ACT Government
Health

ROOT CAUSE ANALYSIS

Leading Data Reform: The Way Forward – Outcomes of the ACT Health System-Wide Data Review.

ROOT CAUSE ANALYSIS

The findings and recommendations of the Root Cause Analysis were spread across four key themes: (1) Strategy, (2) Data and ICT Governance, (3) Communication and Collaboration, and (4) Change Management.

Strategy

Strategy - Strategy and data activities are not aligned across ACT Health	
Findings	There is a lack of data strategy integration across ACT Health
	– Although data activities from different areas of ACT Health refer to organisational level objectives, there is limited evidence that local strategies are aligned with the Directorate's evolving data strategy
	– Discussions of data issues focused on individual accountability without also discussing the collective responsibility of the organisation
	The existing Digital Health Strategy has not been aligned to data requirements
	– The digital health strategy, data strategy, and work force strategy are all in development
	– Historically ICT health decisions reflected the 'best of breed' strategy to meet varying user needs, having an adverse impact on the ability to achieve system level needs of consistency and integration
	– There are over 250 systems in use across ACT Health to collect data, with different data definitions and varying levels of connectivity
	– Users reported a lack of an ongoing maintenance plan (especially for regular updates to applications to support mandatory reporting), in part due to budgetary constraints, resulting in key data systems being outdated
	Performance, Reporting and Data Division staff lack strategic clarity
	– There were pockets of staff that reported not having a clear understanding of how data activities are prioritised and actioned
	– Current data activities have prioritised mandatory reporting requirements, which, while necessary, has resulted in not being ready for next generations technologies
	Workforce
	– The data system training was not perceived as being sufficiently customised to address the differing needs of user groups, or to highlight the importance of accurate data
	– Insufficient training time is allocated for ICT systems and therefore quality data entry is not promoted or seen as a priority
	– It was reported that internal transfers to new roles within ACT Health were not systematically supported by training to meet role requirements
	– At times the instructions from virtual training and on-the-job training differed, resulting in uncertainty of the requirements and inconsistency in system use
	– The shift to delivering training in a virtual environment was perceived to introduce a gap as it was not clear who to contact for queries
Recommendations	1. **Align evolving Data, Digital Health and Workforce strategies**
	❖ A coordinated approach to align the workforce and technologies through change management and improved communications
	❖ Align strategies with the roadmap for change
	2. **Invest in a single point of access to linked real time data**
	❖ Simplify access to data and share growing data collection with users across ACT Health to support quality insights
	❖ Provide an easy to use, single point of truth across all current and future systems
	❖ Promote real time data entry and analysis while maintaining security and privacy standards

3. Improve ICT system architecture to better support clinical workflows and information provision

❖ For the priority data areas, use information from the workflow mapping to identify specific points where data entry does not match workflow

❖ Address the priority areas where system design and workflow are not aligned

4. Substantially reduce the number of systems collecting data

❖ Identify opportunities for consolidation where multiple systems are performing the same or similar functions

❖ Consider the systems in use in other countries or jurisdictions

5. Implementation of the Performance, Reporting and Data Management Strategy when prioritising work and resources

❖ Consult with staff for the development of the Data Governance and Assurance Framework

❖ Require that decisions be made in reference to organisational data use priorities

6. Work with users of data to take advantage of the broad range of data available

Work with users of data across ACT Health and external stakeholders to take advantage of the broad range of data collected. This may include developing systems to:

❖ Make use of automation and data analytics to provide real time insights and reduce duplication of data entry and manual handling

❖ Measure and compare patient outcomes and the resources used to achieve them

❖ Capturing the life course of the individual to identify service provision and policy requirements to improve the health of the individual and the community

❖ Prepare data to leverage future technologies such as artificial intelligence

❖ Increase sharing of information with providers in other jurisdictions

7. Incorporate workforce strategy and roles into training design

❖ Review the current training program to determine if any user training needs are unmet

❖ Instigate a process for ongoing feedback and regular contact opportunities with data specialists

❖ Determine what follow-up or ongoing training programs are needed to keep staff knowledge current and provide opportunities for further development

❖ Educate staff on the importance of organisational consistency and have a mechanism to promote ongoing behaviour

❖ Promote uptake of available training by understanding and addressing potential barriers such as required time commitment, perceived benefit of training, and delivery methods

Impact

- Alignment across people, technology and systems
- Increase timely access to data to support decision making
- Increase familiarity with the available data
- Increase simplicity of system design and increase ease of real-time data entry
- Decrease the number of programs that require training, support, integration and maintenance
- Increase commitment to achieving strategic goals
- Advance the way data is used to inform service provision to the Canberra region
- Build support for quality data through demonstrating what can be achieved
- Build support and capability for staff to complete the data elements of their job to the best of their ability

