

# Interoperability in Healthcare

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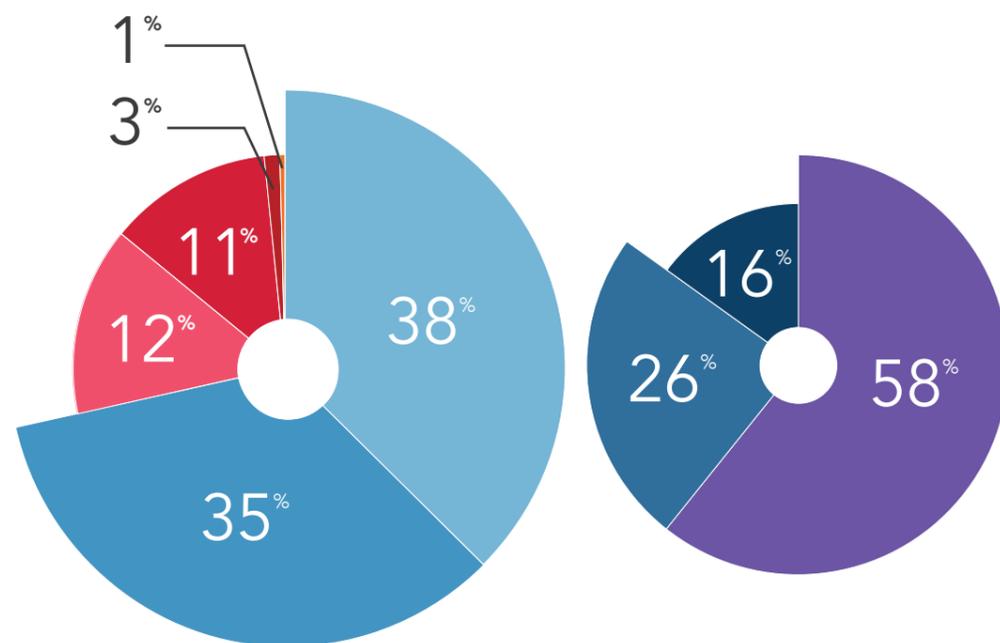
Attitudes, uptake and inhibitors

In the fast-evolving digital age there is vast opportunity to improve the **flow of information across the healthcare network**.

However, embracing data sharing and the potential of interoperability comes with a number of considerations; not least of which are a lack of trust and concerns around security.

MedicalDirector surveyed more than 320 industry professionals to determine how the health sector approaches data sharing and interoperability and what it means to the medical profession.

### Respondent profile:



#### Role

- Practice Manager
- General Practitioner
- Other
- Specialist
- Nurse
- Allied Health Profesional

#### Location

- Capital city
- Regional area
- Rural or remote area



In this paper, we review the results of our survey covering current perceptions of interoperability in healthcare, what's holding industry back from embracing it, and how it can help us improve patient outcomes and the delivery of care.

While data has been recognised as the bedrock of high quality healthcare in Australia, many working in the industry don't have a complete understanding of what data sharing and interoperability involve and are therefore reluctant to embrace it.

Recent reviews have questioned the efficiency of our healthcare system; and worryingly, **for the first time health expenditure has exceeded 10% of our GDP<sup>1</sup>**. Healthcare funding has been growing faster than the economy, so it's important we start harnessing ways to work smarter in order to ensure we continue to deliver the high standard of healthcare that Australians deserve.

# Data Sharing and Interoperability

## Scope of industry awareness

There's little doubt that cloud technologies are significantly transforming the healthcare industry and the ways in which healthcare is managed and delivered. Cloud-based solutions store and access data on the internet, rather than relying on a locally hosted server, so data and insights can be shared in real-time to inform patient diagnosis and treatment. Cloud technologies can be leveraged to facilitate data sharing and interoperability in a secure and mobile-friendly environment.

**Interoperability is defined as the ability of different computer systems or software to exchange and make use of information.<sup>2</sup>**

While most healthcare professionals recognise the value of real-time collaboration, a current lack of understanding and anxieties around security present significant hurdles to industry-wide uptake.

**80%** of respondents feel data sharing has the potential to optimise the industry.

By the end of 2018, the Australian Government, via the Australian Digital Health Agency, will have released a set of standards for implementing interoperability between all public and private health care services in Australia. In the meantime, it's important we work to build trust in interoperable systems – and the role of the cloud in enabling them – before expecting these standards to be adhered to.

**ONLY 3%** of respondents say they trust data sharing.

The reality is that when it comes to sharing data, many in the medical industry are unsure about the security of moving sensitive patient information around, especially now given the exponential rise of cyber attacks and data breaches.

