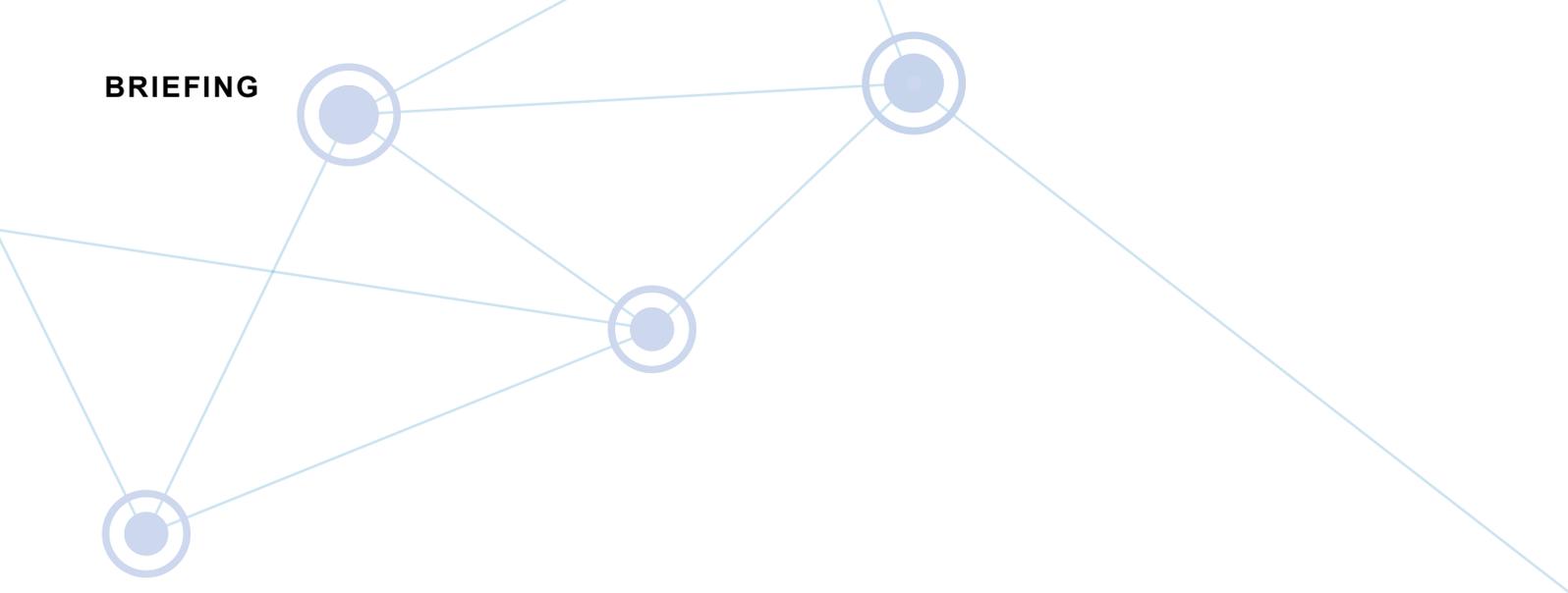
Professor Judith Trotman, Head of Department, Haematology, Concord Hospital; Senior Staff Specialist, Concord Hospital; and Ms Roslyn Ristuccia, Co-Founder and Executive Manager at ClinTrial Refer, St George Hospital.

Timely participant recruitment into clinical trials has longstanding and complex challenges. Stringent protocol eligibility criteria and onerous visit schedules are just some of the problems that can interfere with successful participant recruitment.

Two key reasons for insufficient accrual relate to poor access to, and awareness of, open trials. Around 90% of clinical trials experience recruitment delays in Australia¹ and this statistic is similar and true for trials around the world today.

Siloed solutions tailored to individual studies exist, but have proved insufficient to deal with the scale of the problem as a whole, as well as with the varying challenges posed by individual stakeholders and trials.

