



digital health
CRC

Annual Report

1 JULY 2018 TO 30 JUNE 2019

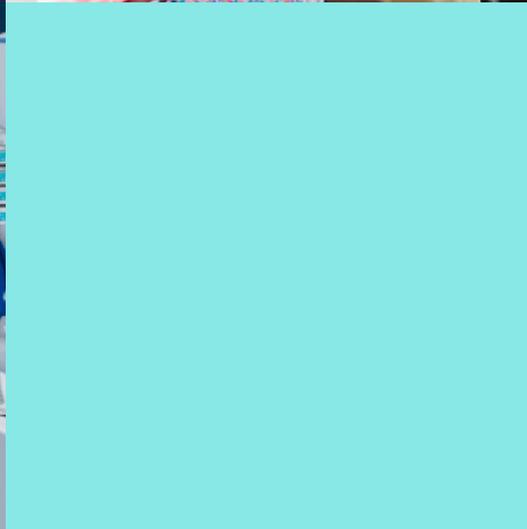
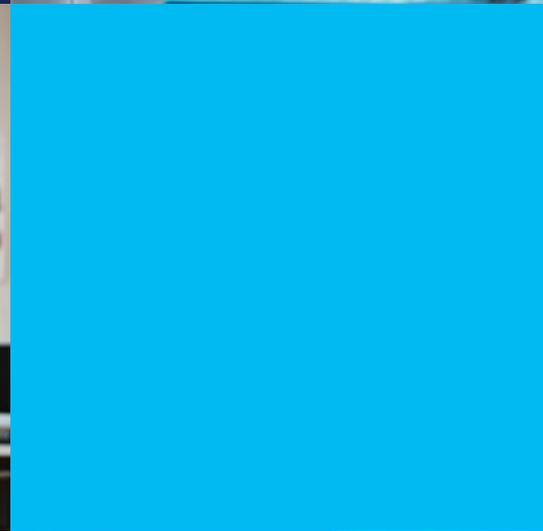


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Report from the Chair



"The DHCRC is a unique opportunity for us to be part of an enterprise that has the potential to build the digital health sector, while contributing to better health and economic growth in Australia."

The Digital Health Cooperative Research Centre (DHCRC) was formally established on 1 July 2018. An impressive enterprise of more than 60 industry partners and 16 leading Australian universities, the DHCRC holds great promise in contributing to the growth of the digital health sector through its philosophy of "industry driven, academically powered" research and development.

This first establishment year was busy and challenging as the company entered formal agreements with 75 of the Core and Additional Participants, including a broad spectrum of participants from the health industry and technology sector and most of the government jurisdictions in Australia. Pleasingly, the majority of the Core Participants are now Members of the company and represent the broad health ecosystem with significant national spread. The governance structures, policies and procedures were established, including our four Board committees.

In parallel, to develop the research strategy and investment framework and priorities, an extensive program of consultation with our Participants and

key stakeholders was conducted across Australia over the first six months. This resulted in the development of our Research Matrix, Flagship Programs, Research and Education Investment Framework and Funding Guidelines.

Following an executive search, the Board appointed the new Chief Executive Officer, Dr Victor Pantano, who joined us in February 2019. Further development of systems, procedures and practical templates followed and was communicated to Participants to enable an efficient research design pathway, assessment of research proposals and to build the research pipeline. Further key appointments were made to the management team over following months.

By the end of June 2019, a significant portfolio of more than 30 research projects aligned to the identified Research Flagship areas were progressing through the research pathway, along with development of the education program to support capacity building goals of our CRC. Translation and commercial opportunities will be explored as the research investment progresses.

Our thanks to the inaugural Chair, Emeritus Professor Mary O’Kane AC, who resigned as Director on 14 June 2019, for her important contribution to the establishment of the Board and governance structures. I also recognise and thank David Jonas who was the inaugural CEO from July 2018 – February 2019 and my fellow inaugural board members for their commitment to the vision of the DHCRC – advancing health care and our economy.

The first year has not been without its challenges and we appreciate the support of all of our Participants. We are excited about the opportunities ahead. It is pleasing to see a

significant R&D investment pipeline emerging, focussed on areas of need identified by industry participants and linking with research expertise from our university Participants from across the country. The DHCRC is a unique opportunity for us to be part of an enterprise that has the potential to build the digital health sector, while contributing to better health and economic growth in Australia.

Professor Christine Bennett AO
Interim Chair
Digital Health CRC



Report from the CEO



"We are in an enviable position of being able to make a difference to the lives of so many Australians through research findings that can be translated and utilised in both practice and policy."

Since starting as the CEO of the DHCRC in February 2019, we have been extremely busy building on the foundations laid by the inaugural team of the CRC. It has been a challenging and rewarding few months, going from ideation to a centre with a clear research investment framework, funding guidelines, operational processes and supporting infrastructure.

While our research projects have not yet commenced, we have fostered collaboration between our Participants, laying the basis for some exciting projects to come. We have significantly increased our engagement with the digital health community through the first stage of development of our website, our social media reach and our newsletter. We have worked hard to make new ways of connecting people to make it easier to get involved with our research projects as researchers, students and industry participants.

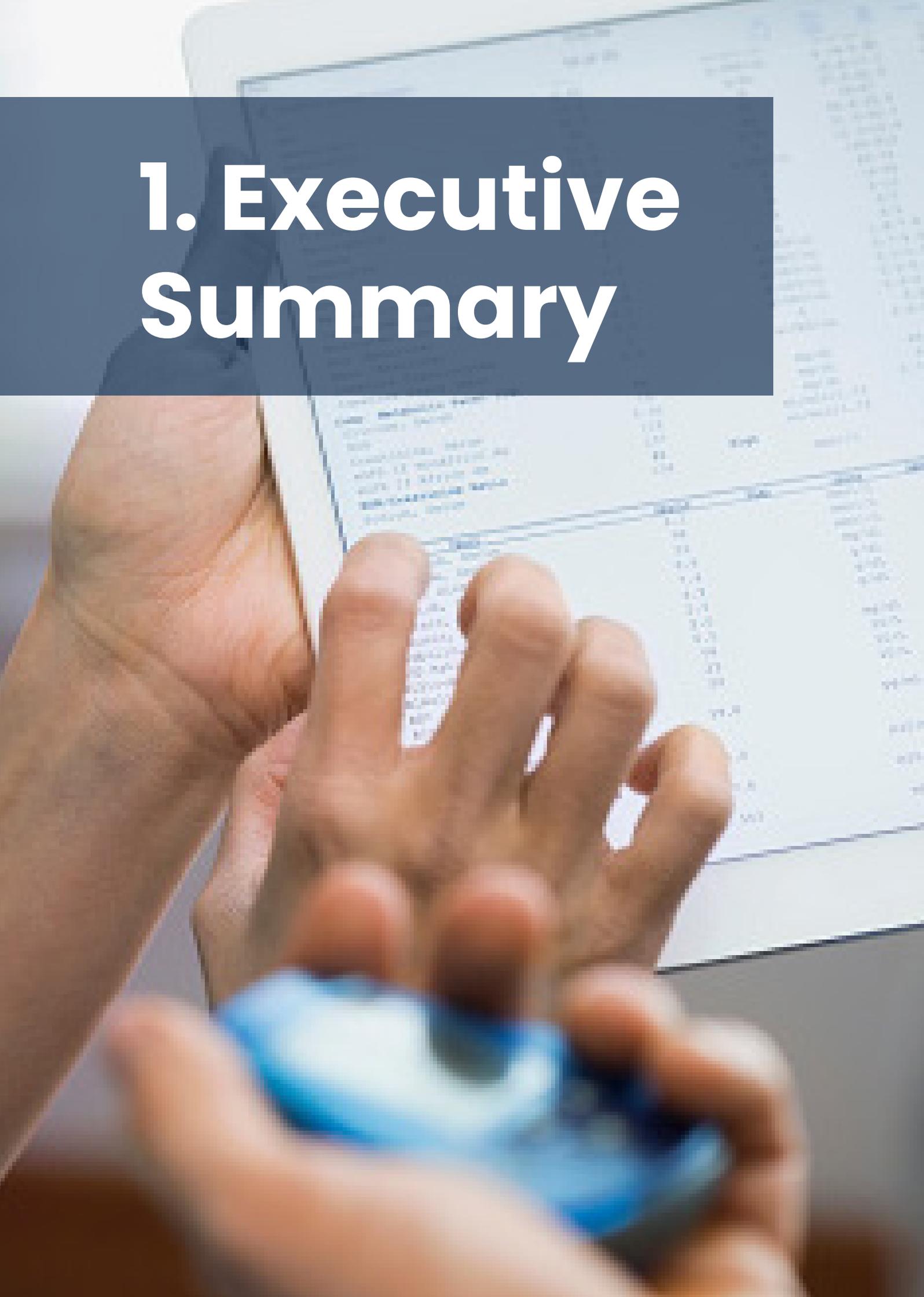
Never before has such a coalescing of key stakeholders from the digital health industry occurred. Never before have such a broad range of researchers, payers, regulators, governing

bodies, health service providers and consumers from the ecosystem collaborated to envision a seven-year plan to make a significant impact on the health sector. We are in an enviable position of being able to make a difference to the lives of so many Australians through research findings that can be translated and utilised in both practice and policy.

I sincerely thank our Participants for your support and patience through the challenging 'start up' phase and while we have been building the foundations for all that lies ahead. I look forward to progressing the achievement of what we have ambitiously set out to do.

Dr Victor Pantano
Chief Executive Officer
Digital Health CRC

1. Executive Summary



1. Executive Summary

The Digital Health CRC (DHCRC, the Company) is the world's largest digital health research and development cooperative with over 70 participants spanning the health ecosystem. One of Australia's largest Cooperative Research Centres, we will invest over \$230M in digital health research and technology to: improve health outcomes, reduce waste in the health system, develop the digital workforce of the future and build businesses and jobs.

