

Data management

Department of Health Policy

QH-POL-279:2014

1. Statement

The Department of Health values data as a core strategic asset and shall ensure the consistent and effective management of data throughout the data lifecycle, to support the delivery of services and organisational priorities.

2. Purpose

The intent of this policy is to:

- support the quality delivery of services through the collection and management of data that is fit-for-purpose and enables integration, use, re-use, and preservation
- recognise the value of data by making it more accessible, available, discoverable, trusted, and secure
- improve the integrity, quality, and consistency of data management, including through the use of standards and supporting guidelines
- maximise the value of data within the management and delivery of health care
- align data management with relevant legislation, regulations, and standards
- support improved business insight and information reporting.

3. Scope

This policy applies to all employees, volunteers, contractors, consultants, and managed service providers working for the Department of Health.

The scope of the policy includes data (clinical and non-clinical), in all mediums including electronic or non-electronic (physical and hybrid) created, collected, managed, stored, disseminated, and disposed of.

Note: The key functions defined in the Overview section of this policy, have different applicability thresholds, which are based on the specific instrument that prescribes the requirements; (that is, the statutory obligation, policy, guidance, etc.). Where there are legislative and regulatory obligations, the term 'must' will apply. Where there are references to best practice, the term 'should' will apply.

This policy may be adopted by Hospital and Health Services (HHSs) and re-branded as an HHS policy or used as a basis for a local HHS specific policy.

4. Principles

- **Accessible** – Data can be readily identified, located, and accessed, by those with a legitimate need to know, when required.
- **Privacy, confidentiality, and security** – Privacy, confidentiality, and security requirements will be adhered to for data that is collected, used, and disclosed, transmitted, stored, and appropriately disposed of.
- **Managed** – Leadership and accountability regarding data management is defined, communicated, acknowledged and compliance is monitored, measured, and reported, through governance.
- **Standardised** – The approach to data management is standardised and consistent.
- **Quality and integrity** – To preserve data quality and integrity, data collection and associated practices will be managed in an ethical, consistent, and accountable manner, to ensure data is accurate, valid, reliable, timely, relevant, complete, and unique, and is used for the appropriate purpose. Integrity is maintained when undertaking integration, migration, conversion and/or transformation.
- **Valued** – Data is recognised as a core strategic asset.
- **Transparent** – Data that is not protected by legislative and regulatory requirements is proactively disclosed and accessible. The Principle extends to the exchange and sharing of data.

5. Overview

Data management is concerned with valuing and managing data as a strategic asset of government with the same rigour as that applied to other strategic assets. It includes the development, implementation, and management of policies, programs, practices, and processes that deliver, control, and enhance the value of data throughout its lifecycle.¹ The following key functions form the foundations of good data management practice and must be considered throughout the data lifecycle:²

5.1. Data modelling and design

- 5.1.1. Data modelling and design is a method used to define and analyse the data requirements needed to support processes and service delivery.

¹ Adapted from the DAMA Data management body of knowledge, Second edition, 2017, rev. Henderson, D, Early, S and L Sebastian-Coleman. Technics Publications LLS, Basking Ridge, NJ, pg. 17

² Data management functions listed are adapted from the Queensland Government Enterprise Architecture, [Information management policy framework](#) domain names.

5.2. Data integration and interoperability

5.2.1. Data interoperability is the exchange of information that preserves the meaning and relationship of the data exchanged. Data integration is the process of combining data residing at different sources and providing the user with a unified view.

5.3. Data quality and integrity

5.3.1. Data quality and integrity is related to ensuring methodical data collection and practices to enhance quality, and integrity with respect to accuracy and completeness. Data quality for the Department of Health means the data is 'fit for purpose' by demonstrating its accuracy, validity, reliability, timeliness, relevancy, completeness, and uniqueness.³

5.4. Data capture

5.4.1. Data capture is the collection, possible manipulation and/or interpretation and storage of data. Data capture may be automated. Effective data capture can improve quality, coverage, and reliability of data.

5.5. Data cleansing

5.5.1. Data cleansing is the detecting and correcting or removing of corrupt or inaccurate data.

5.6. Data de-duplication

5.6.1. Data de-duplication is the elimination of redundant data to reduce required storage capacity and establish a source of truth.

5.7. Data migration and transformation

5.7.1. Data migration is transferring data between either storage types, formats, or computer systems. Data transformation converts data from a source data format into destination data.

5.8. Data analytics and reporting

5.8.1. Data analytics is a discipline focused on examining data from different perspectives to extract insights about the information it contains. Data is collated, prepared, and analysed from different sources, sizes and

³ Adapted from the Data Quality Dimensions in the eHealth Queensland, [Queensland Health Data Quality Framework](#), pg. 10.

formats using various processes, tools, and techniques. Reporting is the process of collecting, organising, and transforming data in order to derive and present information to users in a digestible form.