>



“A unique feature of the platform is that research sites are able to load trial data in real time. Thus ClinTrial Refer delivers current and comprehensive listings of recruiting trials across a variety of disciplines and locations. It can be downloaded free from the Apple App Store and Google Play.”

What is ClinTrial Refer?

ClinTrial Refer, originally launched in May 2013, is a mobile app and website platform that helps connect patients and healthcare professionals to current clinical trial information. It facilitates the connection of individuals to studies with interventions that have the potential to help them.

ClinTrial Refer has made a significant impact in the health sector, particularly for patient outcomes and in the uptake of cross-referrals and recruitment to clinical trials. It was co-invented by Professor Judith Trotman, Head of Department, Haematology, Concord Hospital and Senior Staff Specialist, Concord Hospital and Ms Roslyn Ristuccia, Co-Founder and Executive Manager at ClinTrial Refer, St George Hospital.

After the May 2013 launch a nine-fold increase in cross-referrals and a 63% increase in recruitment was observed across the network of 19 participating clinical trial sites. Following on from this success, ClinTrial Refer was made available as a template for other disciplines and has subsequently expanded to include a website,

22 derivative apps and over 850 trial sites across Australia as well as several international sites.

A unique feature of the platform is that research sites are able to load trial data in real time. Thus ClinTrial Refer delivers current and comprehensive listings of recruiting trials across a variety of disciplines and locations. It can be downloaded free from the Apple App Store and Google Play.

Upgrade on the way

ClinTrial Refer will launch an upgraded version of the app at the Australian Clinical Trials Alliance (ACTA) International Conference in Sydney on 3 October 2019.

The upgraded version will improve quality, reduce duplication across multiple apps, enable global searching, allow for discipline-specific fields to be introduced as trial types evolve, and reduce recruitment costs.

Guided by input from experts and mentors, the new version will also include phase 1 cohort management so that eligibility criteria for pending cohorts can be viewed before they are open to



Michael's story:
www.youtube.com/watch?v=a9PoV8Jbj7c

recruitment. Advanced search filters will enable users to find trials using filters for gene mutation, tele-trials (useful for rural populations), healthy volunteers, and age criteria (for newborn, children's trials, and for the adolescent and young adult population).

The Australian Commission on Safety and Quality in Healthcare (ACSQHC) will soon be introducing a new National Clinical Trials Governance Framework that aims to provide a nationally consistent accreditation approach. Accordingly, it sets out

processes and other requirements that need to be met by organisations conducting trials. ClinTrial Refer is well positioned to assist hospitals and other health service organisations in meeting some of the new requirements. ^{1a}

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HealthPathways guiding oral health management in primary care

From 5-11 August 2019, the Australian Dental Association will be raising awareness about the importance of maintaining good oral health during Dental Health Week (www.ada.org.au/Dental-Health-Week).

According to the Australian Institute of Health and Welfare, between 2016 and 2017 there were more than 70,200 hospitalisations for dental conditions that could have been prevented with earlier care. (www.aihw.gov.au/reports/den/231/oral-health-and-dental-care-in-australia/contents/summary)

Last year's World Oral Health Day revealed that Australia had failed its very first Oral Health Check (www.sbs.com.au/news/australia-fails-its-oral-health-check-up) with only one-half of adults brushing their teeth twice a day as recommended.

While recent media attention has focused on Australians waiting for between 20 months and 3 years ([www.abc.net.au/news/2018-08-07/victorian-dental-patients-facing-excessive-public-](http://www.abc.net.au/news/2018-08-07/victorian-dental-patients-facing-excessive-public-waiting-list/10079368)

[waiting-list/10079368](http://www.abc.net.au/news/2018-08-07/victorian-dental-patients-facing-excessive-public-waiting-list/10079368)) to see a dentist in the public system, HealthPathways Melbourne (<https://melbourne.healthpathways.org.au/>) has responded by providing oral health resources for general practitioners (GPs), who are often the first port of call for dental problems.