The objectives of the DHCRC are to:

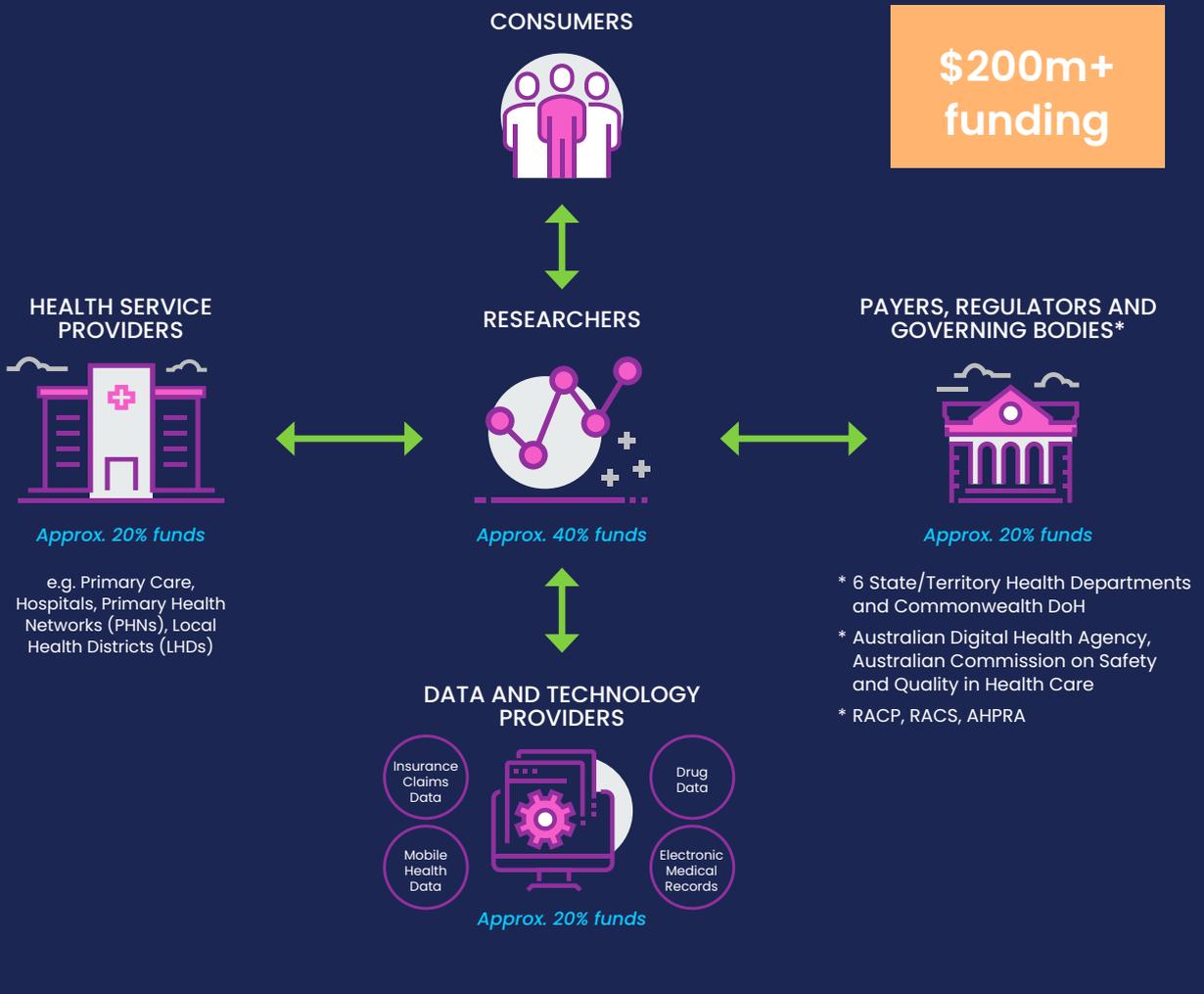
- (a) advance the Australian healthcare system, the health and wellness sectors and the related digital health technologies and solutions industry;
- (b) establish and operate a cooperative research centre in the Field with the capability of pursuing world class scientific research and development and training relevant to the Field so as to maximise the benefits to Australia and internationally from those activities;
- (c) ensure that the parties with their differing disciplines and backgrounds will, through their participation in the Company, add value to each other so that the performance of the Company will be greater than that of each Party acting independently;
- (d) carry out education activities in the Field for students and for the professional development of persons working in the Field and to increase the skills of persons already working in the Field;
- (e) build Australia's long-term capacity in the Field including building Australia's future workforce in the Field;
- (f) ensure the outcomes of all activities are utilised in advancing the best interests of Australia to maximise the benefit to Australian industry and the Australian economy.
- (g) as an ancillary and supportive purpose, utilise intellectual property generated from the research in such a manner as to advance health and wellness resources and networks in Australia and ensure benefit to Australia, including Australian industry, the Australian healthcare system and the Australian economy generally.

For the purposes of the Objectives, "Field" means the conduct of scientific research to improve the health and health care of Australians and advance the economy through collaborative research and development that combines multi-disciplinary skills, industry knowledge, technologies, networks and data to:

- (a) empower consumers;
- (b) understand and manage health risks of individuals and communities;
- (c) support clinical practice;
- (d) improve system efficiency and access to quality care; and
- (e) build and enhance businesses to provide high value jobs and solutions in a growing global market.

Our participants represent all the major players from across the digital health sector and include health service providers and funders, technology companies, research institutions and government organisations. We are funded by our participants and by the Federal Government under its Cooperative Research Centre program.

Figure 1: Digital Health Participant Ecosystem



The first year has been principally dedicated to establishing the company, entering into formal agreements with the 75 organisations that were part of the DHCRC bid, establishing the DHCRC's governance and organisational structures, progressing the research program and our approach to investment outlined in the bid and

consulting with participants to form the Research and Education Investment Framework (REIF) to establish a project pipeline. Achievements for the DHCRC in its first year are outlined below, as well as a summary of risks and impediments that have been managed or are being addressed.

1.1. Achievements

DHCRC achievements during FY19 include:

- + Company registered as a not-for-profit and granted charitable status by the Australian Charities and Not-for-Profit Commission;
- + Board appointed and four core committees established: Audit & Risk Management Committee, Nominations & Remuneration Committee, Research & Education Investment Committee and Translation & Commercialisation Committee;
- + Inaugural Executive Team mobilised;
- + 75 formal participant agreements completed:
 - 31 core participants (23 becoming members of the Company);
 - 44 additional participants;
- + Search process and recruitment of the new CEO (who commenced in February 2019);
- + Core team recruited, including: Director of Commercial and Operations, Director of Research, Chief Scientists, Director Partnerships and Program Office and Program Managers;
- + Conducted a series of national workshops and consultations to develop the DHCRC's Research Matrix and Flagship Programs and several state-based meetings to facilitate connections between participants;
- + Implemented core systems and processes to operationalise the DHCRC, including Turnkey CRC;
- + Research and Education Investment Committee and DHCRC team developed and released the (REIF) and the accompanying Funding Guidelines which provide guidance to participants on how to engage in DHCRC funded collaborative research and development projects;
- + Engaged the majority of the DHCRC's participants in project discussions around our Research Matrix/Flagships and commenced development of the project pipeline;
- + By 30 June 2019, 37 projects were registered in the Research Pipeline:
 - 2 projects in final agreement negotiations;
 - 6 projects in detailed planning; and
 - 29 opportunities under development;
- + Released major industry publication – *The Flying Blind Series: Volume 2: Australian Researchers and Digital Health*;
- + Partnered with University of Sydney and New South Wales Health to develop a Massive Open Online Course (MOOC), titled 'Using Clinical Health Data for Better Healthcare';
- + Commenced regular communication with our participants through monthly newsletters and frequent emails, updating participants on progress and including participant profiles;
- + Appointed Flagship Research and Education Directors (FREDs) for each of our Flagship Programs;
- + Designed our Education Program and released expressions of interest for people interested in undertaking postgraduate studies through the DHCRC.

1.2. Risks and Impediments

Establishment of a CRC, particularly one of this size and diversity faces many challenges. The following risks and impediments were identified during the first year, including strategies used to mitigate these.

Breadth of Sector: Digital health is a very broad sector and one that is still evolving. Identifying where in digital health the DHCRC would choose to focus was a major priority so that its investments could be targeted, deep and have impact. To mitigate the risk of a scattergun approach given the diversity of participants, a number of workshops were held to engage our participant base and in particular, our industry participants, to help identify high priority areas for investment. This was also designed to support the 'industry-led, academically powered' ethos of the DHCRC. The result was the development of our Research Matrix and Flagship Programs, coupled with the REIF, which has provided the foundation for the development of the project pipeline.

People: Sourcing key talent, including appropriate executive and management, was identified early on by the Board as a major risk. The Board worked closely with the interim CEO and a search group to recruit a permanent CEO and then worked with the CEO to implement an organisational structure to deliver on the objectives of the DHCRC. While more skills and resources are required to deliver on the DHCRC's vision, the broad foundations are in place to operate and build the DHCRC.

Participant Engagement: Keeping participants informed, engaged and involved in the DHCRC is challenging and during start up phase, in particular, presented a significant risk. In FY19 this was especially the case as contributions commence from signing the agreement to join the DHCRC and the first 6 months of the DHCRC was focussed on completing agreements with the 75 participants. Further, given the nascent nature of the program

scope and research definition when the bid was successful, it has taken some time to consult and reach a strong and well-defined direction for the research program. We have sought to mitigate dis-engagement risks by involving participants in workshop activities, meetings, connecting participants and commencing newsletters and other regular communications. Program Managers have also been appointed and as projects are defined, participants will be drawn into relevant DHCRC activities.

Funding Model: Once the REIF was developed, it became apparent that the funding model for the DHCRC needed urgent definition to meet the expectations that had been made to participants within the bid process, the need to operationalise the DHCRC, and the commitments to various program elements (research, education, capacity building, technology development and commercialisation). Modelling was conducted and a financial model was arrived at and adopted by the Board. This was published to all participants soon after the release of the REIF to provide clear guidance in terms of how to structure projects and how participant contributions would be applied. An ongoing risk with the funding model remains in that, if that Funding Guidelines are not applied correctly, underlying participants expectations may not be fulfilled.

Governance: Given the diversity of the DHCRC's participants and the broad nature of the sector, there is a risk that some groups of participants and/or stakeholders feel underrepresented in the DHCRC's governance structures. To mitigate this risk, the Board has sought to ensure broad representation on Board committees, regional groups and advisory panels, to reflect the broad and diverse interests within the sector and give a voice to as many groups as possible. As the members of the Committees change over time, there will be a need to constantly review

membership to ensure the representation remains reflective of the sector.

Processes: There is a risk that without clearly defined processes, bringing the large number of diverse DHCRC participants together to conduct projects will be uncoordinated and difficult, decision-making will be misunderstood or unclear and investment decisions difficult to rationalise. To assist with engagement of participants and ensure transparency, the Board implemented the REIF to define a clear three-stage process for project approval, with well identified selection criteria. There is an ongoing risk if the processes set out in the REIF are not consistently followed that participants will begin to question the project approved and the funding which is being allocated.

Intellectual Property: Negotiations around intellectual property have delayed putting early projects in place. There is a risk that negotiations around intellectual property will inhibit the development of projects within the DHCRC. This needs to be managed to ensure that all parties benefit from projects and the best means for translation and impact is chosen. To mitigate this risk, the DHCRC has chosen to take a flexible approach on the management of intellectual property, facilitating its industry participants (where they are the best fit) to commercialise the IP that is developed.



2. Performance Against Activities



During the DHCRC's first year, priority has been given to consulting with participants, establishing the research program and developing projects. In addition, to meet capacity building and commercial targets, activities around education, IP and commercialisation have been commenced. Underpinning this has been the DHCRC's core

mission of developing collaboration amongst our participants to advance the development of digital health in Australia. A summary of activities and highlights for the DHCRC in each of these principle areas, follows below.

2.1. Research

2.1.1 Partner Workshops

Eight multi-partner workshops were held between September 2018 and May 2019. The workshop topic areas reflected the research programs in the DHCRC's bid and settings of care relevant to our participants. Over 240 representatives from our participant organisations and the broader ecosystem attended the workshops.

Workshops included:

- + Rural & Remote Workshop (Perth, September, 2018);
- + Rehabilitation Workshop (Melbourne, October, 2018);
- + Residential & Assisted Aged Care Workshop (Melbourne, November, 2018);
- + Primary & Acute Workshop (Sydney, November, 2018, 3 day workshop):

- Changing health trajectories through prevention and using personalised models of care;
- Understanding clinical practice to support transparency and improve performance;
- Improve, value, quality and safety through intelligent decision support for clinicians, teams and organisations;

- + Data Workshop (Canberra, March, 2019);
- + Home and Workplace Workshop (Sydney, May 2019).

