

ORGANISATIONAL OVERVIEW

Introduction:

Northern Health is a vibrant, fast-paced workplace located in the rapidly growing northern suburbs. This is driving us to think innovatively about the needs of the population and what the health system of the future might need to look like to meet those needs. We take care of our community by providing a wide range of health services at multiple locations including:

- Northern Hospital Epping
- Broadmeadows Hospital
- Craigieburn Community Hospital
- Bundoora Centre
- Merri-bek Community Team
- Broadmeadows Community Care Unit
- Broadmeadows Prevention and Recovery Care
- Hotham Street Community Mental Health Clinic
- Northern Prevention and Recovery Care
- Northern Community Care Unit
- Noogal Clinic
- Kilmore District Health
- Women's Health Hub and,
- Mernda Community Hospital

We also collaborate with our partners to help expand the range of health care services offered to our culturally rich and diverse community.

As an organisation, we are shifting our focus from illness to putting a spotlight on supporting our community in 'staying well'. In order to achieve this, we are developing strong relationships with other health service providers and the community across the region, to help us think differently about the future.

Northern Health provides a dynamic working environment, with a strong culture of teamwork, safety and respect. Northern Health is proud to be an inclusive employer and aims to ensure our workforce is representative of the community.

Our Vision:

Creating a healthier future by working together, innovating and delivering great care.

Our Values:

- Safe – We provide safe, trusted care for our patients. We are inclusive, culturally safe, celebrating the diversity of our staff and community.
- Kind – We treat everyone with kindness, respect and empathy. We provide patient-centred and compassionate care.
- Together – We work together with our staff, patients, consumers and health system partners.

Our Priorities:

Northern Health has determined six strategic directions. The directions are focused on addressing priorities for safety, sustainability, growth and innovation. They reflect our best assessment of opportunities and challenges in our current and future environment.

- Collaborate to deliver safe, efficient, effective and sustainable care in all our services
- Demonstrate our commitment to the wellbeing of our valued workforce
- Renew and strengthen our infrastructure, systems, tools and processes for financial sustainability and growth
- Innovate to shape the future of health care in Victoria
- Partner to keep people well and deliver the best possible care locally
- Drive research and education to deliver excellent care and develop the next generation of clinicians and health care leaders

These priorities are inter-related in that success in one area is dependent on success in another. Detailed plans have been developed to support each of the priority areas.

All Northern Health employees will contribute to improving patient safety by being familiar with, and applying the National Safety and Quality Standards and criteria.

Safety, Quality and Clinical Governance at Northern Health:

Northern Health is dedicated to providing the highest quality of care in the safest possible environment for every patient every time. We are focused on strengthening the safety and quality of care across the continuum, with a focus on saving lives, reducing harm and improving the patient experience.

Northern Health's safety and quality improvement activities focus on delivering the Strategic Plan and Operational Business Plans, and are supported by the Northern Health Clinical Governance and Risk Frameworks, and the Northern Health Quality Improvement Methodology.

The Northern Health Quality Management System brings together the core elements that underpin how:

- Quality and Clinical Governance is determined.
- Quality services are delivered.
- Risk is managed.
- Audit – what matters is monitored.
- Our committees monitor performance of controls put in place to ensure safe patient care.

Commitment to Child Safety at Northern Health:

- We are committed to the safety, participation and empowerment of all children
- We are committed to the cultural safety of Aboriginal children, the cultural safety of children from a culturally and /or linguistically diverse backgrounds and to providing a safe environment for children with a disability.
- We have zero tolerance of child abuse, and all allegations and safety concerns will be treated very seriously and consistently with our robust policies and procedures
- We have legal and moral obligations to contact authorities when we are worried about a child's safety, which we follow vigorously

Family Violence and Child Safety Statement:

Northern Health is a child safe environment and is committed to protecting children from harm and abuse, in accordance with our legal obligations and the Child Safe Standards. Northern Health aims to identify and respond individuals who are at risk of child abuse and family violence and we encourage victim survivors to disclose to their health professional to seek support and safety. Northern Health has zero tolerance of child abuse and family violence, and all disclosures and safety concerns will be treated sensitively in accordance with our policies and procedures.

Northern Health actively promotes the safety and wellbeing of all individuals. We recognise and respect individual rights, identities, relationships and cultures. Our aim is to foster a trauma-informed, culturally safe and child safe environment.

Northern Health is an Information Sharing Entity (ISE) and is prescribed to the Family Violence Multi-Agency Risk Assessment & Management (MARAM) Framework and the Information Sharing Schemes. Family violence and child safety training is mandatory for our staff members and volunteers.