Empowering GPs to manage dental health issues

HealthPathways is a clinical resource for GPs and other primary care professionals. It was developed by the Eastern Melbourne Primary Health Network (EMPHN) and North Western Melbourne Primary Health Network (NWMPHN). The aim of HealthPathways is to lessen variations in treatment by communicating the right information for appropriate clinical assessment, management, treatment or referral.

With over 660 pages on topics ranging from Oral Health to Paediatrics, HealthPathways Melbourne works to inform the over 2,000 health professionals

who view the website on a monthly basis in EMPHN and NWMPHN's catchment.

The first Oral Health pages went live in December 2018 and were updated in May 2019 with expert clinical contributions from Dental Health Services Victoria, and in particular specialist staff at the Royal Dental Hospital, Melbourne.

The Pathways materials aim to:

- assist doctors to treat simple oral health conditions in primary care before referring to a dentist
- increase awareness of public services in the area that treat both acute and non-acute dental conditions
- educate general practitioners on the priority groups who should not face delays obtaining care in public dental services
- advise stakeholders of the best and most up-to-date guidelines for oral health.

It is our hope that these pages will help GPs work with patients and give them the resources to assist in the care of their patients' oral health, and recognise the relative urgencies for care.

The initial Oral Health pages embrace the following topics:

- Temporomandibular Joint Syndrome (TMJ/TMD) (<https://melbourne.healthpathways.org.au/index.htm?27535.htm>)
- Antithrombotic drugs and dentistry (<https://melbourne.healthpathways.org.au/index.htm?31553.htm>)
- Acute or Chronic Dental Pain (<https://melbourne.healthpathways.org.au/28193.htm>)—includes resources on toothache, pulpitis, infected root canal systems, dental abscesses and dry sockets
- Antiresorptive agents and dental care (<https://melbourne.healthpathways.org.au/27284.htm>)—including important new guidelines from Dental Health Services Victoria
- Trauma to teeth or jaw (<https://melbourne.healthpathways.org.au/31551.htm>)—including

information on fractures, trismus, facial swelling or deformity and avulsed teeth

- Oral Lesions, Ulcers and Infections (<https://melbourne.healthpathways.org.au/27507.htm>).

The Pathways also assist with referral to tertiary services and include valuable information such as emergency or priority access, wait times and after-hours availability:

- Immediate Dental Referral or Admission (<https://melbourne.healthpathways.org.au/106273.htm>)
- Urgent or Routine Dental Referral (<https://melbourne.healthpathways.org.au/106275.htm>)
- Immediate Oral Maxillofacial Referral or Admission (<https://melbourne.healthpathways.org.au/106350.htm>)
- Urgent or Routine Oral and Maxillofacial Referral or Admission (<https://melbourne.healthpathways.org.au/106351.htm>).

GP's key to better dental health

Conversations continue around the implementation of a Medicare Benefits Schedule (MBS) item number for dental care in general practice, but we believe we can address many preliminary dental issues at the patient's first stop, their GP.

Dental problems if left untreated can develop into larger issues, affect cardiology and diabetes. With the HealthPathways digital resource a general practitioner has all the information needed to appropriately address the more common issues.

We believe this Pathway suite will help to inform primary care practitioners of the various options for referral in this geographical area and allow patients to have the best treatment possible.

GPs spend a lot of time looking into mouths, and additional Pathways in development will further assist in recognising and managing oral disease appropriately. 

For more information:

<https://melbourne.healthpathways.org.au>

Reducing trauma impact

Professor Kate Curtis is the winner of Nurse of the Year in the 2019 HESTA Australian Nursing & Midwifery Awards. She works for the Illawarra Shoalhaven Local Health District in Wollongong, NSW.

Kate is recognised for her work as a trauma nurse tirelessly advocating to reduce the impact of trauma injuries on patients and improve emergency hospital care across Australia and internationally, particularly for children.