Research Matrix and Flagship Programs derived from workshops and consultation

From the outputs of the workshops and participant consultation, seven flagship program areas have been developed. They include four cross-cutting themes and five areas of special interest that relate to clusters of participants (see Figures 2 and 3).

Figure 2 – DHCRC Research and Development Matrix

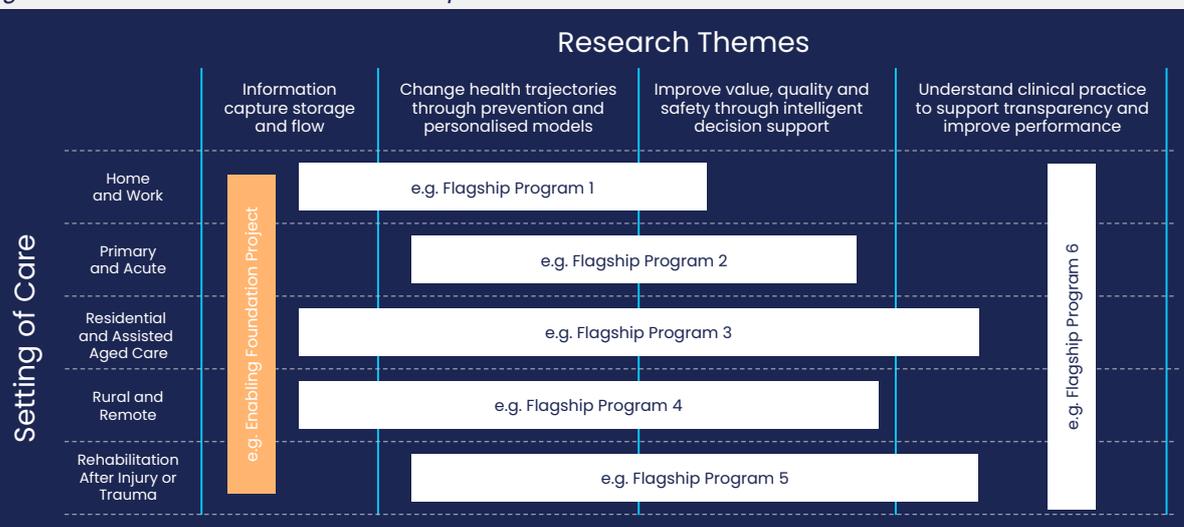


Figure 3 – DHCRC Flagship Programs

| Settings of Care | Flagship | Summary |
|---|--|--|
| Common across all Settings of Care | Changing health trajectories in chronic disease | Use different data sets to identify populations who have or are at risk of developing chronic disease. Provide personalised models of care, digitally - supported behavioural interventions and end-to-end management. Avoid unnecessary hospital admissions and empower people to manage their own health and wellness. |
| | Transparency of data to optimise clinical practice and referral | Use health care, administrative and other data to measure and understand clinical variation and practice; support reflection and personalised professional development; support appropriate consumer referral; and drive efficiency through payment and claims optimisation. |
| | Intelligent decision support to improve value and efficiency | Use comprehensive data and information across care continuum to understand consumer risk and organisational performance. Provide intelligence to consumers, clinicians, managers and administrators to predict and prevent poor outcomes and low-value care. E.g. improve quality use of medications. Support resource allocation and business efficiency. |
| | Enabling information discovery and application | Explore issues surrounding ethics, governance and privacy of linking and using health data. Development of targeted tools and resources to support and facilitate health data sharing and application in practice, quality improvement, trials and research. |
| Rural and Remote | Changing health trajectories in chronic disease in rural and remote settings | Address issues that are specific to rural and remote including access, maintaining viable healthcare services, integrating social determinants of health, overcoming technology challenges, reducing digital divide and co-designing culturally appropriate programs. |
| Rehabilitation following injury or trauma | Digitally coordinated and supported rehabilitation management | Use comprehensive data following injury and link with previous history to predict risk and improve outcomes of rehabilitation. Deliver personalised, technology-supported interventions with portals that support communication between care providers and with clients and family. |
| Residential and Assisted Aged Care | Digitally supported and coordinated aged care management | Use resident, service and clinical data to improve quality, reporting and business efficiency. Support coordinated, shared care and resident quality of life through personal and family portals. Provide real-time dashboards and knowledge to support continuous quality improvement and decision support. |

Key research questions and outcomes have been defined for each Flagship (Appendix 1).

Given the breadth of digital health, the DHCRC research approach focusses on developing larger multi-partner programs made up of linked projects that enable each Flagship outcome. These include cross-jurisdictional programs of work that are endorsed and funded by our jurisdictional participants and delivered in partnership with our service, technology and university participants. Additional major programs of work that do not directly involve jurisdictional participants, but cut across multiple states and participants, include programs such as practice analytics that will be run through medical colleges, regulatory and private hospital participants.

In addition to our larger programs of work, our research approach allows for the development of smaller strategic projects that align with Flagship programs and meet the needs of our varied participant base. In addition, all our programs of research and development aim to extend the capability of existing participant data products or create new data products and technologies (as described in the sample projects below).

Our focus on larger, cross-jurisdictional and multi-partner programs necessitates a longer development timeline. It is our view that this will be offset over the life of the DHCRC through the development of more sustainable and commercially significant programs of work that are endorsed by the organisations that ultimately approve and/or fund major digital health initiatives in Australia.

2.1.2 Flagship Research and Education Directors (FREDs)

Six FREDs were appointed by end of June 2019 through a competitive process. They are:

- + James Boyd (Curtin University) – Enabling Information Discovery and Application;
- + Rachel Davey (University of Canberra) – Changing Health Trajectories;
- + Steven McPhail (Queensland University of Technology) – Intelligent Decision Support;
- + Deborah Parker (University of Technology Sydney) – Residential Aged Care;
- + Suzanne Robinson (Curtin University) – Rural and Remote;
- + Deborah Theodorus (University of Queensland) – Rehabilitation.

The FREDs:

- + provide leadership in their Flagship area;
- + facilitate rapid development of projects and trouble shoot issues;
- + help structure overall program development;
- + assist in leveraging thinking and projects across Flagships;

- + assist in development of larger cross-jurisdictional programs; and
- + identify academic expertise and supervise PhDs and postdocs as required.

2.1.3 Research and Education Investment Framework (REIF)

The REIF was developed by the REIC and endorsed by the Board in March 2019.

The Framework is available on our [website](#) and provides the guidelines for participant applications for funding as well as the criteria against which

applications are assessed.

Appendix 2 summarises the steps involved in the Framework process and the key person involved in delivering each of the tasks associated with those steps.

2.1.4 Sample Projects

Projects in the DHCRC pipeline as at FY19 end are detailed in Appendix 3. The following are a sample of projects that are under development or underway.

| 1) Making HMS data available for research purposes | |
|--|---|
| Flagship | Enabling information Discovery and Application |
| Industry Participants | HMS |
| Status | Live |
| Summary | <p>Our US participant, HMS, brings a major asset to the DHCRC in the form of Medicaid data sets for up to 20 million lives across an initial five diverse states in the US. Medicaid data sets are a rich source of linked health data across primary, acute, community and other health services. No such comparable data set exists in Australia.</p> <p>DHCRC is in the process of establishing a portal for participants to access these data sets after completing a simple application process. The data will be managed through the DHCRC using Ronin software as an interface to State-side Amazon web servers.</p> <p>Access to such data sets is valuable for the testing of Artificial Intelligence models as well as exploring patient journeys and outcomes in response to interventions or social determinants of health. While the data relates to US citizens, it enables analytics not possible with Australian data sets.</p> |

| 2) Pilot analytics of Emergency Department live data for patient flow | |
|---|---|
| Flagship | Intelligent Decision Support |
| Industry Participants | Alcidion, NSW Health, Metro South Health Service (QLD), ACT Health and SA Health, Sydney Local Health District |
| Status | Under development |
| Summary | <p>It is now widely recognised that existing major Electronic Medical Record Systems do not provide all the decision support tools required to optimise patient care and safety. Our technology participant Alcidion is increasingly being acknowledged as a world's leader in the application of mobile decision support that overlays existing EMR. Multiple jurisdictions in Australia and overseas are looking to implement the Alcidion Miya Platform.</p> <p>The challenge for Alcidion and other emerging systems of engagement is to demonstrate that their solutions can operate at scale within the complex environment of an acute care service.</p> <p>A program of work is under development across multiple jurisdictions that will research the impact of mobile health platforms such as Alcidion on work flow and human computer interface at scale.</p> <p>This research will enhance the capability of the Alcidion platform and extend its commercial application both in Australia and internationally as well as contribute to the general body of knowledge in this emerging area.</p> |

| 3) Using performance data to reduce clinical variation and support practice improvement | |
|---|--|
| Flagship | Transparency of Data |
| Industry Participants | Cabrini Health, Sydney Adventist Healthcare, St John of God and Royal Australasian College of Physicians, Australian Health Practitioner Regulatory Authority (AHPRA) and the Australian Commission for Safety and Quality in Healthcare |
| Status | Under development |
| Summary | <p>There are increasingly large amounts of data being collected that relate to the clinical practice of teams and individual practitioners.</p> <p>To date, engagement with this data is limited and often managed in a top down reactive way in response to identified problems. There has been limited engagement of teams on the ground in analysis of their own data sets and little or no support for how these teams can routinely use this information to improve patient outcomes or reduce variation. This is a major gap.</p> <p>This project builds on the innovative work of our participant Cabrini Health who has been developing data feedback products in collaboration with their clinical teams that are being used to improve care and reduce complications.</p> <p>The project will look to develop a minimal viable product for use across hospital services. This product will be refined through an investigation of how data can be used and integrated into routine practice to improve care. The project will also investigate how participation in such a program will align with new mandatory training requirement outlined in the Professional Practice Framework developed by the Medical Board of Australia and overseen by the Professional Colleges. The project will also look at how participation in the program will meet the new mandatory Australian Health Governance Standards. Both of these requirements represent major enablers for the sustainability of any data products developed.</p> |

| 4) Integrating electronic health record and personal smartphone data to create a personalised digital community health care model | |
|---|---|
| Flagship | Changing health trajectories in chronic disease |
| Industry Participants | goAct Pty Ltd |
| Status | Under development |
| Summary | <p>This project represents a smaller strategic project that has the potential to develop into a major program of work.</p> <p>The AISquared (Flinders University) and MINDtick (goAct) platforms are currently deployed independently in community health clinics (e.g. public mental health services). AISquared brings utility and adds real-world value to electronic health record (EHR) data from the Australian government My Health Record initiative. MINDtick brings personalisation (personal data) and day-to-day momentary (temporal) assessment, monitoring and awareness of chronic health conditions via a smartphone application.</p> <p>Linking the day-to-day objective measures and insights from personal data with EHR data is a more powerful combination for developing algorithms that lead to improved decision support and early intervention opportunities. This project will create new tools by combining the two existing platforms – MINDtick and AISquared – and integrating these tools within existing programs to enable a personalised digital community health care model.</p> <p>In community health clinic settings, these tools guide case managers to better manage caseloads, prioritise patients for discharge and incorporate additional insights on patients' health and behaviours outside the clinic in order to further personalise decisions and monitor patient health trajectories and outcomes.</p> <p>The MINDtick platform will also be positioned in general populations e.g. workplace settings (SMEs) and general community settings (defined by geographical areas e.g. local councils) to allow data from more diverse non-clinical cohorts to be made available for analysis.</p> <p>Members of these general population non-clinical communities receive a smartphone application (MINDtick) that serves two purposes: first, it meets a user driven need with the community and through this achieves broad reach and engagement; second, it addresses health and wellbeing through regular assessments of every-day mental health, wellbeing, and behaviours. The app offers just in time self-help strategies and resources. Furthermore, on a needs basis, the platform algorithms step users up by linking and connecting them to available health services if self-help care is not working.</p> |



2.2 Commercialisation

The DHCRC has established a Translation and Commercialisation Committee (T&CC) which works closely with its REIC on issues related to the commercialisation of outputs from DHCRC research projects. The T&CC met for the first time on 17 April 2019 and considered some research projects under development and the likely IP

(“products”) that might be generated from these. In addition, the T&CC had a broad discussion about its role and how it might be most effective. More work needs to occur around the commercialisation strategy for the DHCRC, and the most effective approach to achieving this. This work will occur in FY20.

