ACT Government

Health

IMPLEMENTATION PLAN

Phase One, to December 2018

System-Wide Data Review

CONTENTS

BACKGROUND

The System-Wide Data Review positions ACT Health to improve and contemporise data management for the ACT Health Directorate, now and into the future.

The outcomes of the System-Wide Data Review (the Review) provide the foundations on which ACT Health's data reform programs will reside, enabling intelligence, innovation and leading analytics that will leverage the full capability of the complex datasets ACT Health holds. It supports ACT Health's vision of best practice performance and quality as well as continuous improvement of patient outcomes and a commitment to quality health services.

There are many key achievements that have already been delivered by the Review, such as meeting external reporting requirements, and commencing the build of a new data repository as the single source of truth for all data requirements. ACT Health will continue this significant program of work to realise and address the full findings of the Review.

The Review identified a program of activities grouped by nine informatics domains, representing an end-to-end solution that addressed the recommendations arising from the Review. The informatics domains were developed as part of the Review through a combination of research on best practice from leading state and territory health agencies and The Data Management Association International (DAMA) Data Management Body of Knowledge (DMBOK). They are:

DOMAIN	DESCRIPTION
D1 – Data management	The design and architecture of the systems and processes, which store and prepare ACT Health data for analysis and reporting.
D2 – Data governance	The structures and rules in place to provide direction, oversight and accountability to the use of ACT Health data and the reporting of information.
D3 – Data quality	The accuracy, reliability, validity and timeliness of ACT Health data.
D4 – Metadata management	Documenting ACT Health data so that there is a common understanding of how it is defined and how it should be interpreted.
D5 – Data security and privacy	The secure storage and access to sensitive information, as well as the measures put in place to ensure that the information is maintained in accordance with all privacy requirements.
D6 – Workforce	Organising teams working with data and enabling successful data management practices through training and communication.
D7 – Communication	The channels through which ACT Health staff can get information and assistance.
D8 – Change management	The rules, procedures and policies put in place to ensure that changes to ACT Health data or reporting of information are communicated, approved and implemented in a consistent and structured manner.
D9 – Information and insights	The wide range of reporting and analytics capabilities for ACT Health. It includes mandatory reporting to external bodies, as well as the delivery of insightful analytics and reporting capable of driving strategic and operational decision-making.

This Implementation Plan represents Phase One of an ongoing program of work over three years. The projects identified in this Plan have been informed by the program of activities identified through the Review, and are scheduled to commence in the period to December 2018. ACT Health will publish updates to this Plan every six months, which will include progress updates on projects underway or completed, and will identify projects scheduled to commence in the coming six-month period.

IMPLEMENTATION BY DOMAIN

D1 – DATA MANAGEMENT

Recommendation	Build a new data repository, which will collect, store, extract and transform quality data to deliver better insights to the community.
Key Findings	There are over 250 different systems in place across ACT Health that hold patient data. This is a complex environment to collect, store, transform and report consistent information on the 1.5 million episodes of care that ACT Health provides each year. Technologies and best practice data management activities are not embedded, limiting innovation and efficiencies.

Activities	D1.1 Data submission specifications
	
	    D1.1.1 Align data repository with local and national submission specifications
	
	D1.3 New data repository business case
	
	    D1.3.1 Commence development of a new data repository with well documented and validated processes
	
	    D1.3.2 Build the new data repository
	
	D1.5 Upgrade/reduce the number of data collection systems

Description	Continue to transition datasets from each source system to the new data repository. This will include the identification and documentation of data items required for local and national reporting, specifications, clinical/business processes, definitions and reporting requirements.

Outputs up to December 2018

For data elements feeding from systems that relate to the Emergency Department, Elective Surgery, Walk in Centres and Bed Occupancy:

- documented source system meta-data elements, the source system data entry requirements, business/clinical processes and business rules

- raw data extracted and imported into the data repository based on source system meta-data elements;

- extracted data transformed into usable data, based on business rules and requirements

- data loaded into the repository ready for use for reporting purposes

- defined outputs from the data repository, including mapping source system metadata to output metadata.

- detailed report specifications for external submissions, internal operational reports and data exposed to internal users;

- the translation of source system metadata to output metadata standards.