**76%** consider the security of information being stored or sent their greatest area of concern in regards to managing patient information.

The Digital Health Cyber Security Centre has been established to protect the national digital health systems and personal health information of all Australians from cyber threats and to raise the security posture of Australia's health sector.<sup>3</sup>

Likewise, continued investment in the My Health Record indicates a clear appetite for the continuing digitisation of the healthcare industry.

We must recognise systems like these - put in place to protect the security of sensitive information - and work to complement the government in their efforts to make interoperability and data sharing a more widespread standard practice.

By the end of 2018, **98% of the population is expected to have a digital record,<sup>4</sup>** laying the foundations for the movement and exchange of patient data and informed insights to deliver more integrated care of a higher standard. At this time, Australia will have the highest participation rate in a national health record system in the world,<sup>5</sup> presenting an excellent opportunity for our industry to position itself as a pioneer of successful collaboration and interoperability via the cloud.

Yet despite this, feelings of mistrust and concerns around the movement of patient data present a considerable point of contention for the healthcare industry. Educating people about what interoperability means and the steps taken to protect the flow of digital information must remain a key focus in Australia. Without this, harnessing interoperability may experience significant setbacks.

*“Even while regulators and vendors learn and implement new cloud technologies, there are already systems in place to exchange patient data safely and effectively. These secure systems use end-to-end encryption, meaning that the information cannot be read by anyone other than the sender and the recipient. This messaging service is growing each year, saving time and money across the entire health care system.”*

**Greg Atkins**

National Manager Australia, HealthLink





## Do we need interoperability?

“Every single time I fax a referral I feel embarrassed that I am using a technology first invented in the 1800s. My working day has the potential to flow infinitely better with streamlining of referrals, results, investigation requests, scripts, patient education etc assisted by the introduction of cloud technology and the flow on effects from this.”

**Dr Daniel Kulbac**

GP at Augusta Road Medical Centre

2017 MedicalDirector survey: 'Interoperability in Healthcare'

Interoperability is paramount to an efficient and effective system of care. Information systems can securely store, make sense of and move large sets of data. Over time, allowing these systems to integrate at the point of care will help deliver a higher standard of healthcare and inform more accurate patient diagnoses.

The benefits of cloud-based health solutions are generally widely recognised, most notably for the flexibility they provide in delivering care anytime, anywhere.

**64%** of respondents consider flexibility the main benefit of using a cloud-based EHR/PMS system.

Ensuring healthcare data is exchanged across different systems and among health practitioners will add value by increasing productivity and revenue, fast-tracking the delivery of more informed healthcare.

**ONLY 31%** of respondents are satisfied or really satisfied with the current flow of information between their practice and other healthcare providers.

These results indicate a readiness for digitally enabled healthcare and systems. With multiple users at any one time entering and exchanging information in the cloud, the accuracy and reliability of data increases and less resources are spent on manually sharing information that may become redundant and out-of-date by the time it's extracted.



**Increased care coordination**



**Time savings**



**More efficiency**



**Improved research**

Figure 1. Some of the benefits of interoperability in healthcare



## Improving patient outcomes and the experience of delivering care

Perhaps the most significant benefit of moving towards more interoperable systems – one that has been recognised in the Productivity Commission’s most recent review<sup>6</sup> – is what it means for coordinated care and improved patient outcomes.

Value-based healthcare can improve both the experience of the patient and the experience of delivering care for healthcare practitioners. On top of this, it can also help to reduce hospital admissions, curb unnecessary expenditure and alleviate pressure on an already burdened system.

