Aboriginal Health Council
of South Australia Ltd.
our health, our choice, our way

Digital Health Discussion Paper

For: The Australian Digital Health Agency

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Acknowledgements

Acknowledgement of Country

As the peak body for Aboriginal Health in South Australia, the Aboriginal Health Council of South Australia (AHCSA) recognise Aboriginal and Torres Strait Islander peoples as the traditional custodians of this land and Country. AHCSA respects the spiritual relationship between all Aboriginal and Torres Strait Islander nations and their country and acknowledge the effects that colonisation has had and continues to have on Australia's First Peoples. AHCSA acknowledge the deep feelings of attachment and relationship of Aboriginal and Torres Strait Islander peoples to culture and Country.

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Background

In recent years, the term digital health has received much interest within the healthcare industry. Health services, organisations and government agencies worldwide are now implementing digital strategies to support the application of digital technologies to their healthcare systems to address patient and community health needs[1]. Increasingly, digital health is now often the term used when referring to eHealth. However, the terms *'eHealth'* and *'digital health'* can have different meanings and incorporate different elements. This is dependent upon the role and perspective of the professional as well as the organisation involved[1,2].

The World Health Organisation (WHO) defines eHealth as *'the use of information and communication technologies (ICT) for health'*[3]. The term digital health evolved from this concept of e-health and is defined by the WHO as a *'a broad umbrella term encompassing eHealth (which includes mobile health) as well as emerging areas, such as the use of advanced computing sciences in 'big data', genomics and artificial intelligence'*[4]. The diverse range of stakeholders working in digital health including government agencies, technologists, clinicians, private companies and researchers have lacked a mutually understandable definition and lexicon specific to the realm of digital health[5]. In response, a shared and standardised vocabulary to describe the uses of digital technology in health was developed by WHO in 2018 called *'WHO Classifications of Digital Health Interventions'*.

The WHO classification framework is the result of a multi-year process of development and refinement informed by a panel of global experts[5]. The framework categorises the different ways in which digital and mobile technologies are being used to support health system and patient needs and is targeted primarily public health audiences with the aim to promote an accessible and common language between technologists and those in health[5]. This classification framework is a prelude to the WHO Guideline *'Recommendations on Digital Health Interventions for Health System Strengthening'* which evaluates the evidence on emerging digital health interventions and presents recommendations[4].

The purpose of this paper is to present the latest global evidence for emerging digital health interventions that strengthen health systems. The digital health landscape in Australia is discussed to provide context regarding the current situation for the Aboriginal Community Controlled Health Service (ACCHS) sector; specifically as it relates to South Australia (SA). Based on this evidence and the sector's understanding and current application of and capacity for engaging in digital health, recommendations and future directions are provided to guide the provision of digital health support from AHCSA for ACCHSs in SA.

Latest digital health evidence

The WHO Guideline *'Recommendations on Digital Health Interventions for Health System Strengthening'* is based on the classification framework and presents recommendations based on the evaluation of evidence on emerging digital health interventions that are contributing to health system improvements[4]. It also includes an assessment of the benefits, harms, acceptability, feasibility, resource use and considers issues relating to equity. The guideline aims to equip health policymakers and other stakeholders with guidance for making informed investments into digital health interventions[4].

The recommendations presented in the guideline focus on a number of specific digital health interventions mainly targeted at low and middle-income countries. These interventions include: birth and death notification by mobile device; inventory control and health commodity management by mobile device (mainly used in African countries to prevent medicines from becoming unavailable); the provision of telemedicine services (between clients and providers); digital tracking of patients' health status and services received within a health record; and health worker training and decision support by mobile device[4]. Whilst the digital health interventions included in the scope of the guideline are relatively specific, broad recommendations and considerations regarding digital health interventions are outlined. These include:

- Digital health interventions should complement and enhance health system functions not replace the fundamental components e.g. health workforce, financing, leadership and governance and access to medicines[6].
- Many digital health interventions have been *'rolled out in the absence of a careful examination of the evidence base on benefits and harms',* which, according to the guideline, has *'driven a proliferation of short-lived implementations and an overwhelming diversity of digital tools, with a limited understanding of their impact on health systems and people's well-being'*[4].
- When introducing innovations and new approaches, digital health interventions require changes in behaviour from healthcare providers and patients. One example is moving away from paper-based systems to digital patient record systems. Implementation success is enabled if the digital health intervention is engaged with by users, (whether that is a healthcare provider or a patient). Implementers must be aware of the motivations, barriers and resistance to the disruption of the current situation that may impact the implementation and adoption by healthcare providers or patients[4].
- It is critical to consider the context and the enabling environment for deployment of digital interventions. This means assessing the ecosystem in a given context or country, reviewing health system needs and tempering expectations and plans for adoption of

different interventions based on ICT and enabling environments available within a setting[4]. For example in India three important 'pre-conditions' have been identified that will need to be addressed before the deployment of digital health interventions. They include basic infrastructure and telecommunications availability across the country; an extensive network of primary health care services; and trained workforce. In India all three 'pre-conditions' are being progressed and supported by the Government.

- In contexts where the ecosystem may not be mature enough to accommodate specific digital health interventions, there should be a focus on strengthening the health system and addressing gaps in the enabling environment to facilitate the implementation of these recommendations in the future.
- Health system operatives should have a clear understanding of what health system challenges can realistically be addressed by deployment of digital technologies, along with an assessment of the ecosystem's ability to absorb such digital interventions.
- The adoption of the digital health interventions should not exclude or jeopardise the provision of quality health services in places where there is no access to the digital interventions, or because they are not acceptable or affordable for target communities[4].
- Recommended digital health interventions should at least be accessible via mobile devices. However, can also be delivered through other non-mobile digital devices. E.g. desktops and laptops[4].

Throughout the guideline, the WHO urges readers to recognise that digital health interventions are not a substitute for functioning health systems, that there are significant limitations to what digital health is able to address, and that the recommendations provided should be considered in context[4].

The digital health landscape in Australia

Over the last 20 years the Australian Government have worked with the public, private and not for profit sectors to support a coordinated health system that is able to share information seamlessly[7]. This has included a particular focus on developing and implementing a shared national electronic health record (EHR) for all Australians. Consideration of a national EHR system started in 2000 with MediConnect and the decision to introduce a shared national EHR was based on the 2008 National Health and Hospitals Reform Commission's recommendation. This recommendation was to create *'an important systemic opportunity to enable person-centered care, support informed consumer decision, making, improve quality and safety of care, reduce waste and inefficiency, improve continuity and health outcomes for patients'*[8]. Subsequently and over the years a number of EHR initiatives have evolved. This included HealthConnect (2004-2008); the Personally Controlled Electronic Health Record system (PCEHR)

from 2012 to 2016 and now the My Health Record (MHR).

The PCEHR was first established as a national opt-in system, meaning individuals had to register and provide consent to be part of the initiative. The PCEHR's purpose was to enable the secure sharing of health information between a patient's healthcare providers as well as with the patient. Due to the low uptake of PCEHR, the system was reviewed in 2013 by an independent panel who made 38 recommendations[9]. Recommendations included to expand the PCEHR and transition the system to an opt-out model as well as rename the PCEHR to My Health Record (MHR). As a result, in 2016 the PCEHR was renamed and rebranded as MHR, and transitioned to an opt-out system the following year. Between 16 July 2018 and 31 January 2019, eligible Australians had the opportunity to decide if they wanted a MHR. For the eligible Australians who did not 'opt out', records were automatically created.

The MHR enables individuals to access, manage and share their health information with their healthcare providers using a range of privacy controls. This functionality includes the ability to decline access to specific documents, set a control to restrict access to the entire record, see an audit trail of any organisation that has accessed the record, and block organisations from viewing the record. An individual's MHR can contain summary information from general practice, hospital, pharmacy and other health care settings. It may also contain investigation results or documents that patients create themselves (such as advance care plans and personal notes). In addition, the MHR provides access to Medicare Benefits Schedule and Pharmaceutical Benefits Scheme information, the Australian Immunisation Register and the Australian Organ Donor Register.