D2 – DATA GOVERNANCE

Recommendation	Embed new governance structures to delineate roles and responsibilities in relation to data across ACT Health, ensuring accountability and transparency is a priority. Support data activities through data policy and procedures.
Key Findings	Data governance structures, roles and responsibilities, policies, standards and processes are not consistently applied in ACT Health. There was not a single area responsible for the coordination of the 1200 requests for data each year. There are no documented policies and procedures to govern data and data activities across ACT Health, including data stewardship/custodianship, data quality, data integrity, data requests, data access, data release, data validation, data standards and metadata documentation.

Activities	D2.2 Governance committees identified
	
	    D2.2.1 Identify appropriate data governance committees
	
	    D2.2.2 Continuous oversight and review from governance committees
	
	D2.4 Root cause analysis
	
	    D2.4.1 Action findings and recommendations of the root cause analysis
	
	D2.5 Data management and governance framework
	
	    D2.5.1 Finalise and embed the Data Management and Governance Framework
	
	    D2.5.2 Finalise and embed data custodian ownership policies

Description	A new reference group consisting of clinicians, corporate and technical members will be established to have oversight of the SWDR implementation plan.

	The Data Management and Governance Framework articulates a range of indicators and measures for best practice data management such as clearly defined categories of data, ownership, decision rights and accountabilities and policies and processes.

Outputs up to December 2018
Appropriate data governance committees, including a tier 1 committee, established with defined terms of reference and accountabilities that will facilitate improved data management and quality from collection to reporting.
A finalised Data Management and Governance Framework that clearly articulates the roles and responsibilities of data management, which will be widely communicated and embedded into day to day operations at all levels, through an education program.
Finalised data custodian and stewardship policies to support the collection and management of data and that the data collection process meets business, operational or legislative requirements.

Activities	D2.6 Data policies and procedures
	D2.6.1 Develop and implement data policies and procedures
	D2.7 Data management plans for all service areas
	D2.7.1 Rollout data management plans for all business units
Description	Data policies and procedures to be developed and implemented to support data activities across ACT Health.

Outputs up to December 2018
Key data policies and procedures to support data quality, assurance, access control, data requests and data clearance developed and implemented utilizing the Communication Strategy and Stakeholder Engagement Plan to ensure that staff are kept up to date with any policy and procedure changes.
Data management education packages developed and implemented.

D3 – DATA QUALITY

Recommendation	Continually improve the accuracy of data through robust data quality assurance activities
Key Findings	Data definitions used in ACT Health were not always consistent across the organisation or with national standards
	The impact of poor or inaccurate data entry was not fully understood by certain users
	Data quality practices were not fully embedded across ACT Health, or the data lifecycle
Activities	D3.6 Clinical Coding Strategy
	D3.6.1 Embed the clinical coding strategy
Description	Strategy developed that will identify the high level requirements for clinical coding that will ensure compliance with standards, accuracy and consistency of information produced and ensures that coding supports the information requirements which provide a sound basis for the decision making processes of ACTH.

Outputs up to December 2018
Draft coding strategy will be finalised with a supporting implementation plan.

Activities	D3.8 Data quality framework and strategy
	D3.8.1 Development of a Data Quality Strategy
	D3.8.2 Finalise and embed the Data Quality Framework and Strategy
Description	The development of a data quality strategy and framework that addresses the challenges of data and information quality. The framework will provide a guide to ensure data is complete, standards based, consistent, validated and accurate.

Outputs up to December 2018
Draft Data Quality Framework and Strategy developed in line with ACT Government Office of the Chief Digital Officer.

D4 – METADATA MANAGEMENT

Recommendation	Improve the understanding of how data is defined and how it should be interpreted through the documentation of data definitions, data models and data flows.
Key Findings	Improve the understanding of how data is defined and how it should be interpreted through the documentation of data definitions, data models and data flows.

Activities	D4.3 Australian Institute of Health and Welfare Metadata registry
	
	  D4.3.1 Ongoing development and rollout of AIHW data definitions
	
	D4.4 Metadata model
	
	  D4.4.1 Develop a metadata model

Description	Complete work with the Australian Institute of Health and Welfare (AIHW) to adopt its data definitions and standards. Publish definitions online for ease of user accessibility. Establish and maintain a metadata model to support the consistent interpretation of data from source systems to usage.

Outputs up to December 2018

For data elements that relate to the Emergency Department, Elective Surgery, Walk in Centres and Bed Occupancy:

- work with the AIHW to adopt national data definitions and standards, revising as appropriate for local level data collections and reporting while ensuring they also meet national reporting requirements.
- definitions published online ensuring all staff have access.