Kate was instrumental in developing a National Injury Prevention Strategy. She is an internationally renowned emergency and trauma nurse clinical researcher, whose studies into injury prevention and treatment has improved clinical practice both in Australia and around the world.

“The most rewarding thing about this work is knowing that we’re making a difference through research and advocacy for this pandemic that is childhood injury. Injury is the leading cause of death and disability in Australian kids,” says Kate.

One of the most published emergency and

trauma nurses in the world, her evidence-based model of trauma care has improved equitable access to quality emergency treatment.

“Part of what I do is to ensure that everyone gets equitable access to emergency and trauma care so that no matter where you get injured in Australia you have the same opportunity for survival,” says Kate.

“Emergency and trauma care is an opportunity to help people at the worst time of their lives. It’s also an opportunity to apply science and clinical skills to save lives.”

Kate combines her clinical work with academic roles to produce ground-breaking studies on paediatric and emergency trauma care. Kate also founded the Childhood Injury Prevention Alliance (CHIPA) to improve injury treatment and



Professor Kate Curtis

“The most rewarding thing about this work is knowing that we’re making a difference through research and advocacy for this pandemic that is childhood injury. Injury is the leading cause of death and disability in Australian kids.”

prevention and tirelessly advocated for a national injury prevention strategy.

Kate says she will use the prize money to share her research with other clinicians.

“I plan to use the prize money to continue to develop emergency nursing education nights, which presents the latest evidence to clinicians so they can use that in their own clinical practice. This means our patients will then get the best possible care,” Kate says.

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hesta.com.au/join





FI MERCER
Founder & CEO,
Governance Evaluator

The top 5 governance risks identified by health boards

In 2018 Governance Evaluator surveyed over 70 boards and 700 board directors on organisational governance performance. Health, aged care, and government, not-for-profit and community boards were among those included. Responses were analysed and presented in our *Governance Evaluator 2018 Governance Capability Benchmark Report*.

Due to the differing challenges faced by different types of healthcare organisations, we analysed small, medium and large health services as separate cohorts, as well as community health services as another separate cohort.

Across health sector cohorts there was remarkable agreement on the top five governance risks, and every health cohort reported stakeholder engagement as its 'number 1' risk.

The top five governance risks identified by health boards were as follows.

Risk 1: Stakeholder engagement

Stakeholder engagement is reported as problematic for boards across the health sector, and indicates a need for targeted, focused reviews of current stakeholder management policies and processes.

With 41% of health board directors unsure or not satisfied with stakeholder communication processes, and 46% not confident that they manage stakeholder influence effectively, boards need help in engaging their own directors via a stakeholder engagement strategy that clearly identifies the organisation's key stakeholders, their relationships and their needs.

Many directors were unsure about their board's position and activity in this area.

Risk 2: Governance of clinical care

Many directors reported being either dissatisfied, unsure or qualified in support of their organisation's governance of clinical care,

Dissatisfaction was strongest in the areas of partnering with consumers (43% of health board directors unsure or not satisfied with performance), and board capability to lead a safe and quality culture, (34% of directors not confident).

“A low 38% of health board directors were happy with their organisation’s approach to strategic insight. Satisfaction with population health planning processes was also low at 49%.”

Concerns were also raised about knowledge and understanding of what the clinical risks actually are in the organisation, and how these were being reported and monitored.

Risk 3: Risk management and compliance

Around 64% of health board directors were satisfied that they had a risk management framework in place that detailed the organisation’s key structures and processes for risk management, including agreed risk appetite, procedures for reporting risk to the board and committees, staff roles and responsibilities, and cyber security.

Three in four directors (75%) stated that they, and their boards, understood their risk environment from both a business and industry perspective, and that there were appropriate systems in place to identify and manage these risks.

Nevertheless, a greater organisational focus on identifying top risks could be worthwhile, including clinical as well as financial risks. Regular reviews of industry-wide indicators, trends, benchmarks and commentary was also a possible area of improvement.

