



Position Description

Position Title:	Health Data Scientist or Early Career Health Data Scientist
Salary Range:	Professional & Administrative Salaries Level 6-7 Step 1-5
Reporting Manager:	James Scandol
Direct Reports:	None
Home Group:	Centre for Health Analytics

Who are we?

The Murdoch Children's Research Institute (MCRI) is home to significant scientific discoveries. We believe there is an answer, a cure or a better treatment for every childhood condition – and we're determined to find it.

We are a diverse team of world-leading researchers, doctors, engineers, and hardworking professionals in corporate and scientific services from all corners of the world with one shared goal – to transform child health worldwide.

Our strength lies in our partnership and co-location with The Royal Children's Hospital (RCH) and the University of Melbourne – the Melbourne Children's Campus. This rare model amplifies opportunities to quickly translate research into clinical care.

Together, we share a powerful vision: re-imagine the future of child health.

What is it like to work for us?

We are committed to ensuring a positive working environment that values all backgrounds and experiences. We cultivate an inclusive culture that is underpinned by equal opportunity for all and a culture based on respect, consideration and dignity. We are also committed to developing our people and fostering an environment where learning and development is central to our staff reaching their full potential.

Position Overview

The Centre for Health Analytics is an exciting new collaborative venture for the Melbourne Children's campus partners. The Centre has been created to support the vision of Melbourne Children's to become an internationally leading paediatric campus in the use of data to improve all aspects of patient care, operations, education and research. The Centre has received generous financial support from the Royal Children's Hospital Foundation and the University of Melbourne has funded a foundation position of Professor of Child Health Informatics who will work closely with the Centre.

The Health Data Scientist or Early Career Health Data Scientist will work within the Centre for Health Analytics team and be responsible for the design, development, validation, and support of technical solutions for a range of clinical data science problems that are being managed by the Centre.

The Health Data Scientist or Early Career Health Data Scientist will be responsible for processes and tasks associated with the extraction, transformation, analysis and presentation of health data from the Parkville Electronic Medical Record (EMR) and other RCH information systems. The technical aspects of the role will include the development,

validation and troubleshooting of complex and performant SQL queries of health data, then the quantitative analysis and visualisation of extracted data using open source and commercial software. The role will also support the development and implementation of a health data access and analysis platform.

Both the Health Data Scientist and Early Career Health Data Scientist will report to the Lead Health Informatician and will include additional opportunities for training and development.

Key Accountabilities

Analysis

- Work with the Centre for Health Analytics Team to complete health data extracts and analysis requests that achieve the goals of the Centre.
- Work with stakeholders and other members of the team to analyse health data problems and then design and document requirements for solutions.
- In partnership with stakeholders, complete quantitative data analyses using open source and commercial software. These data analyses may include exploratory, descriptive, hypothesis tests or predictive analytics.
- Review and optimise SQL queries to increase performance or reduce impacts of queries on database servers.
- Maintain system and support documentation.
- Critically review design, requirements, and specifications documentation with an eye for detail.

Relationship Management & Communication

- Maintain strong working relationships with the internal and external stakeholders to participate in a coordinated support model for the Centre for Health Analytics.
- Work closely with the stakeholders and other members of the team to understand and prioritise requests for data extracts, reports or analyses that support the goals of the Centre for Health Analytics.
- Work with Centre for Health Analytics Team and stakeholders to provide multiple solutions to identified problems, communicate solution options, then agree a way forward.
- Present technical concepts in simple and understandable terms so as both technical and non-technical audiences gain an understanding of the problem and the proposed solution.

Team Membership

- Contribute to a positive and supportive work environment for all Centre for Health Analytics team members.
- Contribute to the continuous improvement of health data and analytical products from the Centre for Health Analytics.
- Participate in sharing learnings amongst team members.
- Report the statuses of projects and work packages.

Essential Selection Criteria for Both Roles

- A relevant tertiary degree in computer science, data science, statistics or equivalent.
- Demonstrated ability to gather and document user requirements.
- Knowledge of, and skills using, data science software such as R, Python, Julia, Stata, SPSS, or SAS.
- Interpersonal skills with particular emphasis on gaining consensus, facilitation, and consultation.
- Ability to handle confidential and sensitive information with discretion.

Essential Selection Criteria for Health Data Scientist

- Highly developed and adaptable analytical and problem-solving skills within a complex data environment.
- Significant experience in the design, implementation, validation and documentation of data extraction and data transformation processes from an SQL-based information system.
- Demonstrated ability to build and maintain key working relationships across organisations to ensure a high level of service to customers.

Essential Selection Criteria for an Early Career Health Data Scientist

- Adaptable analytical and problem-solving skills within a complex data environment.
- Experience in the design, implementation, validation and documentation of data extraction and data transformation processes from an SQL-based information system.

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- Ability to build and maintain key working relationships across organisations to ensure a high level of service to customers.

Preferred Selection Criteria for Both Roles

- A post-graduate qualification in computer science, data science, statistics or equivalent.
- Experience working with health data or health information systems within a hospital, government or private organisation.
- Certifications or demonstrated experience in Microsoft data technologies (SQL Server, SSMS, SSRS, SSIS, Power Platform).
- Knowledge and experience with:
 - machine learning methods (such as natural language processing), or
 - research methods (such as experimental design and biostatistical analysis).

Conditions of Employment

- Working with Children Check and National Police Clearance (if appointed) in compliance with the Victorian Government Child Safety Standards.
- Employees are required to maintain a valid Working with Children Check throughout their employment.
- Employees must have the right to reside and work in Australia and meet any applicable visa conditions.
- Employment will be subject to the successful completion of the Epic EMR Cogito Certification within six months of commencing employment.
- Employees will be required to have an honorary appointment at the RCH and must therefore maintain required immunisations and serology results as part of their employment.

Health, Safety & Wellbeing

- We are committed to providing and maintaining a working environment which protects the health, safety and wellbeing of our people, partners and the community.
- Employees conducting duties on behalf of MCRI are expected to meet the environment, health and wellbeing requirements and responsibilities specifically required for the role.
- We are committed to supporting children in their right to be safe and adhere to the responsibilities we have to ensure their protection and safety as per the Child Safety Standards Policy.
- Specified positions may be subject to medical review to ensure that the inherent requirements of the role can be undertaken safely.

As MCRI evolves to meet its changing strategic and operational needs and objectives, so will the roles required of its employees. As such, this document is not intended to represent the position which the occupant will perform in perpetuity. This position description is intended to provide an overall view of the incumbent's role as at the date of this statement.