2.3 Education and Training

2.3.1 Higher Degree by Research Program

The DHCRC’s Higher Degree by Research (HDR) Program (see Appendix 4) was established during this period and the first intake of students will commence in FY20. The Program will contribute to the training of the next generation of health informaticians, technologists and data scientists. It includes four-year PhD and two-year research masters degrees, with full, part-time and top-up scholarships available for domestic and international students.

The DHCRC HDR Program offers students a diverse range of personal development opportunities and support, embedded industry experience and financial assistance (including an education allowance and access to a merit-based

fund for international collaboration purposes). It also incorporates mentoring, tailored training and professional development activities, including a personalised learning plan, annual conference and education retreat. The Program will equip students with the skills to succeed and deliver impact in a health sector that is rapidly evolving as a consequence of digital transformation.

The HDR Program is the first major component of a strategic Capability and Capacity Building Program that aims to build the workforce and digital literacy of Australia’s health care sector. We will be publishing the full Capability and Capacity Building Program in FY20 and making appropriate investments to enable this.

2.3.2 Digital Health MOOC

In FY19, the DHCRC partnered with the University of Sydney and NSW Health to deliver a Massive Open Online Course (MOOC) that provides the existing and future health workforce with insights into the use of health care data. The MOOC, titled ‘Using clinical health data for better healthcare’, consists of over 30 videos and associated learning resources, delivered by subject matter experts from across health, education, government and industry.

The content shows those enrolled how health data contained within digital systems can be utilised and assists them to build foundational capabilities in information seeking, knowledge creation and decision making.

2.4 Intellectual Property (IP) Management

One of the primary barriers to progressing the development of projects from plan/agreement stage to delivery has been negotiations around IP. To improve this process the DHCRC has decided to take a flexible approach to IP management. In this context, it has determined a default position from which parties are able to commence negotiations which results in the DHCRC owning the Project IP. However, the DHCRC will allow project parties to own Project IP or grant rights to utilise the Project IP where another project party provides the best

means for commercialisation or translation for the IP.

The DHCRC maintains a register of all background, project and third party IP used in projects and requires all project parties to comply with the National Principles of IP Management for Publicly Funded Research.

There was no commercialisation of IP in this first year of operation and no IP has yet been formally registered by the DHCRC.

2.5 Collaboration

The DHCRC has focussed on fostering collaboration amongst its participants through a variety of structured and unstructured activities. In summary:

- + The DHCRC hosted eight formal multi-partner workshops that were aligned with the research programs as described above. These workshops were purposely designed to facilitate collaboration and understanding between all participants, as well as develop the Research Matrix and Flagships;
- + The DHCRC has held state-based workshops in Western Australia, Queensland and Victoria to foster collaboration amongst participants at a state level and facilitate sharing of project development across jurisdictions;
- + The DHCRC has hosted a number of meetings between related SME groups, such as our small to medium technology companies, to facilitate development of shared projects. For example, meetings were held between participants working in the area of primary and acute care data linkage such as Outcome Health and PenCS;
- + The DHCRC has facilitated and supported multiple specific meetings between participants that purchase technologies and participants that develop technology solutions to define the research and development that will support further product development. For example, meetings were held between participants that provide decision support software such as Alcideon and jurisdictional and health provider partners such as eHealth NSW, Sydney Local Health District, ACT Health and SA Health;
- + The DHCRC has shared a number of project concept proposals developed by its participants with other DHCRC participants and potential participants to increase collaboration. An example of this includes the expansion of the Performance Feedback Program from a single private hospital partner to potentially include four private hospitals, Health Roundtable, Royal Australasian College of Physicians and Royal Australasian College of Surgeons;

- + To support collaboration between our academic participants, the DHCRC has established an academic leaders group that meets monthly with a minimum of one representative from every university. At this meeting, a summary of developing projects is provided to foster collaboration. In addition, DHCRC showcases have been held at a number of universities to foster broad cross-disciplinary input. This has included University of Queensland, Queensland University of Technology, Monash University, Curtin University, Royal Melbourne Institute of Technology, Monash University, Western Sydney University and Federation University;
- + The DHCRC has also actively been meeting with organisations such as the Advanced Health Research Translation Centres (AHRTCs) that are working in the digital health context to promote collaboration and reduce duplication.

2.6 SME Engagement

Multiple strategies have been applied to engage SMEs in the DHCRC. In summary:

- + The DHCRC provided encouragement and support to all our SMEs to participate in the eight formal workshops held over the first twelve months of the CRC so they could actively help shape the DHCRC's development. This included specific allocation and mixing of SMEs and other participants across tables and the use of specific exercises to promote communication and collaboration across participants at these meetings;
- + The DHCRC has implemented a communication strategy with all SMEs that includes regular monitoring of communication and formal assignment of a Program Manager to each SME to promote engagement. This is supported by the development of the Salesforce CRM system used within the DHCRC;
- + Multiple projects have been built around SME participation and a key strategy in the DHCRC is to link SMEs to payers and funders. Examples include the development of projects linking primary and acute data sets in Victoria which includes our SME participant Outcome Health with the Victorian Department of Health and Human Services or the development of a project between our health data SME GoAct and Flinders University;
- + The DHCRC has facilitated meetings outside of the formal workshops between specific clusters of SMEs around areas such as patient reported outcomes and linkage with primary and acute data sets;
- + The DHCRC has provided an opportunity for a number of SME participants to present their products and activity to other participants through a webinar format;
- + All SME participants have access to the developing education program within the DHCRC to promote capacity building and innovation;
- + Finally, the DHCRC is constantly receiving approaches by SMEs to join the DHCRC. Where SMEs are seen to have the potential for inclusion in any of our projects, a member of the DHCRC will meet with these enterprises to discuss opportunities.

2.7 Communications

The DHCRC developed and widened its communication mechanisms to enable continuing effective communication with its industry and university participants; the media; federal politicians and policy advisors; and many other external stakeholders.

2.7.1 Monthly E-Newsletter

DHCRC's monthly e-newsletter was significantly expanded from April 2019 to include a rolling series of profiles on its participants and the work they are undertaking in the digital health space. This supports the view that the DHCRC has an important role to play as an information-sharing exchange to keep all stakeholders informed of the work being undertaken in the digital health sector.

Substantial effort has been made to ensure the DHCRC's newsletter is engaging, informative, visually appealing, and that it is a 'go to' reference for essential information on developments in research and development in digital health. Feature articles are placed at the top of each newsletter to engage readers, and sections have been added to the newsletter highlighting key events

2.7.2 Social Media

Much like the e-newsletter, the DHCRC's social media following continues to grow significantly. The DHCRC had as at 30 June 2019:

- + over 900 followers on Twitter;
- + over 500 followers and 500 page likes on Facebook; and
- + almost 500 connections on LinkedIn.

The DHCRC intends to use social media in a number of ways:

The DHCRC has significantly increased its external communication reach during the reporting period, while also maintaining effective and regular internal communication (principally via email updates) to the DHCRC's participants.

and conferences, 'must read' publications and reports, and a wide variety of other news items. The DHCRC will commence a series of informative webinars in FY20 which will be promoted through the e-newsletter and our social media channels.

This approach is resulting in a strong and growing readership of the newsletter, and the 'click through' rate of each subsequent newsletter continues to grow. The newsletter is now being distributed to more than 2300 recipients - a significant increase from the 315 recipients in February 2019. A link to each newsletter is also posted on DHCRC's social media channels – Facebook, Twitter and LinkedIn – in order to further grow the reach of the newsletter and its articles.

- + to promote the research projects it is undertaking with its participants, other work it is undertaking, and other services it is offering to the digital health sector (for example, its webinar series);
- + to promote key industry events and initiatives that it is supporting; and
- + as a regular information-sharing mechanism to update stakeholders on key developments and research and development work being undertaken in the digital health space, both in Australia and overseas.

2.7.3 Logo and Website

The DHCRC's logo and website underwent a significant re-design during the reporting period. Feedback on the re-design has been very positive. The website is now visually appealing and easy to navigate. The website is a very important

component of the DHCRC's communication toolkit, and it continues to be developed as more content is added and the DHCRC implements additional initiatives.

2.7.4 Assessment of Effectiveness

The success of DHCRC's internal and external communication mechanisms in communicating with its participants and other key stakeholders - and also in effectively promoting the DHCRC's work - is regularly considered and assessed at meetings of

the DHCRC's management and advisors.

A variety of other strategies are also being considered to further broaden the reach of the DHCRC's messaging as the DHCRC builds its portfolio of projects and initiatives.

2.8 Participants and Third Parties

Details of participants as at 30 June 2019 are provided below.

| Participant Name | Participation Type | ACN/ABN | Organisation Type | Status |
|---|--------------------|----------------|-----------------------|--------|
| Cabrini Health Limited | Core | 33 370 684 005 | Organisation | Active |
| Commonwealth Department of Health | Core | 83 605 426 759 | Australian Government | Active |
| Curtin University | Core | 99 143 842 569 | University | Active |
| Department of Health (Northern Territory) | Core | 84 085 734 992 | State Government | Active |
| Federation University Australia | Core | 51 818 692 256 | University | Active |
| Flinders University | Core | 65 542 596 200 | University | Active |
| Guildlink Pty Limited | Core | 83 090 249 960 | Organisation | Active |
| Health Management Systems Inc. | Core | N/A | Large Industry | Active |
| Insurance Australia Group Limited | Core | 60 090 739 923 | Large Industry | Active |
| Lorica Health Pty Ltd | Core | 50 107 188 974 | Individual SME | Active |
| Macquarie University | Core | 90 952 801 237 | University | Active |
| Metro South Hospital and Health Service | Core | 86 834 068 616 | Organisation | Active |
| Ministry of Health (NSW) | Core | 92 697 899 630 | State Government | Active |
| Monash University | Core | 12 377 614 012 | University | Active |