Risk 4: Continuous review and development

Directors consistently noted that there were opportunities to improve their processes for continuous review and development. While 58% were satisfied with their board’s evaluation, review and development processes, only 39% (for example) were confident about board oversight of their organisation’s remuneration framework.

Our suggestions included that boards undertake an annual review of their individual and collective governance capabilities, and ensure that their

CEOs have meaningful, targeted KPIs and agreed mechanisms for continuous development support and review.

The high proportion of directors reportedly unclear about their organisation’s remuneration framework (existence and appropriateness) was interesting.

Risk 5: Strategic direction

The overall message from the survey was that while strategic plans are developed in organisations, more work is needed to ensure they remain current and relevant.

A low 38% of health board directors were happy with their organisation’s approach to strategic insight. Satisfaction with population health planning processes was also low at 49%.

Directors themselves could take the opportunity to be more strategic in knowledge and understanding of their sector, and to set a formal program to regularly review and challenge the strategic direction, and monitor and clearly report on implementation of the strategic plan. Greater emphasis on population health planning is also needed to guide board decision-making. 

A more detailed analysis of these governance risks is available in the News section of the Governance Evaluator website (www.governanceevaluator.com/news/).

The 2019 edition of our Governance Capability Benchmark Report will compare findings to those of 2018. Of particular interest will be any changes attributable to government agency efforts in recent years to better engage consumers and stakeholders in delivering safe, high-quality healthcare.

Staff security awareness

Data breaches seem to be a regular feature in the news nowadays, especially since the Notifiable Data Breach (NDB) scheme came into force in Australia last year.

This higher frequency of articles announcing newly-hacked victim organisations gives an idea of the growing scale of the security problem – a trend that we at Foregenix have been talking and warning about for years.

Healthcare organisations have been a particular focus for hackers, given the often-stretched resources and large number of employees

with access to sensitive data. Big businesses, corporations and banks have the money and infrastructure available to put together a dedicated cybersecurity team. Healthcare organisations seldom have this luxury and therefore are perceived to be an easier target for attackers.

According to the latest quarter statistics (Q1 2019) from the Office of the Australian Information Commissioner, the health sector contributed by far the most data breach notifications in the quarter (27%), more than double the 2nd (Finance sector, 13%).

Table 2.A – Top five sectors by notifications in the quarter

Top five sectors	NDBs received
Health service providers ¹	58
Finance (including superannuation) ²	27
Legal, accounting and management services	23
Education ³	19
Retail	11

Source: OAIC - Notifiable data breaches quarterly statistics, Q1 2019.

1. A health service provider includes any entity that provides a health service within the meaning of s 6FB of the Privacy Act, regardless of annual turnover.
2. This sector includes banks, wealth managers, financial advisors, superannuation funds and consumer credit providers (regardless of annual turnover).
3. This sector includes private education providers only, as APP entities, and the Australian National University. Public sector education providers are bound by state and territory privacy laws, as applicable.

The best investment you can make in cyber defence.

The Report shows that both human error and attacker compromises targeting humans, such as Phishing and Ransomware, contributed the significant majority of the data breach notifications.

So what does this mean? Firstly, employees across the span of the entire organisation need to have cybersecurity training. Protecting data isn't just down to the IT department, it needs to be in the minds of every person in the organisation. Anyone with computer access to the company network, or physical access to a company building, is responsible in some way for security.

Hackers use sophisticated social engineering techniques to trick people into clicking links, downloading files and giving up details. You can have the best security defences in the world, but if your employees don't know how to spot a threat, the whole thing can crumble. This is the same in the physical world. Human beings are inherently kind and considerate in the most part; unfortunately the bad guys can use your "holding the door/elevator open" to get to facility locations they should otherwise be restricted from.

Training is key to keeping your network and premises secure.