National Digital Health Strategy

In order to implement the recommendations of the PCEHR review in 2013[9] and to progress the national digital health agenda, the Australian Government Department of Health established the Australian Digital Health Agency (ADHA). Between December 2016 and January 2017, the ADHA conducted a national consultation with key health, government and technology industry stakeholders and members of the public. ADHA used the insights gained from this consultation to develop and progress Australia's National Digital Health Strategy[8]. Australia's first National Digital Health Strategy was released in 2017 and was welcomed by the Australian Medical Association (AMA), Royal Australian College of General Practitioners (RACGP), Pharmacy Guild of Australia, Pharmaceutical Society of Australia (PSA), Medical Software Industry Association (MSIA), Consumers Health Forum (CHF) and the Health Informatics Society of Australia (HISA).

The strategy comprises of seven priority areas for digital health in Australia to be achieved by 2022[8]. They include:

1. Health information that is available whenever and wherever it is needed – **(My Health Record);**
2. Health information that can be exchanged securely – **(secure messaging);**
3. High-quality data with a commonly understood meaning that can be used with confidence – **(interoperability and data quality);**
4. Better availability and access to prescriptions and medicines information – (**medicines safety);**
5. Digitally-enabled models of care that drive improved accessibility, quality, safety and efficiency – **(enhanced models of care);**
6. A workforce confidently using digital health technologies to deliver health and care – **(workforce and education);** and
7. A thriving digital health industry delivering world-class innovation – (**driving innovation).**

To achieve these seven priority areas by 2022, ADHA have developed a Framework for Action outlining 44 key activities that will be necessary to implement the strategy[10]. The intention of the Framework for Action is to create a basis for ongoing dialogue and to provide a framework for organisations to align their vision for digitally enabled health and care. See appendix one for an outline of the 44 key activities under each priority area in the Framework for Action.

Digital health for ACCHSs in SA

Aboriginal Community Controlled Health Services (ACCHSs) deliver high-quality, comprehensive, and culturally informed primary health care services. Since the establishment of the first ACCHS in 1971, ACCHSs have been supporting improved health and health care for Aboriginal and Torres Strait Islander peoples across Australia. There are now approximately 150 ACCHSs nationally providing a range of services. ACCHSs vary in size, funding, infrastructure and workforce, as well as in the range of services they offer. The services provided by each ACCHS are also a reflection of the unique health needs of a given community. However, central to all ACCHSs is the purpose and vision of providing comprehensive primary health care through multi-disciplinary and holistic care[11].

The ACCHS sector has been active participants and leaders in eHealth initiatives for the past 20 years. Prior to the conception of the term digital heath, the sector was amongst the first adopters of electronic medical records via Patient Information Management Systems (PIMS) to improve health care outcomes for Aboriginal and Torres Strait Islander people.

Patient Information Management Systems (PIMS) are the fundamental building block of eHealth and digital health in the ACCHS sector in SA. The advantages of electronic systems overs paper records have brought about a revolution in data analysis and has allowed ACCHS to:

- Access a patient's information all from one system in real time
- Ensure patients receive best practice health care and follow up treatment and reduce over and under servicing of patients
- Better safeguards as well as securing patient data
- Monitor population health outcomes
- Better plan, evaluate and improve service delivery through data analysis and quality improvement
- Participate in record sharing eHealth initiatives such as the MeHR, PCEHR and MHR
- Electronic claiming/billing for Medicare claims, with alerts for invalid or expired cards and rejected claims
- Improve accuracy of reporting to funding bodies and stakeholders
- Through remote access to the electronic system, Allow Health Care Workers who are not on-site to follow up patient management (this is particularly important for smaller and more remote ACCHSs which do not have a GP on site all the time)
- Allow more rapid receipt of pathology results, radiology reports, specialist letters, hospital discharge letters, etc.