| Participant Name | Participation Type | ACN/ABN | Organisation Type | Status |
|--|--------------------|----------------|-------------------|--------------------------------------|
| Peter MacCallum Cancer Institute | Core | 42 100 504 883 | Organisation | Active |
| Queensland Department of Health (being the State of Queensland acting through Queensland Health) | Core | 66 329 169 412 | State Government | Active |
| Queensland University of Technology | Core | 83 791 724 622 | University | Active |
| Royal Melbourne Institute of Technology | Core | 49 781 030 034 | University | Active |
| Swinburne University of Technology | Core | 13 628 586 699 | University | Active |
| The University of Queensland | Core | 63 942 912 684 | University | Active |
| The University of Sydney | Core | 15 211 513 464 | University | Active |
| University of Canberra | Core | 81 633 873 422 | University | Active |
| University of Technology Sydney | Core | 77 257 686 961 | University | Active |
| University of Wollongong | Core | 61 060 567 686 | University | Active |
| Victorian Department of Health and Human Services | Core | 74 410 330 756 | State Government | Active |
| WA Country Health Services | Core | 28 680 145 816 | State Government | Active |
| Western Sydney University | Core | 53 014 069 881 | University | Active |
| HAMB Systems Limited | Core | 44 053 315 772 | Individual SME | Withdrawn (approved by Commonwealth) |
| Health Care Australia Pty Limited | Core | 93 117 285 300 | Large Industry | Withdrawn (approved by Commonwealth) |
| Janchor Partners Management Limited HK | Core | N/A | Individual SME | Withdrawn (approved by Commonwealth) |
| ACT Health | State Government | 82 049 056 234 | State Government | Active |
| Adventist Healthcare Ltd | Additional | 76 096 452 925 | Organisation | Active |
| Alfred Health | Additional | 27 318 956 319 | Organisation | Active |
| Alicidion Corporation Pty Ltd | Additional | 62 093 148 488 | Individual SME | Active |
| Amgen Australia Pty Ltd | Additional | 31 051 057 428 | Large Industry | Active |

| Participant Name | Participation Type | ACN/ABN | Organisation Type | Status |
|--|--------------------|----------------|-------------------|--------|
| ANDHealth Ltd | Additional | 61 783 5542 | Individual SME | Active |
| Australian Commission on Safety and Quality in Health Care | Additional | 97 250 687 371 | Organisation | Active |
| Australian Digital Health Agency | Additional | 84 425 496 912 | Organisation | Active |
| Australian Health Practitioner Regulation Agency | Additional | 78 685 433 429 | Organisation | Active |
| Boundless Pty LTD | Additional | 12 158 880 169 | Individual SME | Active |
| Bupa Foundation (Australia) Limited | Additional | 67 113 817 637 | Organisation | Active |
| Capital Health Network | Additional | 82 098 499 471 | Organisation | Active |
| Care Circle Health Pty Ltd trading as HELPA. APP | Additional | 37 626 319 051 | Individual SME | Active |
| Complexity Science Medical Systems Pty Ltd | Additional | 19 139 598 593 | Individual SME | Active |
| Deloitte Consulting Pty Ltd | Additional | 86 611 750 648 | Large Industry | Active |
| Department of Health WA | Additional | 28 684 750 332 | State Government | Active |
| Eastern Health | Additional | 68 223 819 017 | Organisation | Active |
| Eastern Melbourne Healthcare Network Ltd | Additional | 13 603 658 895 | Organisation | Active |
| FRED IT Group Pty Ltd | Additional | 68 109 546 901 | Individual SME | Active |
| Gippsland Health Network Limited | Additional | 52 155 514 702 | Organisation | Active |
| GoAct Pty Ltd | Additional | 28 142 877 049 | Individual SME | Active |
| Infoxchange | Additional | 74 457 506 140 | Individual SME | Active |
| LoneAlarm Pty Ltd | Additional | 68 169 812 159 | Individual SME | Active |
| Melbourne East General Practice Network Limited | Additional | 86 129 637 412 | Individual SME | Active |
| Metro North Hospital and Health Service | Additional | 18 496 277 942 | Organisation | Active |
| Mirus Australia Pty Ltd | Additional | 146 677 312 | Individual SME | Active |
| Pen CS Pty Ltd | Additional | 75 606 033 112 | Individual SME | Active |
| Persona Informatics Inc. | Additional | N/A | Individual SME | Active |

| Participant Name | Participation Type | ACN/ABN | Organisation Type | Status |
|--|--------------------|----------------|-------------------|--------------------------------------|
| Potential(x) Pty Ltd | Additional | 31 625 837 970 | Individual SME | Active |
| Pryzm Health Pty Ltd | Additional | 56 627 926 694 | Individual SME | Active |
| Royal Australasian College of Physicians | Additional | 90 270 343 237 | Organisation | Active |
| Royal Australasian College of Surgeons | Additional | 29 004 167 766 | Organisation | Active |
| Sapphire Holdings Group Ltd | Additional | 75 106 048 579 | Individual SME | Active |
| Sisu Wellness Pty Ltd | Additional | 17 166 905 602 | Individual SME | Active |
| South Eastern Melbourne Primary Health Network Ltd | Additional | 65 603 858 751 | Organisation | Active |
| ConSpringday Pty Ltd | Additional | 26 126 617 025 | Individual SME | Active |
| St John of God Health Care Inc | Additional | 21 930 207 958 | Organisation | Active |
| The University of Notre Dame Australia | Additional | 69 330 643 210 | University | Active |
| University of South Australia | Additional | 37 191 313 308 | University | Active |
| University of Western Australia as the Administering Organisation for the Population Health Research Network | Additional | 37 882 817 280 | Organisation | Active |
| WA Primary Health Alliance | Additional | 11 602 416 697 | Organisation | Active |
| Wave Digital Pty Ltd | Additional | 83 151 668 647 | Individual SME | Active |
| Yourtown | Additional | 11 102 379 386 | Individual SME | Active |
| Transport Accident Commission | Additional | 22 033 947 623 | Organisation | Withdrawn (approved by Commonwealth) |



2.9 Governance – Board, Committees and Key Staff

2.9.1 Status

The DHCRC is a Company Limited by Guarantee, registered with the Australian Charities and Not-for-Profit Commission. It attained not-for-profit status

effective 11 May 2018, and is therefore tax exempt from its commencement.

2.9.2 DHCRC Governance Structure

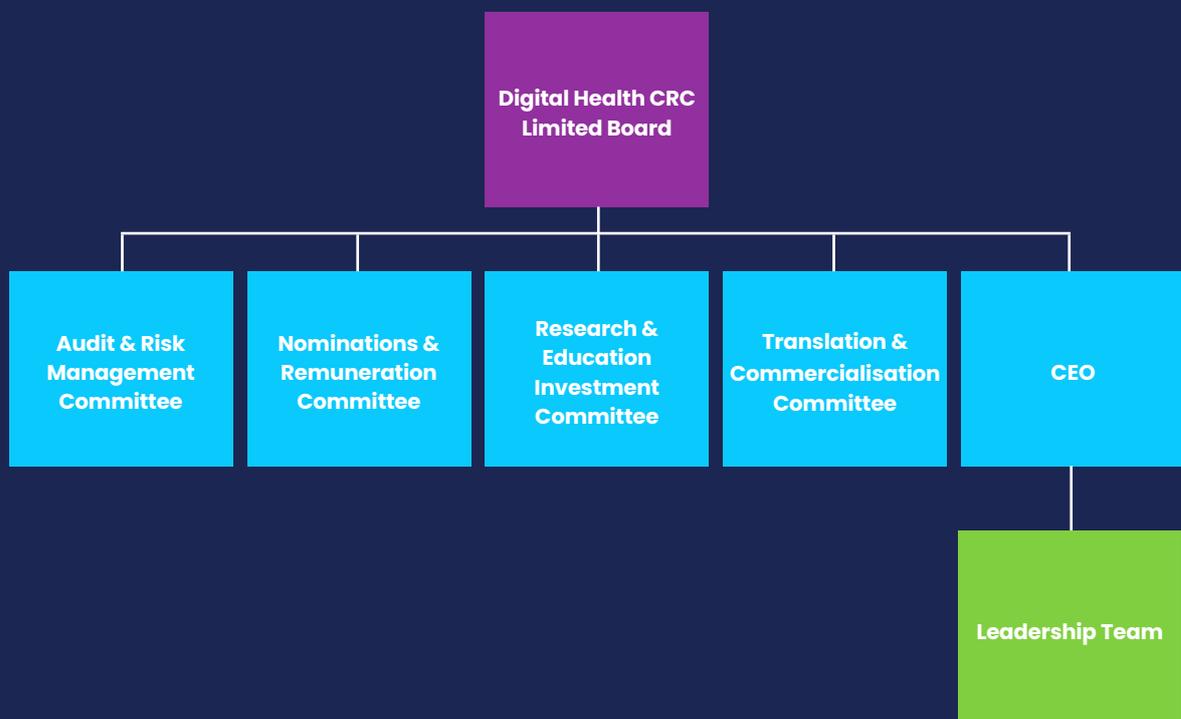
The DHCRC is governed by a Board of Directors and subject to a Constitution. There are four sub-committees (Audit & Risk Management, Nominations & Remuneration, Research & Education Investment and Translation & Commercialisation). The structure of the DHCRC is presented in Figure 4.

March 2019) have been appointed as Company Secretaries throughout FY19. Ms Martin was also appointed as Director of Commercial and Operations from February 2019.

No significant governance or management issues were experienced.

Mr David Wright, Mr Carl Middlehurst (each from July 2018-March 2019) and Ms Eve Martin (from

Figure 4 – DHCRC Governance Structure



2.9.3 DHCRC Board

Professors Bennett and Aitken and Dr Hambleton were appointed as Directors upon the legal establishment of the DHCRC on 11 May 2018, having served on the DHCRC Bid Advisory Board. Professors O’Kane, Robinson and Samuel, and Dr Evans, were recommended for appointment by the Nominations & Remuneration Committee. Following consultation with proposed core participants, these appointments were approved by the sole Member at that time, Lorica Health Limited, and the DHCRC Board on 27 June 2018.

The DHCRC officially commenced operations on 1 July 2018 with 7 Board Members/Directors. There was one change to the Board composition during FY19, with the resignation of the Board Chair, Professor Mary O’Kane AC on 14 June 2019. The Board approved the appointment of Professor Christine Bennett AO as Interim Chair following discussion with the Commonwealth and noting that Professor Bennett resigned from the Lorica Board.

2.9.4 Board Membership

Profiles of Directors for FY19 are provided below.



Professor Mike Aitken AM

Appointed 11 May 2018

Member, Research & Education Investment Committee

Member, Translation & Commercialisation Committee

PhD, MBS BBS (Hons)

Non-Independent

Mike is an academic turned entrepreneur who sold the SMARTS Group to NASDAQ in 2010, having previously established the Securities Industry Research Centre of Asia Pacific where he co-developed Thomson Reuters Tick History, and the Capital Markets CRC. He then established Capital Market Technologies to act as a venture fund and invest in start-ups that enhance market transparency and increase the fairness and efficiency of different marketplaces, such as markets for mortgages (DealMax), supply chains (Ordermentum), building management CIM Enviro and digital currency (DigiCash) and commodities trading (Infinigold). He has also moved into the detection of fraud in the health and general insurance markets (Lorica Health).

Mike is a specialist in the area of security market design, with a particular interest in market integrity assessment and the design of information systems for real-time fraud detection (e.g. insider trading, market manipulation).

Mike’s latest work, Market Quality Dashboard, moves from fraud to the efficacy of security market design. Similarly, in the health domain work is moving from the detection of fraud to the efficacy of health intervention. He is the lead expert in the consulting arm of the CMCRC and provides specialist services in the context of allegations of insider trading, market manipulation and continuous disclosure breaches.