5.9. Open data

5.9.1. Open data is data that anyone can access, use, or share.

5.10. Data profiling

5.10.1. Data profiling is the process of examining data available from an existing information source (e.g., a database or a file) and collecting statistics or informative summaries about that data.

5.11. Data privacy, confidentiality, and security

5.11.1. Data privacy, confidentiality, and security is the establishment and execution of governance mechanisms to ensure data is accessed appropriately and is not breached.

6. Legislation

- [Electronic Transactions \(Queensland\) Act 2001](#)
- [Evidence Act 1977 \(Qld\)](#)
- [Hospital and Health Boards Act 2011 \(Qld\)](#)
- [Human Rights Act 2019 \(Qld\)](#)
- [Information Privacy Act 2009 \(Qld\)](#)
- [My Health Records Act 2012 \(Cwth\)](#)
- [My Health Records Rule 2016 \(Cwth\)](#)
- [Public Health Act 2005 \(Qld\)](#)
- [Public Records Act 2002 \(Qld\)](#)
- [Public Sector Act 2022 \(Qld\)](#)
- [Right to Information Act 2009 \(Qld\)](#)

7. Supporting documents

Queensland Government:

- [General Retention and Disposal Schedule \(GRDS\)](#)

Queensland Government Enterprise Architecture (QGEA):

- [Information access and use policy \(IS33\)](#)

- [Information asset custodianship policy \(IS44\)](#)
- [Information management policy framework](#)
- [Information security assurance and classification guideline](#)
- [Information security classification framework \(QGISCF\)](#)
- [Information security policy \(IS18:2018\)](#)
- [Records governance policy](#)
- [Records governance policy implementation guide](#)

Queensland Health:

- [Audit and recordkeeping standard \(QH-IMP-484-9:2021\)](#)
- [Data and application custodianship roles and responsibilities](#)
- [Data classification tool](#)
- [Definitions for identifiable, de-identified, non-identified, non-identifiable, reidentified and anonymised data](#)
- [De-identification and anonymisation of data guideline](#)
- [Information access, use and disclosure standard \(QH-IMP-484-2:2021\)](#)
- [Information Management Framework](#)
- [Information security classification and handling guideline \(QH-GDL-468-1:2022\)](#)
- [Information security classification and handling standard \(QH-IMP-468-3:2022\)](#)
- [Information security policy \(QH-POL-468:2019\)](#)
- [Information sharing guidance](#)
- [List of approved Data and Application Custodians for Applications](#)
- [List of approved Data Custodians for Data collections](#)
- [Management and access to documents and records factsheet](#)
- [Queensland Health Clinical intelligence and Business Intelligence Mandated Principles](#)
- [Queensland Health Data and application custodianship policy \(QH-POL-469:2019\)](#)
- [Queensland Health Data and application custodianship standard \(QH-IMP-469-3:2019\)](#)
- [Queensland Health Data Quality Framework](#)
- [Queensland Health Data Quality Self-Assessment Tool](#)
- [Queensland Health Enterprise Architecture \(QHEA\) Information Architecture Guideline](#)
- [QHEA Information asset standard \(EAF-STD:2021\)](#)

- [Queensland Health Information Management Strategy](#)
- [Queensland Health Information Management Strategy Roadmap](#)
- [Queensland Health Interoperability – Integration Platform Strategy](#)
- [Queensland Health Interoperability - Interoperability Foundations](#)
- [Queensland Health Interoperability – Mandated Principles](#)
- [Queensland Health Interoperability Vision](#)
- [Queensland Health Open Data Strategy 2023-2026](#)

Department of Health:

- [Clinical data standardisation standard \(QH-IMP-279-1:2014\)](#)
- [Clinical records management policy \(QH-POL-280:2014\)](#)
- [Corporate records management policy \(QH-POL-467:2019\)](#)
- [Data management standard \(QH-IMP-279-4:2023\)](#)
- [Data modelling guide – Overview and best practices](#)
- [Data supply requirements documentation standard \(QH-IMP-469-2:2019\)](#)
- [Disposal of corporate records guideline \(QH-GDL-476-2:2020\)](#)
- [Documentation of date and time entry in the paper-based health record standard \(QH-IMP-279-2:2013\)](#)
- [Enterprise Architecture policy \(QH-POL-402:2014\)](#)
- [Health Sector \(Clinical Records\) Retention and Disposal Schedule](#)
- [Information security management system \(ISMS\) standard \(QH-IMP-468-1:2022\)](#)
- [Privacy breach management](#)
- [Privacy Impact Assessment \(PIA\)](#)
- [Queensland Data Linkage Framework](#)
- [Recording My Health Record information standard \(QH-IMP-396-2:2013\)](#)
- [Research management policy \(QH-POL-013:2022\)](#)
- [Research management standard \(QH-IMP-013-1:2022\)](#)
- [Retention and disposal of clinical records standard \(QH-IMP-280-1:2014\)](#)
- [Statistical and corporate data standardisation standard \(QH-IMP-469-1:2019\)](#)