Cybersecurity education needn't be an arduous task. There are a few easy methods to raise cybersecurity awareness:

- **Hold regular security meetings:** Put together an engaging and informative presentation to showcase emerging cybersecurity threats and how

to handle them. Holding a quarterly meeting to discuss cybersecurity will keep it fresh in their minds.

- **Start with security basics:** The most important threat for the majority of staff to be aware of are phishing attacks. Phishing attacks have evolved from poorly scripted emails to expertly crafted imitations of legitimate communications from businesses. Phishing attacks reportedly make up 73% of all malware delivered to organisations. Some awareness training on how to spot them can dramatically reduce the chances of a breach.
- **Make training relevant:** Password security, confidential waste destruction and data encryption are all important and easy to cover. If employees can relate the training to their day-to-day roles, then they can take it in and reduce the risk of breaches.
- **Set up a security policy:** Set out a security policy in plain English that avoids the use of jargon. Introducing your security policy as a part of staff induction can help to create a culture of awareness.
- **Adopt a "No first" approach:** When it comes to suspicious emails, staff should second guess requests for sensitive data and make sure the request is credible and from a trusted source. This applies to physical security also. Staff should check ID badges of personnel following them through open doors and be aware of "tailgating".>

“If something seems too good to be true, it probably is. Phishing scams will sometimes make bold claims to try and entice you to click a link. If it’s from an unknown source, or you didn’t initiate the action, you should be wary.”

Quick tips to identify a phishing email:

- **The message contains a URL that doesn’t link to the legitimate website.** For example, if you receive an email claiming to be your bank, but the link leads to somewhere else, it’s probably a phishing attack.
- **The message contains poor spelling or grammar.** If a company sends out mass communications to customers it’s likely they will be reviewed for spelling and grammar. If you receive an email that’s full of mistakes, then it may have come from an illegitimate source.
- **They ask for personal information.** A reputable company should never send you an email asking for your password, credit card number or the answer to a security question. No matter how official it looks, alarm bells should be ringing if they’re asking you for your personal data.
- **Your “colleague” sounds unnecessarily urgent or unfamiliar.** If your colleague messages requesting a transfer of sensitive data, credit card numbers or patient information when they usually wouldn’t, or the message contains language/grammar that is unusual for them, call them just to make sure the request is genuine.
- **The offer seems too good to be true.** If something seems too good to be true, it probably is. Phishing scams will sometimes

make bold claims to try to entice you to click a link. If it’s from an unknown source, or you didn’t initiate the action, you should be wary.

- **The message makes unrealistic threats.** Some phishing attacks try to play on fear and use intimidation to get people to click their links. For example: You receive an email seemingly from your bank informing you that your account has been compromised. If you don’t submit a form containing your account information, it will be closed. No bank is going to close your account for not replying to an email. If in doubt, telephone the company.

Simple awareness training is all it takes to stop a potentially crippling attack.

Foregenix specialises in working with organisations of all security maturity levels, providing a range of education services delivered through online and in-person content. AHHA members are entitled to a 10% discount on all Foregenix services. Please contact Dan Ball on 0431 693 607 or dball@foregenix.com



Free Palliative Care Training Resource

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end-of-life conversations



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assessment skills



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recognising deteriorating patients.



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The Palliative Care Online Training Portal is funded by the Australian Government.

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Become an AHHA member

Help make a difference on health policy, share innovative ideas and get support on issues that matter to you – **join the AHHA.**

The Australian Healthcare and Hospitals Association (AHHA) is the ‘voice of public healthcare’. We have been Australia’s independent peak body for public and not-for-profit hospitals and healthcare for over 70 years.

Our vision is a healthy Australia, supported by the best possible healthcare system. AHHA works by bringing perspectives from across the healthcare system together to advocate for effective, accessible, equitable and sustainable healthcare focused on quality outcomes to benefit the whole community.

We build networks, we share ideas, we advocate and we consult. Our advocacy and thought leadership is backed by high quality research, events and courses, consultancy services and our publications.