In 2010, Mike was named Ernst &Young IT Entrepreneur of the Year and received the Prime Minister’s ICT Exporter of the Year award for his work with SMARTS. In recognition of his service to the Australian education, business and finance sectors, he was inducted as a member of the Order of Australia in 2014. In 2016 Mike Aitken was awarded the Prime Minister’s Prize for Innovation.



Professor Christine Bennett AO

Appointed 11 May 2018

Interim Board Chair from 14 June 2019

Chair, Research & Education Investment Committee

Chair, Nominations & Remuneration Committee from 14 June 2019

MBBS FRACP Master Paed GAICD

Non-Independent

Professor Bennett was appointed to the role of Professor and Dean, School of Medicine, Sydney, The University of Notre Dame Australia in May 2011.

Professor Bennett is a specialist paediatrician and has over 30 years of health industry experience in clinical care, strategic planning, business operations and Chief Executive experience in the public, private and not-for-profit sectors.

Professor Bennett was Chair of Sydney Children's Hospitals Network until May 2019, an independent director of the Capital Markets CRC until October 31 2018 and on the Board of Lorica until 1 July 2019. She is currently Non-Executive Director on the board of Regis Limited and is Chair of GAMSAT Ltd.

In February 2008, Professor Bennett was appointed as Chair of the National Health and Hospitals Reform Commission providing advice on a long term blue print for the future of the Australian health system and aged care. The Commission's final report was presented to the Government in June 2009, and included recommendations to promote digital health in Australia.

Professor Christine Bennett was awarded an Officer of the Order of Australia (AO) in the Australia Day 2014 Honours List.



Dr Bronwyn Evans

Appointed 27 June 2018

Resigned 6 July 2019

Chair, Audit & Risk Management Committee

BE (Elec), PhD, FTSE, Hon FIEAust, CPEng

Independent

Bronwyn Evans is the Chief Executive Officer and an Honorary Fellow of Engineers Australia. She was previously the CEO of Standards Australia, the Chair of MTPConnect (the Industry Growth Centre for Medical Technologies and Pharmaceuticals), and Vice President (Finance) of the International Standards Organisation (ISO) and a Director of the Australia-Japan Foundation. She has 35 years experience in various engineering roles and in 2014 and 2015 was recognised as one of Australia's 100 most influential engineers, and in 2016 was recognised as an AFR/Westpac 100 Women of Influence.



Dr Steve Hambleton

Appointed 11 May 2018

Member, Nominations & Remuneration Committee

MBBS FAMA FRACGP(hon) FAICD

Independent

Dr Steve Hambleton is a GP in Kedron in Brisbane and a former State and Federal President of the Australian Medical Association and an Adjunct Professor at the University of Queensland.

He was the Chairman of National eHealth Transition Authority (NEHTA) and is currently a co-chair of the Clinical Programs, the Clinical Reference Group and the My Health Record Expansion Program Steering Group in the Australian Digital Health Agency.

He also holds board positions with Avant Mutual Group Limited, the AMA Queensland Foundation and the Queensland Aboriginal and Islander Health Council.



Professor Mary O'Kane AC

Appointed 27 June 2018

Resigned 14 June 2019

Board Chair to 14 June 2019

Chair, Nominations & Remuneration Committee

BSc, PhD

Independent

Professor Mary O'Kane is Principal of O'Kane Associates, a Sydney-based consulting practice specialising in government and research reviews. She is the Chair of the New South Wales Independent Planning Commission and a company director, being Chair of the boards of the Space Environment Research Centre, Aurora Energy and the Institute of Marine and Antarctic Studies at the University of Tasmania, and a Director of the Innovative Manufacturing CRC and the Cross River Rail Delivery Authority.

Professor O'Kane was NSW Chief Scientist & Engineer from 2008-2018 and Vice-Chancellor of the University of Adelaide from 1996-2001. She was formerly Chair of the Australian Centre for Renewable Energy and is a former member of the Australian Research Council, the CRC Committee, the Tax Concession Committee, the board of the CSIRO and the board of FH Faulding & Co Ltd. She is a Fellow of the Australian Academy of Technology and Engineering and an Honorary Fellow of Engineers Australia.



Professor Bruce Robinson AM

Appointed 27 June 2018

Resigned 15 July 2019

Member, Research & Education Investment Committee

MD, MSc FRACP

Independent

Professor Robinson is an Endocrinologist and Dean of the University of Sydney Medical School. He is the current chair of the Group of 8 Deans of Medicine. He has been head of the Cancer Genetics Unit at the Kolling Institute of Medical Research, Royal North Shore Hospital, since 1989. Since 2001, he has been Chairman of Hoc Mai Foundation, a major program in medical and health education and exchange with Vietnam. He is a Board Member of the Woolcock Institute, the ANZAC Research Institute and the Centenary Institute for Cancer Research. He is also Board Member of the Royal Flying Doctor Service (South-Eastern Division) and is Chair of RFDS Medical Advisory Committee. Professor Bruce Robinson is also the chair of the Medicare Benefits Schedule (MBS) Review Taskforce and member of the Primary Health Care Advisory Group (PHCAG).



Professor Graeme Samuel AC

Appointed 27 June 2018

Resigned 5 July 2019

Chair, Translations & Commercialisation Committee

Member, Audit & Risk Management Committee

LLB Melb, LLM Monash, FAICD

Non-Independent

Professor Graeme Samuel AC is a Professorial Fellow in Monash University's Business School and School of Public Health and Preventative Medicine. He is also President of Dementia Australia, Chair of the National Health and Medical Research Council National Institute for Dementia Research, Chair of Lorica Health, Chair of South East Melbourne Primary Health Network and Chair of Airlines for Australia and New Zealand.

Professor Samuel's previous roles include Chair of the Australian Competition and Consumer Commission, Associate Member of the Australian Communications and Media Authority, and President of the National Competition Council. He was Chair of the Australian Government's Panel of the Review of Australia's Independent Medical Research Institutes and advisor to the Department of Health in its review of private health insurance.

Most recently, Professor Samuel was a member of the Australian Prudential Regulation Authority's Panel to conduct a prudential Inquiry into the culture, governance and accountability of Commonwealth Bank of Australia and was Chair of the panel which conducted a capability review of the Australian Prudential Regulation Authority. He has also just completed a review of the Food and Grocery Code of Conduct.

In 2010, he was made a Companion of the Order of Australia for eminent service to public administration through contributions in economic reform and competition law, and to the community through leadership roles with sporting and cultural organisations.

2.9.5 Board Meeting Attendance

Directors attended Board meetings throughout FY19 as follows:

| Director | 27 Jun 2018 | 30 Jul 2018 | 6 Sep 2018 | 2 Nov 2018 | 21 Mar 2019 | 23 May 2019 | Total |
|-------------|-------------|-------------|------------|------------|-------------|-------------|-------|
| M Aitken | Y | Y | N | Y | N | Y | 4 |
| C Bennett | Y | N | Y | Y | Y | Y | 5 |
| B Evans | Y | Y | Y | Y | Y | Y | 6 |
| S Hambleton | Y | Y | Y | Y | Y | Y | 6 |
| M O'Kane | Y | Y | Y | Y | Y | Y | 6 |
| B Robinson | N | Y | N | N | N | Y | 2 |
| G Samuel | Y | Y | Y | Y | Y | Y | 6 |

2.9.6 Board Committees

The following Board Committees have been established, and meetings have been held as indicated below.

| Audit & Risk Management Committee | |
|-----------------------------------|--|
| Chair | Dr Bronwyn Evans |
| Purpose | To assist the Board on matters pertaining to financial reporting, audit and risk management. |
| Meetings | 31 October 2018 |

| Nominations & Remuneration Committee (NRC) | |
|--|---|
| Chair | Professor Mary O'Kane (to 14 June 2019) Professor Christine Bennett AO (from 14 June 2019) |
| Purpose | To assist the Board in the effective discharge of its responsibilities for: <ul style="list-style-type: none"> + Board composition and succession, including nomination of non-executive directors to the Board, and Board performance including performance reviews; + appointment and performance review of the CEO; + establishing and maintaining recruitment, retention and termination policies, and practices for personnel directly reporting to the CEO, and appropriate remuneration and incentive policies and practices, including remuneration of independent directors, Board Committee members and Advisory Panel Chairs and members; + determining performance incentives and remuneration increase policies for staff employed by the DHCRC. |
| Meetings | 18 July 2018 3 September 2018 |

| Research & Education Investment Committee | |
|---|---|
| Chair | Professor Christine Bennett AO |
| Purpose | To advise the Board on investment decisions relating to the Research, Education and Capacity-Building Programs. The scope of responsibility will include: development of research priorities and principles, and a supporting research framework to ensure appropriate scope, quality and utility of research, education and capacity-building; analysis and advice on relevance and potential for translation of research into industry settings and for commercial purposes, including market applications of the research outputs; undertaking appraisal of relevant trends and developments in health and other sciences, technology and analytics both domestically and internationally; and providing advice on any technical, research and education issues. |
| Meetings | 14 November 2018 26 February 2019 16 April 2019 24 June 2019 |

| Translation & Commercialisation Committee | |
|---|---|
| Chair | Professor Graeme Samuel AC |
| Purpose | To advise the Board on strategic and investment decisions to ensure that the DHCRC research program results in successful translation and commercialisation outcomes. For purposes of this charter, translation refers to successful non-commercial utilisation of research outputs for wider public good across industry, government and the community; and commercialisation is the development of new or improved products, services and business processes of commercial value from DHCRC research for participants or for the DHCRC's own spin-out businesses. |
| Meetings | 17 April 2019 |

2.9.7 Key Staff

Details of key DHCRC staff as at 30 June 2019 are as follows:

| Person | Organisation | DHCRC Role | Time Commitment |
|-------------------------------------|---------------------------------|--|-----------------|
| Mr David Jonas | DHCRC | Interim CEO (1 July 2018 – 6 February 2019) | 100% |
| Dr Victor Pantano | DHCRC | Chief Executive Officer (7 February 2019 – ongoing) | 100% |
| Ms Eve Martin | DHCRC | Director, Commercial & Operations/Company Secretary (7 February 2019 – ongoing) | 100% |
| Professor Tim Shaw | University of Sydney | Director of Research & Capacity Building (1 July 2018 – ongoing) | 40% |
| Ms Lee-Ann Breger | DHCRC | Director, Partner Relations & Program Office (1 July 2018 – ongoing) | 50% |
| Associate Professor Federico Girosi | Western Sydney University | Co-Chief Scientist (1 July 2018 – ongoing) | 40% |
| Dr Ben Hachey | DHCRC | Head of Data Science & Innovation (1 August 2018 – ongoing) | 80% |
| Mr David Tomlins | DHCRC | Program & Commercial Manager (20 September 2018 – ongoing) | 80% |
| Professor Barry Drake | University of Technology Sydney | Co-Chief Scientist (1 July 2018 – ongoing) | 40% |

One of the most significant challenges of FY19 was the search for and appointment of a new CEO, replacing the bid and founding CEO, Mr David Jonas.

After a professional search process, Dr Victor Pantano was selected in December 2018 and

commenced as CEO of the DHCRC on 7 February 2019. He has continued to build a strong team to support the activities of the DHCRC.