Use of PIMS (Communicare for all SA ACCHSs), has allowed data analysis and continuous quality improvement (CQI) programs to be embedded within clinical practice, whereby the ACCHS sector has played a leading and innovative role. Use of Communicare supports the targeting, planning, monitoring, evaluation and improvement of health service delivery for ACCHSs. Due to Communicare being a highly customisable system, AHCSA works collaboratively with all 11 ACCHSs in SA and with Communicare to ensure systems are functioning and are locally appropriate to meet the health services' needs and that of the clients and communities they provide care to. This is important and ongoing work, and ensures systems continue to function effectively, remain fit for purpose and are culturally appropriate.

Telehealth for ACCHS in South Australia

Telehealth is the delivery of healthcare at a distance using information communication technologies and falls under the broad umbrella of digital health. Telehealth in SA gained momentum in the late 1990s and primarily involved video conferencing for clinical and educational activities[13]. Up until 2012, there has been no centralised coordination or management of telehealth in SA. Individual hospitals and health services relied on the

purchasing of their own equipment along with establishing their own governance and privacy procedures[13]. There were also no integrated information systems used for telehealth activities.

Over the years, telehealth in SA has concentrated on providing video consults and services from tertiary hospitals in Adelaide to country hospitals and mainstream community health services. The SA Digital Telehealth Network coordinated by SA Health was launched in 2012 and provides the technology for clinicians and patients to communicate face to face from different locations within the SA Health system using Cisco Jabber software. This Network is now used to deliver a range of healthcare services including: mental health, medical oncology, radiation oncology, cardiology, burns support, renal services, rehabilitation, allied health, haematology, neurology, pain assessment, spinal assessment, emergency retrieval, vascular surgery, palliative care, prison health and after hours GP support for emergency departments. For non-SA health services in a primary health care setting, Country SA Primary Health Network (PHN) have been commissioned to connect primary healthcare services within their jurisdiction with SA health sites using Cisco Jabber software.

It is widely documented and well known that telehealth has the potential to provide a number of advantages for healthcare and improved health outcomes for Aboriginal and Torres Strait Islander people[14]. There are gaps in published research regarding how well telehealth can deliver culturally appropriate healthcare to Aboriginal and Torres Strait Islander people[15]. For telehealth to be used as an acceptable modality for healthcare for Aboriginal and Torres Strait Islander people it needs to be culturally safe. Culturally safe care is an outcome that can only be defined by the individual receiving care and is usually experienced by individuals who receive care from culturally competent systems and healthcare providers[15].

For many years, SA ACCHSs have used telehealth with numerous types of technology and equipment and with varying capacity and success. This has largely been dependent on the ACCHSs' size, location, funding, infrastructure and workforce. Telehealth consultations enable patient access to a variety of healthcare providers through the use of video or telephone calls. For specialist telehealth consultations, there is evidence that health outcomes for Aboriginal and Torres Strait Islander patients and access to care both improve when mainstream service providers work with ACCHSs[14]. Patients are also more likely to attend a specialist appointment at an ACCHS than a mainstream facility.

Medicare-rebateable telehealth items have mainly been used for specialist outreach services in ACCHSs in SA. However, many ACCHSs have relied upon and continue to do so, strategies which can be classified as telehealth, but which are not recognised by the Medicare Benefits Schedule

(MBS). For example, where a remote health service without a regular on-site GP, engages an on-call GP who provides care and advice by telephone. This issue has been temporarily addressed with the introduction of Medicare rebates for GP telehealth consultations in response to the COVID-19 pandemic. To reduce the risk of transmission of COVID-19 for patients and staff, ACCHSs in SA have been utilising telehealth where appropriate.

Should the COVID-19 Temporary MBS Telehealth Services be continued past the September 2020 assessment of the program, consideration should be given to expanding the program further, and a review of the rapid rollout of telehealth be conducted to assess the impacts of telehealth on the access of Aboriginal and Torres Strait Islander peoples to healthcare. This review should coincide with a review of the acceptability of telehealth from a client perspective, and of the quality of healthcare being provided. It remains imperative that continued and increased use of telehealth does not reduce the quality of healthcare being provided and received.

Challenges and considerations

Given the complexity of the digital health environment there are many challenges that need to be considered for ACCHSs in SA. The main challenges include improving data quality, inadequate infrastructure, lack of awareness of MHR, and concerns around data sharing, privacy and consent.

