

Telstra Health appreciates the opportunity to contribute a submission to the WA Sustainable Health Review. Telstra Health believes that digital health solutions have a key role to play to enable the future sustainability of the health system and respond to the emerging health challenges of the 21st century.

As the population ages and the burden of chronic disease increases, the health system needs to evolve to support more care being provided in community and home settings and in a more integrated, consumer-centred way. Digital health solutions can play a key role in supporting the delivery of these care models.

1. Leveraging existing investment in Primary, Secondary and Tertiary healthcare, as well as new initiatives to improve patient centred service delivery, pathways and transition;

Telstra Health recognises that, in order for the WA health system to most efficiently meet future health challenges, it is important that new initiatives build on and enhance existing investments, services and systems. Examples of these approaches to reform include:

- **Modular approaches that complement existing systems:** Many health services have existing investments in digital health systems, and improving care efficiently involves building on these investments. Solutions that adopt a modular and interoperable approach with existing systems provide more cost-effective improvement than ‘rip and replace’ approaches. For example, Telstra Health’s Patient Flow Manager complements and enhances the capabilities of existing Patient Administration Systems through drawing on their data and using this information to enable hospitals to better analyse how patients are flowing through their services, identify bottlenecks, and better manage care transitions.
- **Better connecting existing services and solutions:** Telstra Health believes that there are significant opportunities to improve patient care through better connecting different parts of the system. For example, inconsistent or incomplete medication information creates clinical risk at transition points, such as when patients present at an Emergency Department or for admission. Fred IT Group’s MedView solution reduces this risk by creating a consolidated patient medication record that can be reconciled by the admitting clinician. This record draws from existing community pharmacy and GP prescribing records, using the existing eRx prescription exchange infrastructure, to provide a more complete and up-to-date picture of a patient’s medications.
- **Leveraging existing funding sources most effectively:** Health services can improve revenue from existing services by improving the electronic data capture of patients moving through the system and what services they receive. For example, Telstra Health’s outpatient management product, Queue Manager, enables health services to more accurately and efficiently capture information about patients and each service they receive. This improves accuracy of claiming and Medicare revenue for hospitals. Telstra Health’s holistic primary healthcare application, Communicare (which is currently being implemented in WA Country Health Service), has enabled regional and Indigenous health services to better manage and claim

Medicare funding for both primary care clinics and remote outpatient services.

2. The mix of services provided across the system, including gaps in service provision, sub-acute, step-down, community and other out-of-hospital services across WA to deliver care in the most appropriate setting and to maximise health outcomes and value to the public;

Telstra Health believes that, with the ageing of the population and increasing burden of chronic disease, there will be an increasing emphasis on providing care in the community on an ongoing basis, rather than episodic acute care.

Digital health technologies can help to deliver these community-based care models through a number of mechanisms:

- **Bringing care to the patient:** instead of patients only receiving care in formal settings, telehealth provides truly patient-centred care by bringing the care to the patient, including at home and to their mobile device, at more accessible times and locations. This has particular benefits for patients in rural and remote areas, and patients who have mobility issues such as the frail aged;
- **Continuous support and monitoring:** while health professionals can only engage with patients on an episodic basis through traditional face-to-face delivery mechanisms, technologies such as remote monitoring and tailored, automated information (such as SMS reminders to patients) can encourage continuous patient engagement, and support the patient to manage their own health on an ongoing basis. These technologies can also provide real time monitoring and notify the patient's healthcare team and/or their family or carers of changes in a patient's health or wellbeing status to provide early intervention. This type of technology improves the efficiency of the health system by allowing healthcare providers to manage larger cohorts of patients safely 'by exception' and direct time and resources to the patients who need it most. For example, Telstra Health's MyCareManager solution enables primary care providers, carers and patients to engage via a mobile device platform, which can be integrated with remote patient monitoring devices such as blood pressure cuffs and glucometers to support continuous monitoring and management of their status;
- **Support for self-management:** consumer-centred mobile applications can support patients to better manage their own health information and services. For example, Telstra Health is developing a consumer-centred health app, HealthNow, that will enable patients to access their My Health Record and other information such as care plans, manage appointments and prescriptions, and identify and access primary care, allied health and specialist services virtually via their mobile phone or tablet;
- **More timely access to appropriate care when needs escalate:** a critical issue for all members of the community is how to access appropriate care if their condition deteriorates, rather than presenting to an emergency department. Telehealth-

enabled models can support access to clinicians who can provide timely advice to patients on how to manage their condition and prevent further deterioration;

- Continuity of care and collaboration: digital health technologies can, through sharing information, enable health professionals to coordinate as a team, reducing duplication, and enabling services to be provided by the most appropriate member of the care team;
- Scale and efficiency: health professionals' time is scarce. Telecare can reduce inefficiencies such as travel time, and, through the use of technologies such as remote monitoring and alerts, more effectively focus professionals' engagement with patients at the times when their intervention is most needed.