Data and ICT Governance

Data and ICT governance – The Data Governance Framework is not consistently or fully implemented	
Findings	Organisational
	– There is not a single centralised hub of data stewardship
	– Governance structures to manage ACT Health data are not clearly defined or communicated, including parties responsible for making decisions that impact data capture
	– The extent to which people are adhering to existing data security and privacy polices has not been measured
	Policies and standards
	– Data definitions are not consistent across the organisation or consistent with national standards
	– The data limitations were not documented or known by all users resulting in errors or inconsistency in interpretation, as well as difficulties identifying the most appropriate inputs and methods of analysis
	Processes
	– The process for data capture does not follow the flow of patient care or staff workflow, resulting in workarounds such as data capture recorded on paper and not always in official systems
	– The complete functionality of key data systems is not well documented and therefore not well understood
	– Processes with a high reliance on paper forms, manual entry and duplication of entry continue for some systems
	Compliance and measurement
	– The inputs and processes used to generate reports are complex and only understood by a limited number of users
	– Due to the number of systems in use there have been instances of inconsistencies between reported figures and locally held information
	– Confidence in data has been diminished as it does not consistently provide a real-time snapshot
	– There is a perception that the checks and balances for data accuracy are not validated at the source of data entry and do not support accurate or contextual reporting
	– There appears to be variable effectiveness in communication between data entry and reporting staff
Recommendations	**8. Complete implementation of the Data Management and Governance Framework for ICT and data including application of data definitions consistent with national standards**
	❖ Agree and communicate ownership of data governance for ACT Health
	❖ Develop and implement enterprise level data policies and procedures
	❖ Identify the critical performance metrics that add value to ACT Health
	❖ Use controls and standards to assess and monitor data quality to increase trust in the data
	❖ Support staff to contribute to the quality use of data within the scope of their responsibilities
	❖ Use the data strategy to agree the data areas for quality to be prioritised
	❖ Acknowledge that data are predominantly collected in pre-configured systems and therefore there are limitations of data collection that are unavoidable, such as only being able to record one address per patient
	9. Conduct an assessment of data quality
	❖ Apply data quality dimensions to measure and assess the data quality against defined standards (for example, the Data Management Association's quality dimension)
	❖ Check data for completeness, consistency, uniqueness, validity and data accuracy
	❖ Understand the strengths and current capacity of data governance systems and identify priority areas for improvement

Data and ICT governance – The Data Governance Framework is not consistently or fully implemented	
Recommendations	**10. Perform an assessment of the ACT Government Protective Security Policy Framework to ensure compliance**
	❖ Assess compliance with security and privacy legislation and frameworks
	❖ Perform a readiness assessment of ACT Health's ability to conform with anticipated future data security and privacy requirements
Impact	• Confidence in relying on data for decision making through improvements in accuracy, consistency and interpretation
	• Improve trust in the data systems
	• Provide a baseline measurement for future comparison
	• Alignment with the Data Management Association (DAMA) framework
	• Increased confidence in data security for the entire data life-cycle
	• Certainty that all possible actions are taken to assure patient privacy

Communication and Collaboration

Communication and collaboration – There is a need to improve communication channels across the ACT Health	
Findings	Communication
	– The level of communication across the directorate requires improvement to support collaboration and ensure understanding of data activities
	– The roles and responsibilities of people involved in data activities were not well understood across the organisation
	– Many data entry officers were unclear about the importance of quality data entry as they were unaware of the full use of the data and how it contributes to achieving organisational goals
	Collaboration
	– There was a general perception that decisions regarding implementing and modifying data systems were made without comprehensive consultation or communication
	– There is a strong sense of service identity, linked to the location, not to ACT Health
	Sharing knowledge
	– The transfer of corporate knowledge has a high dependency on certain individuals without a structure for knowledge transfer
	– Access to expertise in data when requesting extractions of data for reports is not readily available in many areas
	– Territory-wide professional networks and forums appear to have broken down
	– Feedback on the use of data systems is not regularly provided
Recommendations	**11. Implement a communication plan for internal and external stakeholders**
	❖ Demonstrate to staff how data are used at ACT Health, and their responsibilities in ensuring its completeness and accuracy
	❖ Identify data specialists across different systems, assign them as the key contact and distribute information detailing who to contact for what type of query and how
	❖ Establish expectations about updates to data and the balance between reporting consistent figures, and figures that capture the most up-to-date data
	❖ Establish formal channels of regular communication
	12. Communicate the confidence levels and limitations of data
	❖ Acknowledge that data can be biased and needs strong governance
	❖ Provide people with the information they need to make informed decisions when interpreting and representing data
Impact	• Build awareness of the important role of data in organisational management and clinical service provision
	• Increase connectivity across the organisation to increase understanding and support

Communication and collaboration – There is a need to improve communication channels across the ACT Health	
	• Foster a professional collaborative professional network to support jurisdiction-wide initiatives
	• Increase understanding of accurate data interpretation and representation

Change Management

Change management – Existing change management processes have not yet achieved their full impact	
Findings	Change management
	Acknowledging change management is an ongoing process and recommendations continue to be implemented:
	– Consultation with staff identified a lack of detailed understanding of some of the immediate actions undertaken as part of the System-Wide Data Review
	– Although staff were able to articulate the future solution and what it would achieve, less detail was available on the steps that would need to be taken to get there and the interim measures in place to address existing gaps
	– Although progress of actions against the external review recommendations is being tracked, the impact of the changes made have not yet been measured
	– A coordinated enterprise change management program does not exist
Recommendations	**13. Use a standard structure to support change management**
	For example, using a methodology to:
	❖ Build awareness of the problem and the impact on ACT Health
	❖ Build desire and agreement for change by communicating the individual and organisational benefits
	❖ Invest in knowledge to successfully deliver the change such as training staff and establishing change agents
	❖ Allocate resources and build process to implement the change
	❖ Implement the change
	❖ Measure the benefits achieved through change and share the information with staff
	❖ Sustain the change
	14. Measure and share the impacts of changes with staff across ACT Health
	❖ Demonstrate to staff across ACT Health that issues of data quality are being addressed using a systematic and measured structure
	❖ Understanding change is a gradual and continuous process and that continued effort generates continued reward
Impact	• Change will be effectively implemented
	• Build trust with ACT Health staff that people's concerns have been listened to and are being addressed
	• Grow confidence in the quality of data