Improving and correcting data quality in PIMS is an ongoing process that is essential to patient care and the effective use of digital health. Accurate and up-to-date data is important because this information is relied upon for clinical decision making. It ensures correct diagnosis, treatment and follow up. High staff turnover, the cost of training in the use of the PIMS and inadequate resources are major barriers for ACCHSs to maintaining high quality and accurate data. Increased investment to improve data quality of PIMS at a local level for ACCHSs in SA is required.

There is a current shortfall in infrastructure with a need for new buildings in existing and outreach locations, and renovations to increase facilities such as consultation spaces. Additional funding is required for additional rooms and clinics mapped against highest need with consideration to establishing satellite, outreach or permanent ACCHSs. Many health clinics are 20-40 years old and require refurbishment, capital works and updating to meet increasing population and patients numbers. The lack of consulting rooms, derelict infrastructure, inadequate ICT, hardware and connectivity severely limits ACCHSs' ability to safely deliver comprehensive, timely and responsive primary health care. For digital health technologies to be incorporated routinely in everyday practice (clinical, educational and administrative), ICT,

hardware and network connectivity must be sufficient and reliable.

Despite significant investment from the Australian Government in the national rollout and expansion of the MHR, ACCHSs in South Australia report that many Aboriginal and Torres Strait Islander people are unaware that they have a MHR and of the expansion changes that occurred. With 90% of ACCHSs in SA based in rural or remote areas, many patients have limited access to digital technology, lower computer literacy and no or poor internet connectivity. In response to SA ACCHSs voicing their concerns regarding the lack of awareness of MHR and the expansion changes, AHCSA formed a MHR Reference Group with representation from across ACCHSs in SA. The MHR Reference Group have agreed that the concept of the MHR has potential and that there is a need for a shared electronic health record, however concerns remain with lack of awareness, system security, privacy, consent and efficiency.

For Aboriginal and Torres Strait Islander people, here it remains crucial, that the exploitation of health information generated by digital health technologies is prevented. Where there is justifiable public health benefit, routinely collected data may be permissible to be used for research purposes with appropriate data custodian and ethical approvals. Appropriate data custodian and ethical approvals are essential and an important element of exercising self-determination.

AHCSA's Recommendations

Based on the evidence presented and the South Australian Aboriginal Community Controlled Health sector's understanding and current application of and capacity for engaging in digital health, AHCSA recommends the following:

1. Digital health interventions be implemented to address issues and problems identified at the health service level, and not to meet the needs of external agencies or purely for the sake of innovation.
2. Digital health interventions complement and enhance health system functions and not replace the fundamental components. AHCSA supports digital health interventions that provide choice to healthcare consumers.
3. Extensive and timely consultation with relevant stakeholders and careful examination of the evidence base on benefits and harms of digital health initiatives must occur prior to implementation.
4. Digital health implementations need to be made appropriate to local needs, intended users (whether that are healthcare providers or patients) and the overall ecosystem.
5. Assess the ecosystem in a given context by reviewing health system needs and

understand health system challenges that can realistically be addressed by digital technologies. Challenges could include a range of contextual factors such as infrastructure, language, social and cultural barriers, attitudes, expectations, remoteness.

6. In contexts where the ecosystem may not be mature enough to accommodate specific digital health interventions, there should be a focus on strengthening the health system and addressing gaps in the enabling environment to facilitate the implementation of these recommendations in the future.
7. For telehealth to be used as an acceptable modality for healthcare for Aboriginal and Torres Strait Islander people it needs to be culturally safe. Telehealth models of care facilitated through partnerships between ACCHSs and public hospitals and health services may improve both patient outcomes and access to specialist services for Aboriginal and Torres Strait Islander people[14].
8. Where there is justifiable public health benefit, routinely collected data should be permissible to be used for research purposes with appropriate data custodian and ethical approvals.
9. Align ACCHSs' digital health priorities with ADHA's based on the Framework for Action (see appendix one for list of activities in the Framework for Action). Further planning and consultation with SA ACCHSs' will be required.

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Appendix One – Australian Digital Health Agency Framework for Action