Telstra Health notes that WA faces particular challenges of how to provide care in appropriate settings across wide geographies. Telehealth solutions can enable innovative care delivery models that improve access to timely care:

- Reducing waiting times for outpatient specialist services: Innovative care models can help address particular pain points for hospitals, such as long outpatient waiting lists. For example, Telstra Health has enabled Mackay Health and Hospital service in Queensland to improve access to specialist outpatient care and reduce travel costs, through specialist videoconferencing. Under this model, Mackay HHS has identified appropriate patients facing long waits for whom they have difficulty sourcing local specialists. Telstra Health facilitates access to appropriately qualified and credentialed Australian specialists who can fill these gaps, and coordinates videoconferencing consultations for the patients. The outcomes have reduced waiting times from an average of 15 months – and up to 4.5 years – to 3 weeks, reduced expenditure on Patient Travel Subsidy Scheme payments and has reduced Failure to Attend rates from an average of 15-20% for face-to-face delivery to less than 3% for services delivered by telehealth.
- Improving access to primary care in rural/remote areas: telehealth-enabled primary care models can improve timely access to GP care. For example, Telstra Health's ReadyCare service has been providing GP care via telehealth in rural and remote Western Australia since April 2016. ReadyCare is funded by the WA Primary Health Alliance and works with local providers to provide a complementary service. Local GP, pharmacies and hospitals refer patients to ReadyCare for after-hours GP telehealth services, the service has achieved definitive care rates of 55%, improved patient access, reduced waiting times and avoided emergency department presentations. A proposal for continuation is currently being considered.

3. Ways to encourage and drive digital innovation, the use of new technology, research and data to support patient centred care and improved performance;

Telstra Health believes that the best ways to encourage and drive digital innovation in the health sector is to work closely and collaboratively with healthcare providers, so that innovative solutions are designed in partnership between health services and digital innovators to address real world problems and facilitate identified benefits.

Examples of collaborative models to drive innovation and improve performance include:

- Co-design through incubator partnerships: Telstra Health is currently working with a health service in Victoria to assist in improving communication with patients on outpatient appointments, reducing Do Not Attend rates, and improving patient experience. Under this incubator pilot, the health service and Telstra Health are working to use digital technologies to enable electronic scheduling and management of outpatient appointments, automated reminders, wayfinding through electronic maps of the hospital, automated check-in for appointments, and patient feedback tools. These functions are expected to improve patient experience, reduce administrative costs, and reduce the incidence of events that erode system capacity such as Do Not Attends.
- Improving use of data and performance through R&D collaborations: A partnership between Austin Health in Victoria, CSIRO and Health IQ (now part of Telstra Health) developed a Patient Admission Prediction Tool (PAPT), which uses data to predict demand for hospital services. The PAPT enables hospitals to better predict emergency department patient arrivals, their medical urgency and specialty, admissions and likely discharge times. The tool applies statistical algorithms to historical data from the hospital's existing Patient Administration System in order to predict the number of patients admitted and discharged in the future. The tool runs unsupervised and updates data regularly, allowing new information to improve efficiency without draining staff resources. With 90% accuracy, the tool can predict the number of expected presentations with specific injuries or illnesses, facilitating efficient planning of staff, beds and other resources. The CSIRO estimated that for a subsequent Queensland trial the PAPT supported improved service efficiency of \$1 million, with projected direct productivity gains for Queensland of \$3 million per annum.¹

Telstra Health is interested in pursuing other partnership and collaboration opportunities with governments and health services, in order to drive digital innovation and R&D that delivers practical benefits.

4. Opportunities to drive partnerships across sectors and all levels of government to reduce duplication and to deliver integrated and coordinated care;

Telstra Health considers that collaboration and partnership between different sectors is essential to delivering better integrated and coordinated care by better connecting health care providers across different settings and by enabling the timely, secure and accurate sharing of information.

Examples of these opportunities include:

- Sharing information across care transitions: Timely discharge information is an important element to ensuring appropriate care for patients in the community. Telstra Health is currently working with the Australian Digital Health Agency and leading a consortium of digital health vendors in a trial to deliver interoperability between different secure messaging services, focusing on enabling electronic discharge summaries from hospitals to GPs. The aim of the trial is to enable hospitals to communicate electronically with the patient's GP, no matter what secure

messaging service the GP subscribes to. This will reduce barriers to secure electronic communications between hospitals and GPs, and improve timeliness of discharge summaries and the exchange of other vital clinical management information to a patient's GP.

- Common shared records across settings: As noted earlier in our submission, inconsistent and/or incomplete medication information creates clinical risk at transition points, such as when patients present at an Emergency Department or for admission. Fred IT Group's MedView solution reduces this risk by enabling the creation of a consolidated list of a patient's current medications, drawing on community pharmacy prescription and dispense data from the eRx prescription exchange. The patient's reconciled medication record will be able to be accessed by acute and primary clinicians involved in a patient's care, supporting collaboration across settings and integrated care.