Essential:

- Current National Police and Working with Children History Check.
- The Staff Immunisation Questionnaire must be completed by all new employees as part of the mandatory on-boarding process. New employees are not permitted to undertake any activity that requires patient contact prior to clearance by the Staff Immunisation Nurses; this also includes evidence of having the Flu vaccination on a yearly basis. New employees with contra-indications to vaccinations or who decline vaccination are required to attend a face-to-face consultation with the Immunisation Nurses for appropriate documentation of their contraindications or declination. This must be completed PRIOR to commencing any work with Northern Health.



POSITION DESCRIPTION

Position Title:	Clinical Data Developer
Business Unit/Division:	VIC-HIVE/CMO office
Award Agreement:	Health and Allied Services, Managers and Administrative Workers (Victorian Public Sector) (Single Interest Employers) Enterprise Agreement
Classification:	HS Grade 5 – Grade 6 (commensurate with experience)
Employment Type:	Full-time (1.0 EFT), 12-month fix term with opportunity for extension
Reports to:	Director, Clinical Digital Innovation
Date Prepared/Updated:	June 2025

ROLE STATEMENT

General Role Statement:

This position is a hands-on clinical data development role within the Clinical Digital Innovation team. The primary focus is building and maintaining the data pipelines that feed Northern Health's digital datamart — extracting data from the electronic medical record (EMR), transforming it, and loading it into a structured clinical data repository.

The role is designed for an early- to mid-career developer with strong SQL skills, a methodical approach to working with messy real-world data, and a willingness to work in a clinically embedded context. The successful candidate will work directly under the supervision and informatics leadership of the Director, Clinical Digital Innovation, with close collaboration with the digital health development teams. No prior clinical-informatics or OMOP experience is required — mentorship and on-the-job training will be provided.

The role is not a general IT support or EMR configuration role. It requires hands-on data management capability, a willingness to learn, and a commitment to building well-documented, reproducible, and auditable data pipelines. Whilst this is primarily a technical role, the successful candidate will also have access to mentorship around applied clinical informatics, specifically around clinical data models, governance, and safety in a clinical environment.

A core objective of this role is the development of the end-to-end data pipeline that underpins the clinical datamart used for advanced analytics: extracting data from the EMR, staging it in a local data warehouse, transferring it to AWS S3, and loading it into an OMOP-style repository. The emphasis is on pipelines that are reliable, well-documented, and auditable, with rigorous attention to data quality when handling messy real-world health data.

This position is responsible for:

Developing and maintaining the data extraction, transformation, and loading (ETL) pipelines that support Northern Health's clinical datamart and biobank. Working under the direct supervision and informatics leadership of the Director, Clinical Digital Innovation, the role contributes to the design, implementation, and ongoing improvement of SQL- and Python-based tools that move clinical data from the EMR through a local data warehouse and AWS S3 into an OMOP Lite repository, with a strong emphasis on data quality, documentation, and reproducibility.

All employees:**Quality, Safety, Risk and Continuous Improvement**

- Maintain an understanding of individual responsibility for patient safety, quality & risk and contribute to organisational quality and safety initiatives.
- Follow organisational safety, quality & risk policies and procedures
- Maintain a safe working environment for yourself, your colleagues and members of the public.
- Maintain an understanding of individual responsibility for patient safety, quality & risk as outlined in Northern Health [Clinical Governance & Patient Experience - Trusted Care](#).
- Contribute to organisational quality and safety initiatives.
- Escalate concerns regarding safety, quality & risk to appropriate staff members, if unable to rectify yourself.
- Promote and participate in the evaluation and continuous improvement processes.
- Comply with principles of Patient Centred Care.
- Comply with Northern Health's commitment to Child Safety
- Comply with Northern Health mandatory continuing professional development requirements.
- Comply with requirement of National Safety & Quality Health Service Standards and other relevant regulatory requirements.
- All employees of Northern Health must comply with the health service's Staff Health / Workforce Immunisation procedure (as amended from time to time) together with any relevant State Government and Departmental directives. This requires all employees to be vaccinated for various diseases such as, but not limited to influenza.