2.10 Financial Management

The DHCRC has received cash contributions from its participants during FY19 of \$7.462m. This is slightly down from the forecasted \$8.0m committed under agreements, however participant cash contributions have been actively managed and arrangements put in place to recover the shortfall during FY20. Commonwealth funding was in line with expectations.

The DHCRC spent \$4.169m on operational overheads (compared to \$11.295m for total expenditure in the Agreement). However, this reflects delays in getting the research activities of the CRC to planned levels. The net surplus from the first year of operation of the CRC was \$6.845m, and is available to meet the increasing level of research activities over the next six years.

Staff in kind was 1.82 FTE compared to 50.91

in the Agreement, and no non-staff in kind was contributed (vs \$4.182m in the Agreement). This reflects the delay in commencement of research activities.

The DHCRC has implemented financial management and governance practices to ensure that the financial resources of the CRC are well managed and protected. A reforecast budget has been prepared taking into account the delay in commencement of research activities, and will be actively monitored by the Board and management in 2019/20 and beyond.



3. Other Activities



3.1 CRC Future Plans and Transition Arrangements

The DHCRC is at the end of its first year and while it has an eye on sustainability post its 7-year term, the focus has clearly been on start-up activities and laying strong foundations. While the DHCRC will be looking for commercial opportunities, many of which will be an outcome of its research program, to provide a potential source of funding beyond its term, what is emerging is that the DHCRC provides a valuable platform for collaboration around digital initiatives, innovation and development in the health sector. We are seeing many parties who are traditionally competitors willing to work together

through the DHCRC to achieve outcomes not only for their own organisations but for the health sector as a whole. We believe the DHCRC will provide a very powerful platform to allow many of these necessary collaborations to form. We believe that the DHCRC will become a cornerstone for getting things done across organisations and jurisdictions where this has traditionally been difficult. Its not-for-profit and therefore neutral basis, as well as its connections to many parts of the research sector and government are a key asset in this respect.

3.2 Monitoring and Review Activity Update

As FY19 was the first year of operations for the DHCRC, no review has been undertaken.



3.3 Activities Not Covered by the Funding Agreement

During FY19, the DHCRC has entered into the following for the conduct of activities outside of the activities covered by the Funding Agreement:

| Arrangement | Party/ies | Term | Description |
|---|---|-----------------------------------|---|
| Memorandum of Understanding | Innovative Manufacturing CRC | 17 October 2018 – 30 June 2025 | Sharing of information and documentation relating to policies, guidelines, practices, procedures and charters |
| Memorandum of Understanding | MTP-IIGC Ltd t/a MTPConnect | 28 February 2019 – 30 June 2025 | Cooperative activities to advance the Australian health and medical technology and services sector |
| Research Attraction and Acceleration Program Funding Deed | NSW Department of Industry | 18 April 2019 – 30 September 2019 | Facilitate the establishment of the DHCRC |
| Deed of Novation | Commonwealth Department of Health and Capital Markets CRC Limited | 26 June 2019 – 30 June 2021 | To provide for personnel who will work together to scope, develop and implement programs of work around governance, ethics and regulations related to informatics and analytics |



Appendix 1: DHCRC Flagship Outcomes and Aims

Key research questions and outcomes have been defined for each Flagship as follows:

Intelligent decision support to improve value and efficiency

Capture diverse data and information

- * How do we build comprehensive data sets around consumers to support prediction across care?
- * How do we manage privacy and governance alongside need to access identified information?

Predictive modelling

- * How do we predict poor outcomes or low-value care, e.g., adverse drug event, preventable readmissions?
- * How do we link primary and secondary care data to refine assessment of risk?
- * How do we predict resource usage?

Support decision making

- * How do we link prediction of risk with actual change in practice or care processes?
- * How do we engage clinicians, consumers and administrators in prevention of poor outcomes?
- * How do we understand business processes and resource allocation?



Develop real-time dashboards and analytics to support patient-level changes in care delivery across settings



Create new approaches to combining identified data while maintaining privacy



Capture comprehensive data and information across care continuum



Create systems that integrate clinicians, consumers and administrators into risk reduction



Develop predictive analytics to anticipate poor outcomes and resource usage



Build tools to support planning and optimising resource allocation and usage

Changing health trajectories in chronic disease

Identifying population at risk or with unmanaged chronic disease

- * What factors impact on consumers self-identifying risk or symptoms of chronic disease?
- * How can funders/providers use integrated datasets to identify risk or symptoms of chronic disease?

Recruiting, on-boarding and referring

- * Who will benefit most from enrolment in a program and what is best return on investment for system?
- * What factors impact on the recruitment of consumers into programs?

Delivering a managed, personalised program

- * How do you design and structure a personalised care program?
- * How do you integrate with existing programs?
- * How do you manage equity of access to any programs?
- * What economic funding models can support personalised models of care?

Managing data through the cycle

- * How can data be captured and used across an integrated program?
- * What governance, ethical and privacy issues need to be addressed in development of programs?



Using disruptive approaches and AI to identifying those at risk of chronic disease



Automating enrolment into supported and novel programs



Using virtual navigators and automation to optimise chronic disease prevention and management

Transparency of data to optimise clinical practice and referral

Measure variation and benchmark performance

- * How do we capture and collate data for performance analytics?
- * How do we risk adjust for meaningful comparison?
- * How do we assign responsibility of care to teams and individuals?
- * How do we measure quality of practice?

Use transparency of data to optimise performance and choice

- * How do we use performance and other data sets to improve referral choices for clinicians and consumers?
- * How do we link practice data with professional development and performance improvement?
- * How do we leverage performance data to support point-of-care decision making?
- * How do we support organisations to use data to improve performance and efficiency?
- * How do we optimise payment and claims management?



Develop tools to enable risk-adjusted performance benchmarking



Develop tools to support informed referrals for clinicians



Create data-driven systems linking practice with performance improvement for teams and individuals



Build a platform for payers and providers to optimise claim management



Understand clinical variation and apply this knowledge to improve performance and move toward a learning health system

Residential and assisted aged care

Capture diverse resident data and information at entry and across transitions of care

- * How do we capture and collate comprehensive data sets around every resident during their journey?

Using real time data and technologies to support improved care and efficiency

- * How do we support coordinated care and continuous quality improvement?
- * How do we engage families and carers in residents health, wellness and social connection?
- * How do we support facilities to meet reporting and compliance requirements?
- * How do we support facilities to improve business efficiency?
- * How do we ensure culturally appropriate care and support a diverse workforce?



Capture comprehensive data and information across care continuum



Use novel platforms to ensure continuity of care across care settings



Create tools and processes to support services to understand and act on patient preferences



Develop resident and family facing portals to support transparency, shared care and improved health and wellness



Develop real-time dashboards and analytics to support continuous quality improvement and clinical decision support

Changing health trajectories in chronic disease in rural and remote settings

Identifying population at risk or with unmanaged chronic disease

- * What factors impact on consumers self-identifying risk or symptoms of chronic disease?
- * How can funders/providers use integrated datasets to identify risk or symptoms of chronic disease?

Recruiting, on-boarding and referring

- * Who will benefit most from enrolment in a program and what is best return on investment for system?
- * What factors impact on the recruitment of consumers into programs?
- * How do rural and remote consumers access services?

Delivering a managed, personalised program

- * How do you design and structure a personalised care program?
- * How do you support financial viability of rural and remote practice?
- * How do you manage equity of access to any programs?
- * What economic funding models can support personalised models of care?

Managing data through the cycle

- * How do we integrate datasets – including health info, population health; justice, education and housing waiting lists?
- * What governance, ethical and privacy issues need to be addressed in development of programs?



Using disruptive approaches and AI to identifying those at risk of chronic disease



Automating enrolment into supported and novel programs that integrate with existing practices and support financial viability of services



Co-design culturally appropriate programs with communities

Rehabilitation following injury or trauma

Continuously capture data from clients following injury and predict risk of poor trajectories

- * How do we capture and collate comprehensive data sets around every client following an injury?
- * How do we use AI across diverse data sets to predict a client who is likely to have a poor outcome?

Delivering a personalised managed care program

- * What are the cost and benefit to different stakeholders?
- * How do we design and deliver a personalised managed care program?
- * How do you link with existing care processes?
- * How do you fund personalised managed care programs?
- * How can you use health and other data sets to improve the efficiency of rehabilitation programs?



Use novel platforms to ensure continuity of care across care settings



Deliver technology supported and personalised interventions across co-morbidities and injuries



Develop real-time dashboards and analytics to support efficient allocation of resources and improved business processes



Develop portals that supports communication between care providers and with clients and family and provide personalised information at key points



Capture comprehensive data and information following injury and link with previous history to predict risk and improve outcomes of rehabilitation

Appendix 2: DHCRC Process Map

Key research questions and outcomes have been defined for each Flagship as follows:



Appendix 3: Project Portfolio

Key research questions and outcomes have been defined for each Flagship as follows:

| Enabling Information | | |
|----------------------|------------|---|
| Stage | Project ID | Project Title |
| Opportunity | DHCRC-0070 | Digitally enabled rehabilitation journey |
| Opportunity | DHCRC-0060 | Legislative and regulatory environment for flow of data between domains of care |
| Opportunity | DHCRC-0061 | Guidelines and standards for flow of data |
| Opportunity | DHCRC-0054 | Developing and testing an mHealth framework for Australia |
| Opportunity | DHCRC-0062 | Development of a micro-consenting framework |
| Project Plan | | Making HMS data available for research purposes |

| Changing Health Trajectories | | |
|------------------------------|------------|--|
| Stage | Project ID | Project Title |
| Opportunity | DHCRC-0055 | Prevention of thromboembolism – Smartphone APP: 4-Model Decision Support Tool. |
| Opportunity | DHCRC-0043 | Reducing the cost of medication errors and non-adherence |
| Opportunity | DHCRC-0069 | Evaluation of a protocol for cardiac rehabilitation engagement post MI |
| Opportunity | DHCRC-0067 | Post discharge monitoring and behaviour change modification to prevent re-presentation |
| Opportunity | DHCRC-0051 | Supporting healthy behaviour in rural and remote communities |
| Opportunity | DHCRC-0038 | Reach and impact of shopfront health checks |

Changing Health Trajectories

| Stage | Project ID | Project Title |
|-------------|------------|--|
| Opportunity | DHCRC-0041 | Spatial management of health risk: Applying geospatial technology for risk visualisation, hotspot identification, and analysis of geographic variation |
| Opportunity | DHCRC-0028 | Integrating electronic health record and personal smartphone data to create a personalised digital community health care model |
| Opportunity | DHCRC-0016 | Compliance and behavioural modification post-MCI |
| Opportunity | DHCRC-0032 | Developing a mechanism to deploy digital tools aimed at lifestyle modification in primary care |
| Opportunity | DHCRC-0049 | Integrating mental wellness and brain wellness assessment/advice on SiSu stations |
| Opportunity | DHCRC-0005 | Predictive modelling of health trajectories |

Intelligent Decision Support

| Stage | Project ID | Project Title |
|-------------|------------|--|
| Opportunity | DHCRC-0065 | Recognising patient stability, discharge blockers and risks |
| Opportunity | DHCRC-0066 | Improved recognition and management of sepsis |
| Opportunity | DHCRC-0053 | Evaluation of a voice nurse call interface with call triage and task management |
| Opportunity | DHCRC-0052 | Consistent and efficient diagnosis of heart disease |
| Opportunity | DHCRC-0034 | Extracting live data for decision support and phenotyping clinical trials |
| Opportunity | DHCRC-0021 | Wearables for remote monitoring of diabetes |
| Opportunity | DHCRC-0075 | The state-wide hospital diversion risk algorithm |
| Opportunity | DHCRC-0074 | Outcome focused linkage of routinely collected data across the Victorian health sector |