5. Ways to drive improvements in safety and quality for patients, value and financial sustainability, including cost drivers, allocative and technical efficiencies;

Telstra Health believes that digital health solutions can support significant improvements to the quality, safety and efficiency of the delivery of health services. As noted in our responses to earlier questions, improved information sharing, such as through timely discharge summaries and shared medication records, support improvements in the safety and quality of care and reduce the risk of errors. Digital health solutions can also improve care through facilitating identification and prioritisation of patients requiring greater support, and improving the efficiency of service delivery. For example:

- Improving visibility of patient status and prioritisation: Patient flow tools can enable hospitals to have real-time visibility of the status of each of their patients, and support the identification, tracking and prioritisation of patients at higher risk of poor outcomes. For example, Bendigo Health has used Telstra Health's Patient Flow Manager to better capture individual patients' status, and prioritise which patients require greater support in discharge planning. These activities have helped to reduce hospital unplanned readmission rates by 30% (from 5.5% to 4% of discharges); and reduced unplanned readmissions for complex patients by 50%.
- Improving efficiency of outpatient services: Outpatient services can be a challenging area for many hospitals to manage, with high demand for services, rates of patients who Do Not Attend appointments, and limited resources. Telstra Health's Queue Manager is an example of a solution that has been deployed in public hospitals across Australia helping to achieve higher throughput of patients, a reduction in waiting times to access outpatient services, and a reduction in the number of patients who Did Not Wait or Did Not Attend outpatient appointments. Queue Manager enables the automation of patient arrivals through a check-in kiosk, and the electronic management of patient movement through the outpatient department. This has improved the quality and efficiency of care through:
 - increased data accuracy and reduction in human errors;
 - improved patient experience through improved flow and reduction in queues;
 - financial benefits through reduced administrative overheads and more accurate claiming for patient services.

For example, at Redcliffe Hospital in Brisbane's northern suburbs, 97% of patients now check in via kiosk. The average total time for fracture clinic patients at Redcliffe is now 1hr 45 mins vs 3.5 hrs previously, with benefits both for patients and the hospital.

6. The key enablers of new efficiencies and change, including, research, productivity, teaching and training, culture, leadership development, procurement and improved performance monitoring;

Telstra Health believes that a comprehensive approach is required to support reform and change in any health system, including support for clinical, cultural, technical and organisational elements. Some of the key enablers identified by Telstra Health that particularly help to support digital health transformation include:

- **Clinical engagement:** a critical element in achieving change is engagement and ownership of reforms by clinicians. Telstra Health believes that, in areas such as digitisation of healthcare, it is critical that solutions are developed from the ground up based on the needs of clinical users with the aim of supporting a patient-centred approach to care. For example, each of Telstra Health's digital health solutions have been developed in partnership with and in the context of the clinical providers whom these solutions serve.
- **Flexible models that support innovators and incubators:** Telstra Health believes that one of the key supports for reform are structures that enable innovations to be fostered at a local level, and then percolate through the system once those innovations have demonstrated effectiveness. For example, Telstra Health's work with a health service in Victoria to improve the management of outpatient services will be tried and tested at the local level, but is designed to amplify and spread to other health services.
- **Collaboration and Partnerships:** Telstra Health believes that collaboration across sectors is a key component of success in innovation, by bringing together skills and abilities that no single organisation will possess on their own. For example, the partnership between Austin Health, CSIRO and Health IQ (now a part of Telstra Health) successfully led to the development of the Patient Admission Prediction Tool. Telstra Health is interested in exploring similar partnerships in the future.

7. Any further opportunities concerning patient centred service delivery and the sustainability of the WA health system.

In summary, Telstra Health believes that digital health technologies have a critical role to play in helping Australia's health system to meet the challenges of the twenty-first century. These challenges include the need to care for a population that is structurally ageing; the increasing prevalence of chronic diseases such as diabetes and heart disease; and improving the quality of care to rural and remote populations where health outcomes are often poorer. Digital health technologies are particularly important in helping to deliver patient-centred integrated care across providers, locations and settings.

About Telstra Health

Telstra Health aims to be the leading provider of digital health solutions that shape a connected future for healthcare. Underpinning this vision are our five strategic commitments to helping deliver a consumer-centred, integrated model of healthcare:

1. We provide safe, secure and high quality digital healthcare solutions
2. We deliver fit-for-purpose solutions that enable best practice care
3. We connect solutions across and beyond our portfolio to unlock value
4. We create a seamless user experience for everyone, wherever they are located
5. We innovate to lead by redefining the digital healthcare of tomorrow

Telstra Health would welcome the opportunity to meet with you to discuss any aspect of our submission.

Reference:

1 CSIRO, 'Improving patient care and reducing waiting times', July 2013,
<http://www.csiro.au/en/About/Our-impact/Our-impact-in-action/Health/Patient-care>