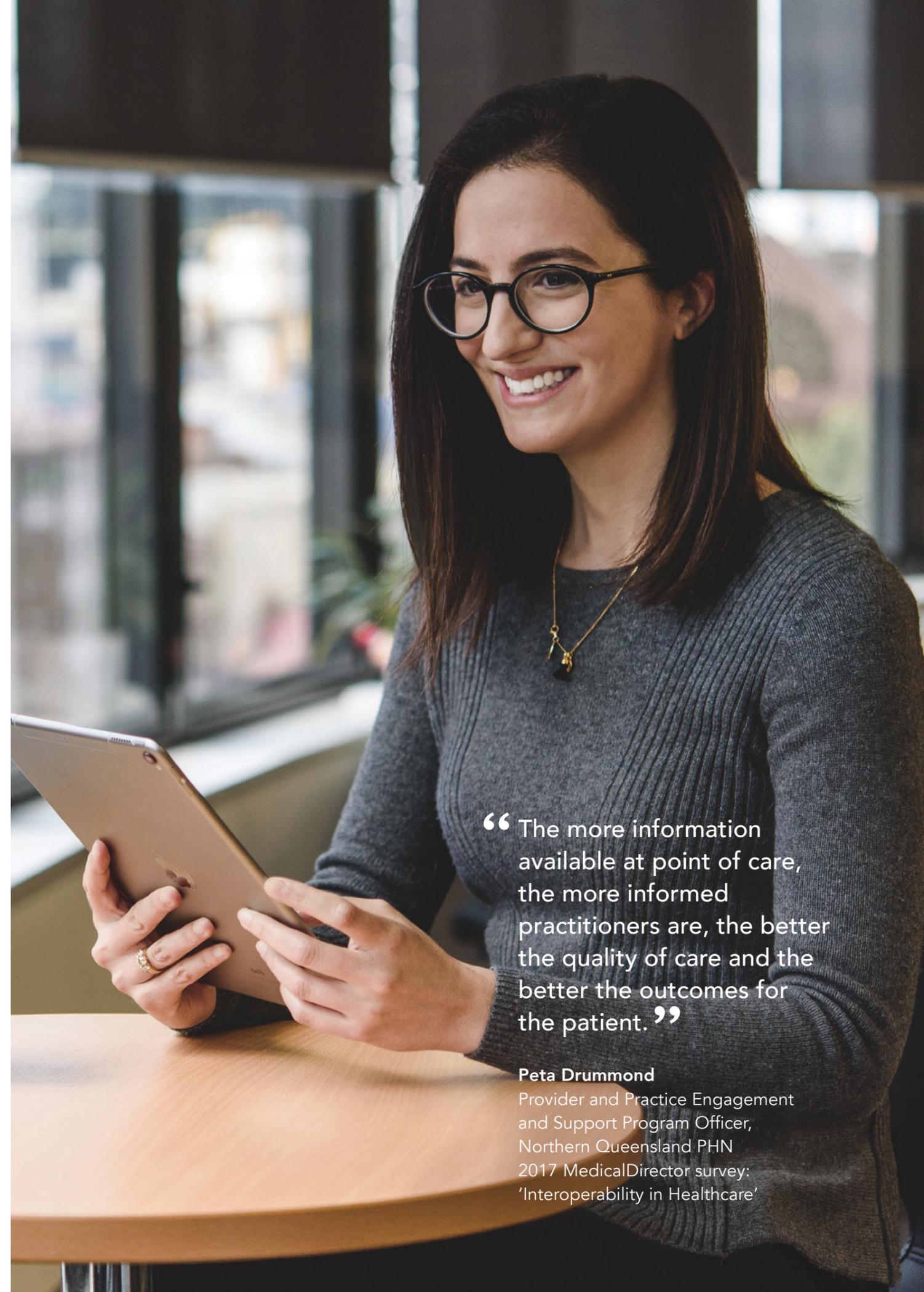
While improving patient outcomes remains the primary purpose of healthcare professionals, in recent times a framework for measuring outcomes known as the Triple Aim has been expanded to the Quadruple Aim, which recognises four interdependent objectives: population health; experience of care; per capita cost; and improving the work life of healthcare providers as care of patient requires care of the provider.<sup>7</sup>

Cloud technologies provide the digital infrastructure needed to effectively coordinate patient-centred care, while interoperability facilitates the transition to healthcare that becomes the shared responsibility of the patient and practitioner.

**17%** of people saw three or more health professionals for the same condition, of these 12% reported that there were issues caused by a lack of communication between the health professionals.<sup>8</sup>

These results indicate the need for greater communication between systems, practices and healthcare professionals to ultimately deliver a more holistic view of a patient’s health and better inform personalised care plans that empower patients to manage their own care and avoid repeat GP visits.

Interoperable systems in healthcare will ensure we’re achieving our core objectives and optimising the performance of Australia’s healthcare system.



“The more information available at point of care, the more informed practitioners are, the better the quality of care and the better the outcomes for the patient.”

**Peta Drummond**

Provider and Practice Engagement and Support Program Officer, Northern Queensland PHN  
2017 MedicalDirector survey: ‘Interoperability in Healthcare’





## Where to next?

If Australia is to hold its rank as delivering some of the best health outcomes in the world, it must embrace the power of interoperability in enabling healthcare. An ageing population and the consequent rise in chronic illnesses will place increased pressure on our existing systems, so funding and large-scale adoption of digital health technologies that support interoperable systems are essential.

A lack of education and widespread anxieties about the security of moving patient data and information appear to be the strongest impediments to achieving interoperability in healthcare.

Alongside our industry partners and practitioners, we remain committed to continuing to work to develop medical solutions that recognise interoperability as key to delivering the most effective form of healthcare now and in the years to come.

See more at: [medicaldirector.com](https://www.medicaldirector.com)

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