KEY RESULT AREAS AND MAJOR RESPONSIBILITIES

1. Data Extraction & Pipeline Development

- Extract data from the EMR and source systems via ODBC, including decompression and parsing of binary/BLOB fields
- Build and maintain the pipeline that moves data from the EMR through a local data warehouse and AWS S3 into an OMOP Lite repository
- Work with messy real-world clinical data, applying data-quality checks and validation at each stage of the pipeline

2. Data Transformation

- Develop ETL processes for ingestion, transformation, and loading of clinical data into the data warehouse and structured repositories
- Write and maintain clean, well-documented Python and SQL code for data extraction, transformation, and analysis
- Build data structures consistent with data-warehousing principles — staging versus curated layers, incremental loads, lineage, and documentation — under guidance from clinical informatics leadership
- Contribute to the development of reproducible, version-controlled analytical workflows (Git-based)
- Automate data quality checks, pipeline monitoring, and alerting

3. Data Governance, Quality & Documentation

- Develop and maintain documentation and data-lineage records for all pipeline components
- Support the preparation of technical documentation for ethics applications and data governance submissions

- Support the implementation of pipeline monitoring and alerting, including failure-mode logging
- Adhere to Northern Health data governance, information security, and privacy frameworks at all times

4. Collaboration & Stakeholder Engagement

- Work closely with the Director, Clinical Digital Innovation on data architecture decisions, implementation priorities, and pipeline design
- Collaborate with the digital health development teams on a regular basis to ensure alignment with organisational cloud infrastructure standards
- Collaborate with clinicians, data analysts, and IT teams to understand requirements and translate them into technical solutions
- Participate in team meetings, sprint reviews, and structured supervision sessions
- Communicate technical work clearly to non-technical stakeholders, including clinicians and operational managers

5. Organisational Responsibilities

- Comply with Northern Health's safety, quality, risk, and clinical governance frameworks
- Maintain mandatory training, immunisation, and compliance requirements as specified by Northern Health policy
- Contribute to a culture of continuous improvement, psychological safety, and inclusive practice

SELECTION CRITERIA

ESSENTIAL — Qualifications & Education	
Formal qualifications	• Bachelor's degree in Computer Science, Software Engineering, Data Science, or a related discipline • Candidates without the qualifications above are invited to demonstrate equivalent depth through applied project work, certifications, or professional experience
Experience level	• Early- to mid-career; applied experience in a technical role is valued • Candidates should be able to demonstrate that they have built, deployed, or meaningfully contributed to real-world data or software projects • A portfolio, GitHub profile, or equivalent evidence of applied technical work is desired
ESSENTIAL — Technical Skills	
SQL (primary skill)	• Demonstrated applied experience writing SQL against relational databases — queries, joins, and data transformations • Comfortable reading and reasoning about an existing schema, and writing maintainable, well-structured SQL • This is the primary day-to-day skill for the role
Python for data processing	• Comfortable using Python for data processing and ETL (pandas or equivalent) • Valued but not essential — strong SQL is the more important skill for this role • Candidates with limited Python will develop it on the job

Data pipeline development	- Working understanding of database connectivity / ODBC-based extraction from source systems - Some exposure to handling binary or BLOB data (decompression, parsing) is expected; depth in this area is desirable and can be developed with support
ADVANTAGEOUS BUT NOT ESSENTIAL — Additional Technical & Domain Knowledge	
AWS S3 / cloud storage	- Any familiarity with cloud object storage such as AWS S3 is advantageous but not expected - Trainable on the job — no prior AWS experience required. A technical AWS team is available to support infrastructure.
Data warehousing principles	Any exposure to data-warehousing concepts — staging versus curated layers, incremental loads, data lineage — is advantageous
Data structures for AI/ML	- An understanding of how curated data is structured for downstream AI/ML use is advantageous but not essential - Candidates will develop this understanding on the job with mentorship
Healthcare data standards and OMOP Data models	- Any familiarity with common healthcare data standards such as ICD-10, and the OMOP Common Data Model (CDM) is advantageous but not expected - Candidates will develop this understanding on the job with mentorship
ESSENTIAL — Professional Attributes	
Willingness to learn	- Demonstrates genuine curiosity and a track record of picking up new skills independently - Comfortable being a beginner in parts of the role — clinical data, cloud storage, and the OMOP data model will be new for most candidates - Engages with feedback and applies it without needing repeated direction
Documentation discipline	- Understands that writing clear notes, comments, and documentation is part of the job - Does not treat documentation as optional — even at this level, clear records of what was built and why are expected
Reliability & ownership	- Follows through on assigned tasks - Asks for scope clarification rather than guessing - Takes responsibility for testing their own work before handover - Methodical with data — validates and reconciles rather than assuming inputs are clean
Responsible use of AI coding tools	- Uses AI coding assistants (e.g. Claude Code) responsibly — reviews and tests generated output rather than accepting it blindly - Understands the limits of these tools and remains accountable for the code that ships
Communication & collaboration	- Can explain what they have built, the reasoning behind design decisions, and the limitations of their work — to both technical peers and non-technical clinical or operational colleagues - Works constructively and transparently within a small, high-trust team

- Proactively communicates blockers, progress, and uncertainties rather than going silent under pressure

Employee Declaration

I have read, understood and accept the above Position Description.
(Please print name)

Signature: Date:

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