Development of a metadata model that ensures stakeholders can interpret the meaning of the data from source systems to usage.

D5 – DATA SECURITY AND PRIVACY

Recommendation	Maintain security and privacy of the data held by ACT Health.
Key Findings	The application of policies and protocols were not well understood across ACT Health. Data repository access rights need to be reviewed so that access is only granted to data repository officers and not all data reporting officers.
Activities	D5.1 Security and access policies D5.1.1 Revised data access policies and protocols D5.1.2 Build the new data repository and embed data access protocols D5.1.3 Undertake rolling data access audits
Description	A data security management function will be established as part of the development of the data repository, to ensure auditable record and activity tracking mechanisms.

Outputs up to December 2018

For source systems that relate to the Emergency Department, Elective Surgery, Walk in Centres and Bed Occupancy we will embed data access protocols.

A data security management function (a part of the data repository) will log and register:

- history of database access, record search, record extraction, record entry, record completion and record change actions; and
- write access to report files will be restricted to the team (DSD Data Repository and Reporting Hub) that actively manages the reports (after the new data repository is built).

A rolling audit program will be undertaken which will include a review of unusual patterns of access particularly systematic record changes.

D6 – WORKFORCE

Recommendation	Continually improve internal workforce capabilities around data to build a strong data and analytics team, and train the health workforce to leverage the use of data for decision-making.
Key Findings	There was no formal training program for staff to understand why certain data is collected and the importance of accurate and complete data entry

Activities	D6.2 Performance, reporting and data management strategy
	
	    D6.2.1 Embed and implement the strategic plan
	
	D6.3 Staff performance plans
	
	    D6.3.1 Ensure that all staff continue to have performance plans in place
	
	D6.4 Performance, reporting and data training and orientation package
	
	    D6.4.1 Further develop the performance, reporting and data training package
	
	D6.6 ACT Health Data Management Training Package
	
	    D6.6.1 Develop ACT Health Data Management Training Package plan

Description	The Performance, Reporting and Data Management Strategy will be developed and embedded through appropriate training across ACT Health.

Outputs up to December 2018
Finalised and endorsed Performance, Reporting and Data Management Strategic plan which identifies the capabilities required for the PRD team to support the organisational requirements around data reporting and analytics.
Data management training needs analysis undertaken and documented. This will focus on each part of the data management process to ensure that the correct training is provided.

D7 – COMMUNICATION

Recommendation	Improve communication about data across ACT Health, mobilising a cultural shift around data management, with the intent of creating a new relationship between data, the community and stakeholders.
Key Findings	The benefits of having quality data were not well communicated to ACT Health staff Changes to data collections were not well communicated Access to data analysts for advice was not readily available, limiting understanding of data, reporting and performance matters
Activities	D7.1 Communication strategy D7.1.1 Develop a comprehensive Communications Strategy and Stakeholder Engagement Plan D7.1.2 Roll out the Communications Strategy and Stakeholder Engagement Plan D7.1.3 Develop and distribute regular communications
Description	To ensure accurate communications are delivered to the correct stakeholders, this strategy and plan will outline the objectives for data management, identify target audiences, outline the approaches for communicating with target audiences and identify the tactical tools of communication to promote the work of the Performance, Reporting and Data branch.

Outputs up to December 2018
Finalised Communications Strategy and Stakeholder Engagement Plan that promotes a structured and agreed approach to communicate to all stakeholders.

Activities	D7.3 Performance, Reporting and Data SharePoint site and intranet portal
	D7.3.1 Designed a SharePoint site and intranet portal
	D7.3.2 Complete development of online portals – including SharePoint/intranet site
Description	A SharePoint workspace for the Performance, Reporting and Data team will enable the management of key documents and reports in a central space and facilitate the development of online portals to promote a self service reporting methodology and real time operational reporting.

Outputs up to December 2018
Identification of operational reporting suitable for delivery via online portals.
Structure for a SharePoint workspace designed.

D8 – CHANGE MANAGEMENT

Recommendation	Embed change management practices as business needs evolve and ensure these enhancements are appropriately governed
Key Findings	There was no formal change control process in place to manage new data activities, for example new data items or reports

Activities	D8.1 Change management process
	
	    D8.1.1 Continue to socialise the change control policies and procedures
	
	D8.2 Change Control Board
	
	    D8.2.1 Continue to maintain ongoing oversight of change control requests via the Change Control Board

Description	Finalising and socialising the policies developed across ACT Health through the intranet site and other media including the Change Request Policy, Change Request Procedure and Change Request Form. Further development activities include developing a Change Request Register.