Intelligent Decision Support

| Stage | Project ID | Project Title |
|--------------|------------|---|
| Opportunity | DHCRC-0058 | Pilot analytics of ED live data for patient flow |
| Opportunity | DHCRC-0068 | Active waitlist management: better outcomes through digital collaboration |
| Project Plan | DHCRC-0014 | Improving medication safety in people with renal impairment |
| Project Plan | DHCRC-0013 | Predicting resident deterioration and mortality in residential aged care |
| Project Plan | DHCRC-0011 | Evaluation of a technology platform to assist the provision and planning of aged care |
| Agreement | DHCRC-0006 | Individual level predictive models for management of postoperative pain |

Transparency

| Stage | Project ID | Project Title |
|--------------|------------|--|
| Opportunity | DHCRC-0050 | Using performance data to reduce clinical variation and support practice improvement |
| Opportunity | DHCRC-0056 | Reducing variation in (cardiology) care through performance data feedback |
| Project Plan | DHCRC-0031 | Interpreting health information and low value care |
| Project Plan | DHCRC-0017 | Development of decision support tools to improve outcomes in accident compensation |
| Agreement | DHCRC-0018 | Suture - referral tool |

Appendix 4: Higher Degree by Research Program

Overview

The DHCRC Higher Degree by Research (HDR) Program will provide specialised research training to a small cohort of PhD and research masters students who aspire to be the digital health leaders of the future. It will develop new and emerging talent and produce graduates who understand industry, are confident, competent, collaborative, research-capable and health workforce-ready.

Engaging HDR students as partners in collaborative research is a key feature of the Cooperative

HDR Program Highlights

The DHCRC is ambitious in connecting with the motivations of universities and industry partners to create a more effective and efficient health system in Australia. DHCRC seeks to attract PhD and research masters students from academia and industry through the quality of its program and its potential to support career progression, promotion and employability in health and healthcare.

This unique and elite Program aims to engage proactive students with curious minds, research supervisors who are open-minded and motivated

Industry Placement

In addition to receiving expert supervision from one of DHCRC's 16 universities, each student will spend up to half of their candidature with an industry partner applying knowledge and developing new skills, with many being retained

Scholarships

The DHCRC PhD and research masters (e.g. MPhil or MRes) scholarships have been designed to attract, support and develop the digital health leaders of tomorrow. The scholarship package has been crafted to meet student needs and support achievement of DHCRC milestones. The package

Research Centre model and, in the case of DHCRC, central to building long-term capacity and a sustainable digital health workforce.

The HDR Program's foundation is a shared commitment between DHCRC and university and industry partners. Students will conduct research to answer industry-relevant questions and solve industry-centric problems, while at the same time bring new workforce capability to the health sector.

to engage with industry, and industry mentors/ advisors who are committed and willing to connect with academia.

A DHCRC-supported PhD or masters is not merely a typical research degree, but an educational experience, where students work on cutting-edge digital health projects, solve complex problems and are supported to undertake applied research that inspires change and makes a difference through real-world outcomes.

as employees on completion. Students will gain real-world experience working with industry, while industry will benefit from the research insights of hosted students and their research supervisors.

includes an education allowance and stipend funding (for up to four years for a PhD and two years for a research masters) and is competitive against similar industry PhD and research masters scholarships in the market (e.g. Scientia, Food Agility CRC and the CSIRO iPhD program).

Development

In conjunction with receiving first-class research supervision and industry mentorship, students will complete a targeted and tailored program of development activities that complements their course of study, accelerates their career trajectory and maximises their capacity for making societal impact through research. Students who meet

progress and performance milestones will also be awarded DHCRC accreditation in addition to their research degree.

For more details on the features of the DHCRC HDR Program see Table 1 below.

Table 1: Principal features of the DHCRC HDR Program

| Program feature | Description | Comments |
|-----------------------------------|---|--|
| Annual conference | Opportunity to network, learn, present and share knowledge with other members of the DHCRC community. | Students, research supervisors and industry mentors/advisors to present research (pitch and/or poster) as individuals or teams for monetary prizes. |
| Annual five-day education retreat | Skills and leadership training, community building and networking opportunity. | Multiple streams with elective modules based on needs and stage of candidature. Focus on generic skills (e.g. project management, critical thinking, problem-solving, design thinking, communication, leadership, teamwork, networking, engagement, impact, innovation, commercialisation, self-awareness, wellbeing and creativity) and academic skills (e.g. grant, journal article and thesis writing). Support to facilitate the production of academic and non-academic publications (in accordance with Commonwealth Milestones) will also be provided. This may include the development of toolkits, GitHubs, online courses, educational materials, etc. |
| Capabilities framework | Skills, attributes and behaviours framework used in conjunction with a web-based diagnostic tool allowing users to identify and plan their professional development pathway. | Aligns with personalised development plan . Focus on career development, candidature progression, employability and/or promotion. |
| Collaborative | Collaboration between university, DHCRC, industry and student. | Mutual commitment provides project context. |
| Community | Diverse and inclusive, online and offline communities of practice around common themes. Activities that foster connections include the annual conference, annual five-day education retreat, interdisciplinary team mini-project, regular specialised training and social media hashtags (e.g. #DHCRCPhD). | Students, research supervisors and industry mentors/advisors of mixed gender, race, age, background, stage of career and experience, etc. International and domestic students from both traditional academic and professional practice pathways. |

| Program feature | Description | Comments |
|--|---|---|
| Cross-institutional, cross-organisational and cross-jurisdictional | Participation from 16 universities and 50+ industry partners across Australia and the US. | Universities and industry partners contribute financially and in-kind to DHCRC. |
| Development fund | Funding pool to support career development opportunities and international collaborations for students, research supervisors and industry mentors/advisors. | Funds awarded annually as part of a merit-based application process. |
| Industry placement | Students embedded with industry participant(s) for up to half of candidature (in an intensive block or regularly throughout candidacy). | Practical, on-the-job skills training. Students work on research project and contribute to goals of industry participant. |
| Infrastructure | Access to relevant and secure platforms, databases, websites and tools. | Systems to store and organise information and data and support research progress. |
| Interdisciplinary team mini-project | Teamwork exercise and enrichment experience | Brings together students from health and data science disciplines, across the fields of science, social science, and arts and humanities to solve a real-world problem. The winning team will be supported to implement their solution. |
| Outreach | Digital Health Ambassador program | DHCRC students visit diverse communities, schools, fairs, Science Week, etc., to inspire and educate. |
| Personalised development plan | Formal learning plan developed via consultation between student, research supervisor, industry mentor/advisor and DHCRC Education Manager. | Progress tracked (gamified) and recorded online (micro-credentialed/ accredited) and forms part of mandatory reporting process. Any changes to be negotiated. |
| Recruitment (see www.digitalhealthcrc.com/hdr-program) | Collaborative effort between universities, industry participants and DHCRC involving project-specific selection criteria and an interview process. | DHCRC will use Commonwealth Milestones to guide student recruitment in terms of numbers, timing and dissemination across Flagship Programs. |
| Regular specialised training | Discipline-specific (health and/or data science) and generic training sessions tailored to student needs (informed by personalised development plan). | Face-to-face and online formats, and self-paced options mapped to the capability framework . Builds on university and industry offerings and includes induction/orientation for students, research supervisors and industry mentors/advisors, regular webinars, seminars, panel discussions, demonstrations, guest speakers and peer learning activities. Potential core topics include expectation management, ethics, OH&S, risk management, introduction to the Australian health system, clinical informatics 101, philosophy of science, scientific methods, the role of policy, etc.). |
| Resource hub | Crowdsourced by the DHCRC community for the DHCRC community. | Repository to include education material in multiple formats including models and exemplars (e.g. ethics applications). |

| Program feature | Description | Comments |
|--------------------|--|---|
| Scholarships | <ul style="list-style-type: none"> + Up to four years funding for PhD students and up to two years for research masters (full-time equivalent; and based on progress and performance). Part-time candidature will be considered on a case-by-case basis. + \$45,000+ package per annum* and ** <ul style="list-style-type: none"> • \$40,000 stipend (living costs)¹ • \$5,000 allowance (education-related expenses)² • Access to development fund on application.³ <p>Entry to DHCRC elite education program (includes personalised development plan, annual conference, annual five-day education retreat, interdisciplinary team mini-project, regular specialised training, and more.)</p> | <ul style="list-style-type: none"> + Stipends are offered at a flat rate (i.e. they will not be indexed annually against the Consumer Price Index). + Stipend and allowance paid to host university by DHCRC for distribution to student. + Allowance funds can be accumulated and rolled over at the end of each year. + The fourth year of PhD funding allows students to commit to complementary training and activities (including time spent off-project with industry) without risking thesis completion.⁴ <p>*Top-up available to holders of existing scholarships from other sources (typically \$5-12,500).</p> <p>** Final six months of PhD funding approved upon application. Conditional on performance in industry placement and thesis/research progress.</p> |
| Supervision | <p>Provided by primary university-based research supervisor and industry mentor/ advisor with support from the DHCRC Education Manager.</p> | <ul style="list-style-type: none"> + Research supervisor and industry mentor/advisor attendance at annual DHCRC conference and education retreat strongly encouraged (a small contribution to assist with travel expenses will be provided). + Research supervisors and industry mentors/advisors will not be paid an allowance but can apply to the development fund (which is a merit-based scheme that awards funding for career development and international collaboration purposes). |
| Tuition fee waiver | <p>Covered for length of candidature (up to four years for PhD, two years for masters)</p> | <p>Fee offset, tuition fee remission or sponsorship provided by host university.</p> |

¹ Compares to current 2019 Australian Government Research Training Program base stipend of \$27,596 pa (paid for a minimum of three years and a maximum of four at the host university's discretion).

² As part of the DHCRC Project Agreement, universities will agree to provide a research support fund for students (which is standard practice at most universities) in addition to the DHCRC allowance. Approved expenses from the DHCRC allowance may include:

- + return travel to DHCRC annual education retreat and conference (mandatory)
- + domestic and international conference registration fees and related costs on approval (e.g. accommodation)
- + domestic and international travel (including parking fees and transport costs or mileage reimbursement for trips to and from industry placements for return distances over 100km; where not covered as a DHCRC project cost)
- + fieldwork-related costs (where not covered as a DHCRC project cost)
- + equipment purchases (e.g. laptop or software)
- + proofreading and editing services
- + thesis production costs
- + specialised training (on approval)
- + student amenities fees
- + Open Access publishing fees
- + data access costs (where not covered as a DHCRC project cost)
- + access to external equipment/facilities (where not covered as a DHCRC project cost)
- + access to other testing/analysis services (where not covered as a DHCRC project cost).

³ Funding pool open to students, research supervisors and industry advisors/mentors who require additional funds beyond the \$5,000 pa student allowance for career development and international collaboration purposes. Applicants are expected to demonstrate attempts to secure funding from alternative sources prior to applying to DHCRC. Guidelines to be drafted.

⁴ Note: Some students (e.g. those coming from professional practice) may have additional degree entry requirements (e.g. coursework) to fulfil within this timeframe.