



**Galvanising our
Digital Health Sector**



digital health crc

Partners Span the Health and Wellness landscape




\$110M cash
\$120M in
Kind

Overall aims

- Integrate technology, government, service and academic partners around key flagship programs
- Integrate solutions directly into practice and support industry
- Work across jurisdictions and build national collaboration
- Generate Health IT workforce of the future
- Equip health professionals to operate in a digital health environment
- Integrate with My Health Record and other major initiatives
- Coordinate and leverage MRFF, AHTRCs etc

Progress to date



On-boarding partners and establishment

Partner workshops

Establishment of Research
Matrix and Flagship Programs

Project scoping

Project
commencement

Funding
released

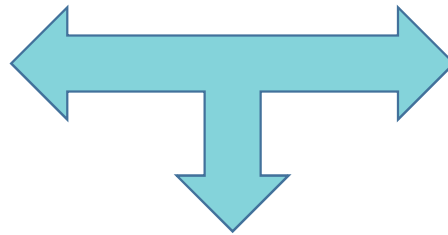
— July — Sept — Dec — Mar — June →



Research Drivers and linkage



Linking multiple data sets



Applying analytics and AI



**Prevention; new personalised models of care;
intelligent decision support; and business efficiency**

Horizontal – Settings of Care

- Home and workplace
- Primary and acute care
- Rural and remote care
- Residential aged care
- Rehabilitation following trauma or injury



Vertical Research Themes

- Change health trajectories through prevention and personalised models of care
- Understand clinical practice to support transparency and improve performance
- Improve value, quality and safety through intelligent decision support
- Information capture, storage and flow



Research Matrix (illustrative)

Building Capability and Capacity

Research Themes

Information capture storage and flow

Change health trajectories through prevention and personalised models

Improve value, quality and safety through intelligent decision support

Understand clinical practice to support transparency and improve performance

Home and Work

e.g. Health System Flagship 1

e.g. Standalone project

Acute and Primary

e.g. Health System Flagship 2

e.g. Standalone project

Residential Aged Care

e.g. Health System Flagship 3

Rural and Remote

e.g. Standalone project

e.g. Health System Flagship 4

Rehabilitation

e.g. Standalone project

e.g. Health System Flagship 5

e.g. Foundational program 1 (internally driven)

Delivering Value to the Health System

Setting of Care

	Flagship	Summary
Rural & Remote	Identification and personalised management of chronic disease	Use different data sets to identify underserved populations who have or are at risk of developing chronic disease. Provide personalised, digitally-supported behaviour change interventions and end-to-end management. Focus on rural and remote partners in WA and NT.
Rehab	Digitally coordinated 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.
Aged Care	Digitally coordinated aged care management	Use residential and clinical data to improve quality, reporting and business efficiency. Support shared care and improved health and wellness through resident and family portals. Provide real-time dashboards to support continuous quality improvement and decision support.
Primary & Acute	Identification and personalised management of chronic disease	Use different data sets to identify populations who have or are at risk of developing chronic disease. Provide personalised, digitally-supported behaviour change interventions. NB close alignment with Rural and Remote Flagship
	Transparency of data to improve clinical practice and referral	Use health care and administrative data to measure and understand clinical variation and practice; support reflection and personalised professional development; match consumers to appropriate care providers; and drive efficiency through payment and claims optimisation.
	Intelligent decision support	Use comprehensive data and information across care continuum to identify consumers at risk. Provide intelligence to consumers, clinicians and administrators to predict and prevent poor outcomes and low-value care. Improve quality use of medications. Support resource allocation and business efficiency.
Data	Enabling information discovery and application	Priority projects and initiatives to address legislative, governance and ethics approval inconsistencies and complexities; Establishment of a health data hub to enable real time data exchange; Establishment of a health hub to host secure, de-identified health and wellness data with supporting governance and controls.

P&A Flagship Program in Changing Health Trajectories

Using disruptive approaches and AI to identifying those at risk of 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?

Automating enrolment into supported and novel programs

Recruiting, on-boarding and referring

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

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



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?



Flagship Program in Assisted Aged Care

Capture comprehensive data and information across care continuum



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



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

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?



Use novel platforms to ensure continuity of care across care settings



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



P&A Flagship Program in Intelligent Decision Support

Capture comprehensive data and information across care continuum



Create new approaches to combining identified data while maintaining privacy



Develop predictive analytics to anticipate poor outcomes and resource usage

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?

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



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



Build tools to support planning and optimising resource allocation and usage



P&A Flagship Program in Understanding Clinical Practice

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

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?