AHHA is committed to working with all stakeholders from

across the health sector and membership is open to any individual or organisation whose aims or activities are connected with one or more of the following:

- the provision of publicly-funded hospital or healthcare services
- the improvement of healthcare
- healthcare education or research
- the supply of goods and services to publicly-funded hospitals or healthcare services.

Membership benefits include:

- capacity to influence health policy
- a voice on national advisory and reference groups
- an avenue to key stakeholders including governments, bureaucracies, media, like-minded organisations and other thought leaders in the health sector

- access to and participation in research through the Deeble Institute for Health Policy Research
- access to networking opportunities, including quality events
- access to education and training services
- access to affordable and credible consultancy services through JustHealth Consultants
- access to publications and sector updates, including:
 - Australian Health Review
 - The Health Advocate
 - Healthcare in Brief
 - Evidence Briefs and Issues Briefs.

To learn about how we can support your organisation to be a more effective, innovative and sustainable part of the Australian health system, talk to us or visit ahha.asn.au/membership.

More about the AHHA

AHHA Board

The AHHA Board has overall responsibility for governance including the strategic direction and operational efficiency of the organisation.

Dr Deborah Cole (*Chair*)

Dental Health Services Victoria

Dr Michael Brydon

Sydney Children's Hospital Network

Dr Paul Burgess

NT Health

Ms Gaylene Coulton

Capital Health Network

Dr Paul Dugdale

ACT Health

Mr Nigel Fidgeon

Merri Community Services, Vic

Mr Walter Kmet (on leave)

WentWest, NSW

Prof. Adrian Pennington

Wide Bay Health and Hospital Service, Qld

Ms Joy Savage

Cairns Health and Hospital Service, Qld

AHHA National Council

The AHHA National Council oversees our policy development program. The full list of Council members can be found at: ahha.asn.au/governance

Secretariat

Ms Alison Verhoeven

Chief Executive

Mr Murray Mansell

Chief Operating Officer

Dr Linc Thurecht

Senior Research Director

Mr Krister Partel

Advocacy Director

Ms Lisa Robey

Engagement and Business Director

Ms Kylie Woolcock

Policy Director

Dr Chris Bourke

Strategic Programs Director

Dr Rebecca Haddock

Deeble Institute Director

Mr Andrew McAuliffe

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Other organisations support the AHHA with Corporate, Academic, and Associate Membership and via project and program support.

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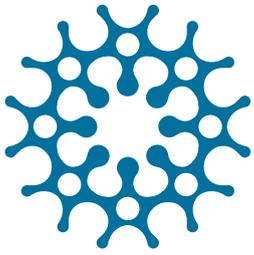
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The views expressed in *The Health Advocate* are those of the authors and do not necessarily reflect the views of the Australian Healthcare and Hospitals Association.

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Australian Centre for Value-Based Health Care

WHO WE ARE

Established by the Australian Healthcare and Hospitals Association, the Australian Centre for Value-Based Health Care's vision is for a healthy Australia, supported by the best possible health care system.

We will do this by pursuing the creation of a system where health care is funded and delivered with a prime focus on outcomes achieved at an affordable cost for patients and the health system.

OUR AIMS

In collaboration with our supporters and partners, the Centre aims to:

- To increase knowledge and understanding of the principles of value-based health care
- To build the skills required to successfully implement value-based health care
- To influence public policy to enable the transition to value-based health care, focused on outcomes and patient-centred models of care and supported by innovative funding models
- To curate and share best practice examples, theory and research on value-based health care
- To be recognised as the Australian thought leadership organisation for value-based health care

COLLABORATE WITH US

The Centre is actively seeking partners and supporters to get involved with our research, events, education and training. We are also actively seeking financial supporters who are able to fund pilots and research. For more information on how your organisation can become an Australian Centre for Value-Based Health Care partner, contact value@ahha.asn.au.

The Australian Centre for Value-Based Health Care acknowledges the World Economic Forum definition of value:

The health outcomes that matter to patients relative to the resources or costs required.