Outputs up to December 2018

Finalised and communicated policies and procedures in relation to Change requests that flow from the data governance and data quality frameworks.

D9 – INFORMATION AND INSIGHTS

Recommendation	Be transparent within and outside ACT Health, by meeting regulatory requirements as well as deliver insights and intelligence about the healthcare services delivered throughout ACT
Key Findings	The majority of clinical data provided for operational purposes was not real-time (up to six to eight weeks old) and was not influencing patient outcomes or achieving efficiencies
	There was not a consolidated reporting program in place to meet external reporting requirements
	Although consumers have access to a large number of public reports, these are not readily accessible in a timely manner, do not directly inform consumer health care choices, or assist with understanding performance, quality and safety of the care provided by ACT Health
Activities	D9.4 Identify options for improved consumer reporting
Description	Identify options and provide recommendations for consumer data availability and delivery

Outputs up to December 2018
Draft requirements developed by Health Care Consumers Association (HCCA)
Requirements reviewed to ensure alignment with the ACT Health Quality Strategy 2018-2028
Preferred consumer reporting requirements determined in consultation with HCCA.
Community consultation undertaken regarding draft consumer reporting requirements.
Reports for consumers established online through data.act.gov.au

Activities	D9.6 Design Activity Based Funding Framework
	D9.6.1 Begin reviewing and evolving the existing Activity Based Funding Framework
	D9.6.2 Design and embed the activity based funding framework
Description	The Activity Based Funding Framework will identify the categories, classifications, issues and priority areas such that ACT Health can move towards Activity Based Funding.

Outputs up to December 2018
Endorsed Activity Based Funding Framework, with supporting implementation plan for Activity Based Management within the Health Directorate, Canberra Hospital and Health Services and other service providers.
2018-19 Calvary Performance Plan developed on an ABF model, in line with the Calvary Network Agreement requirements.
Education programs on Activity Based Funding developed.
Development of internal operational reports that support the management of activity and resource usage.

Activities	D9.8 Measurement Framework to support ACT Health Quality Strategy
	D9.8.1 Commenced drafting the Measurement Framework to support ACT Health Quality Strategy
Description	Initial work has progressed to draft the Measurement Framework, which specifically relates to defining how quality is measured. Once finalised, the Framework will be rolled out to all clinical units to ensure they understand its application to their day-to-day work.

Outputs up to December 2018
Development of a draft high-level Measurement Framework to support and operationalise the ACT Health Quality Strategy 2018-2028, which will provide a structure for what, why, how and when quality will be measured across ACT Health.
Draft quality indicators specifications which align with the approach taken to specify other ACT Health performance indicators and metrics.
Measurement Framework endorsed by the appropriate governance committee.
Review, endorse, and publish quality indicators. The quality indicators will undertake a review period and be endorsed by the appropriate governance committee. The indicators will then be published for access by staff and consumers.
Roll out the Measurement Framework and quality indicators to all clinical units, including an education process.

Activities	D9.10 Design New Performance Reports
Description	Design new operational performance reports for Activity Based Funding to inform clinical operations, costing and workforce
Outcomes	Development of timely and accessible reports, that support decision making.

Outputs up to December 2018
Through key stakeholder engagement, identification of key accountability indicators and operational reports that will support operational decision making.
CHHS internal accountability scorecards developed; focusing on demand measures, patient outcomes, internal processes, financial accountabilities and human resource accountabilities.
Supporting operational reports for the Divisions of CHHS determined through consultation with key stakeholders.
Quarterly performance report for quarters 1 and 2, 2018 produced from the data repository.

Activities	D9.11 Design Analytics Strategy and Analytics Framework
	D9.11.1 Commence developing the Analytics Framework
	D9.11.2 Design and embed the Analytics Strategy including an Analytics Framework
	D9.12 Australian Institute of Health and Welfare data linkage
	D9.12.1 Progress discussions with AIHW to collaborate with national data linkage processes
	D9.12.2 Establish the linkage of ACT Health data with national processes
Description	The overarching design and development of Health Directorate's data analytics capabilities and an operating model describing how they are to be arranged and deployed.

Outputs up to December 2018
A data analytics capability gap analysis undertaken to inform development of the Analytics Framework.
Development of Analytics Framework commenced.
Initial discussion undertaken with AIHW to determine the impact of data linkage processes for ACT Health.