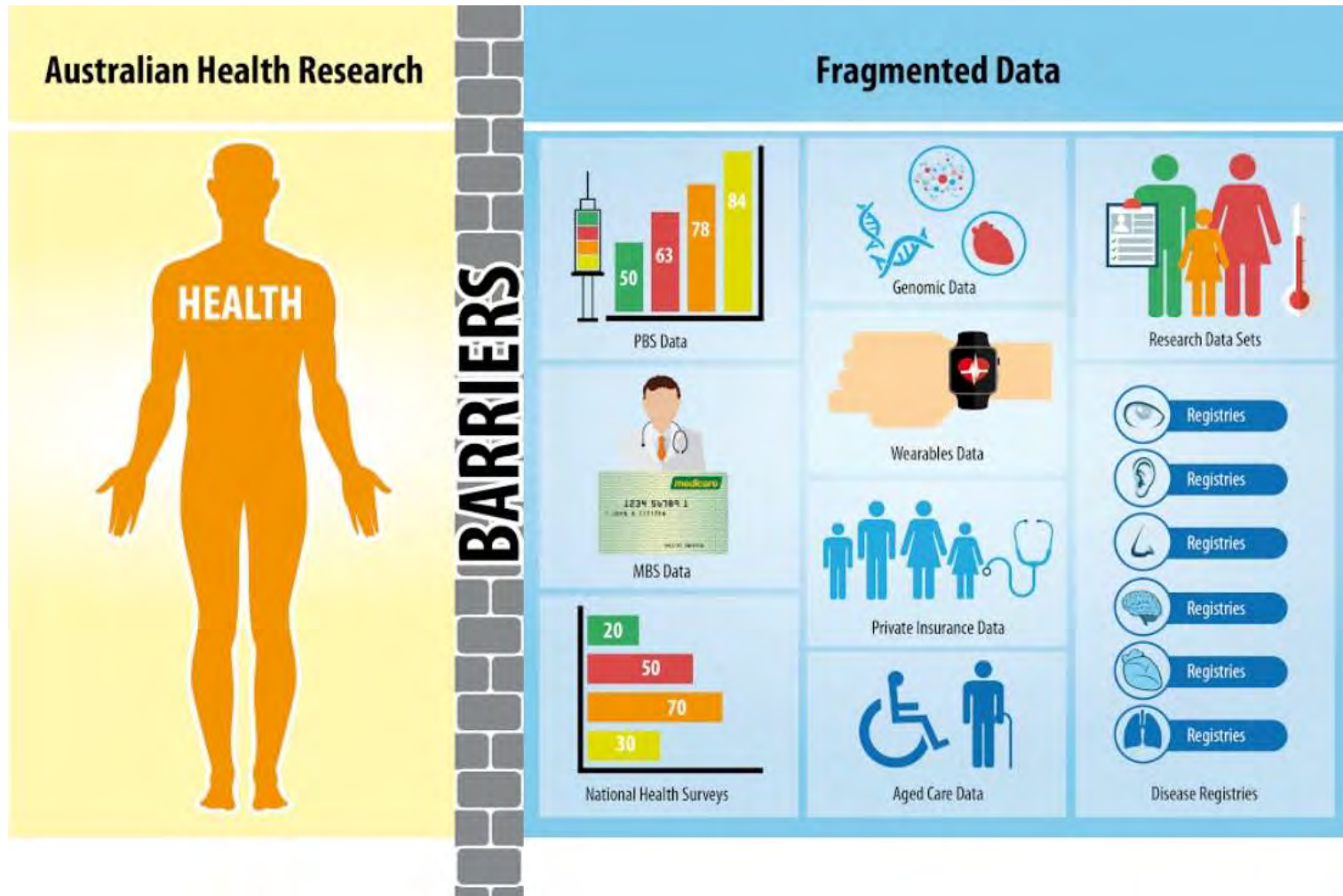
Build a platform for payers and providers to optimise claim management



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



Enabling information discovery and application



Develop National/International Innovation Hubs

Establishment of multidisciplinary Innovation hubs at sites across partnerships

- Collaboration between services, academia, government & industry
- Vehicle for industry access within a controlled environment
- Provide test-bed or sandpits for development of innovations
- Working to integrate DHCRC activity with AHTRC activity in development of data hubs
- Working with CSIRO





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**Digital Capacity of the Australian Health Workforce
A Five-Year Strategic Plan for Workforce Capacity Building
January 2019**

Project scopes under development

1. Evaluation of a technology platform to assist the provision and planning of aged care	-Sapphire-	Assisted aged care
2. Integrated health data for aged care	-Sapphire-	
3. Identify deteriorating residents	-Telstra Health-	
4. Management and monitoring of Pre-diabetic population	-Eastern Health, Alfred, DHHS-	Integrated care / Chronic disease management
5. On-boarding and management for chronic heart disease	-WACHS-	
6. Improving rural integrated care (on-boarding to program, cost benefit analysis)	-NSW Health-	
7. Rol of early identification and management of preventable disease	-SiSU-	
8. Predictive Modelling of Health Trajectories	-HMS-	
9. Compliance and behavioural modification post-MCI	-AMGEN-	
10. Navigator-driven identification and management of chronic disease	-Brigham and Women's-	Decision support
11. Improving medication safety in people with renal impairment	DHCRC-	
12. Use of primary care data to inform decision making in acute care	-Alcidion-	Transparency
13. Healthcare transparency platform and GP referral	-Lorica-	
14. Predictive Auditing of claims and medical records	-HMS-	
15. Understanding variation of care and link to professional development	-NSW Health/RACP/RACS-	Rehabilitation
16. Development of decision support tools to improve outcomes in accident compensation	-Lorica-	
17. Support R&R clients with major trauma	-TAC-	