8. Definitions

Term	Definition	Source
Application	A software system deployed by the agency which has part of an agency's business processes embedded with it.	Data and application custodianship roles and responsibilities
Clinical data	A collection of data and information gathered or generated to record the clinical care and health status of an individual or group. Also referred to as a Health Record, Medical Record, Healthcare Record.	Department of Health Digital Policy Glossary
Data	<p>The representation of facts, concepts or instructions in a formalised (consistent and agreed) manner suitable for communication, interpretation or processing by human or automatic means. Typically comprised of numbers, words or images.</p> <p>The format and presentation of data may vary with the context in which it is used.</p> <p>Data is not information until it is utilised in a particular context for a particular purpose.</p>	Data and application custodianship roles and responsibilities
Data collection	<p>The systematic gathering of data designed to address a specific set of business needs which may be from various sources, including manual entry into application(s), questionnaire(s), interview(s), observation, existing record(s) and electronic device(s).</p> <p>A data collection is a type of data set for a specific named purpose.</p> <p>Supports clinical care, funding, management, planning, monitoring, improvement, research and evaluation of health and health services.</p>	Data and application custodianship roles and responsibilities
Data governance	Implementation of a set of policies, processes, structures, roles and responsibilities to ensure that an agency's data is managed effectively and that it can meet its current and future business requirements.	NSW Government Data Glossary
Data lifecycle	A data lifecycle illustrates the stages of data management required over time,	NSW Government Data Glossary

Term	Definition	Source
	from the time of planning and creation to the time that data is either archived or destroyed.	
Data management	<p>Data management is concerned with valuing and managing data as a strategic asset of government with the same rigour as that applied to other strategic assets.</p> <p>Data management includes:</p> <ul style="list-style-type: none"> • data modelling • data interoperability • redress mechanisms • data quality and integrity • data cleansing • data de-duplication • data capture • data migration and transformation • data mining • data warehousing • open data and • data profiling. 	Queensland Government Enterprise Architecture (QGEA), <i>Information management policy framework</i> , Data management domain definition IM-6, 2017
Data set	<p>A set of data items that is collected for a specific purpose.</p> <p>A data set may comprise a smaller grouping (or subset) of data which, though limited by some constraint or feature type, is located physically within a larger data set.</p>	Data and application custodianship roles and responsibilities
Fit for purpose	The data accuracy, validity, reliability, timeliness, relevancy, completeness, and uniqueness.	Department of Health <i>Data Quality Framework</i>
Governance	The structured decision-making exercised by accountable and responsible persons to provide strategic direction and ensure operational, or program objectives are achieved; manage risks and drive organisational improvement in an ethical, accountable, controlled, defensible and transparent manner.	Queensland Government For government Glossary
Metadata	Data about a particular information asset. Specifically, the contextual information about an information asset upon which the asset was	Queensland Government For government Glossary

Term	Definition	Source
	established and will be managed on an ongoing basis.	
Standard	Sets out the technical or other specifications necessary to ensure that a method or material will consistently do the job it is intended to do.	Queensland Government For government Glossary
Strategic Asset	An asset, or group of assets, that needs to be retained if the organisation is to maintain capacity to achieve or promote any outcomes that are important to the current or future wellbeing of the organisation. Data is a valuable corporate asset. Data needs to be managed, maintained and exploited in a manner similar to that of other more traditional assets of government (e.g. information systems, buildings, plant and equipment)	Queensland Government Enterprise Architecture (QGEA), <i>Information Principles</i> , 2009

Version control

Version	Date	Comments
3.0	09 May 2014	Approved.
3.1	12 June 2015	Transferred information into new template and reviewed by Clinical Information Management.
4.0	18 December 2020	Transferred information into new template, content reviewed and updated.
4.1	8 August 2022	Content reviewed and updated.
5.0	21 February 2023	Formal review and update. Approved by the Information Management Strategic Governance Committee. Approved to publish by the Deputy Director-General eHealth Queensland.
5.1	27 September 2023	Update the Public Sector Act 2022 in the Legislation section and links to resources in the Supporting documents section for currency.