Position Description

Position title	Health Data Scientist
Directorate	Data, Evidence and Impact Services
Reports to	Population Health Analytics Manager
Employee Status	Full time, ongoing (Hybrid Working model – Heatherton office and Work from home)

About South Eastern Melbourne PHN

At South Eastern Melbourne Primary Health Network (SEMPHN), we foster and support a more equitable, person-centred, and seamless health system to positively impact the health outcomes for our communities.

Reporting to an independent Board, our vision is for the people of southeast Melbourne to have the opportunity to live their healthiest lives possible. We support this by providing:

- Evidence, planning and influencing services to meet population health needs.
- Capacity building services to grow primary health and its workforce in our region.
- Commissioning services to translate national and state policy into local services and the regional health system.

We are one of six Primary Health Networks (PHNs) in Victoria, and thirty-one PHNs across Australia, with around 1.6 million residents in the SEMPHN catchment. Funded primarily by the Australian Government, the Commonwealth priority areas for improvement and innovation for primary health are:

- Mental health
- Alcohol and Other Drugs (AOD)
- Aboriginal and Torres Strait Islander Health
- Aged care
- Population health
- Health workforce development
- Digital health

Our local focus it to positively impact population health and service demand, consumer-focused healthcare, primary health services, innovation and system reform and organisational excellence and sustainability.

Our strategy, 'Path to Impact', clearly articulates SEMPHN's role within the wider healthcare system and community to maximise our value to southeast Melbourne communities, health service consumers and providers, funders and policy makers.

Our Values

Community   Collaboration   Accountability   Respect   Excellence   Solution-focused

SEMPHNs values are at the heart of our work and shape what we do and how we do it. All SEMPHN team members are required to understand these organisational values, incorporate them into their daily work and demonstrate behaviours that reflect these values.

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About the Data, Evidence & Impact Services Directorate

The Data, Evidence and Impact Services Directorate is dedicated to advancing population health through comprehensive analytics, impact measurement, and a systems approach to health service planning. We curate and analyse data from diverse sources, including primary and secondary health services, as well as SEMPHN-commissioned programs, translating insights to improve population health outcomes and enhance service availability and accessibility. By driving organisational reporting, robust data practices, and overseeing program evaluations and KPIs, we ensure evidence-based action that delivers health services to the right people, at the right time, in the right location. Our commitment to data-driven insights fosters measurable progress and continuous improvement in our planning, commissioning and capacity building services.

Purpose of Position

The Health Data Scientist will play a pivotal role in driving data-informed decision-making to enhance the planning, development, monitoring, and evaluation of SEMPHN's primary health programs, with an emphasis on populations such as older persons, Aboriginal and Torres Strait Islander communities, and individuals with chronic health conditions. This role will support the transformation and modernisation of SEMPHN's data reporting and analytics capabilities, including the migration of reports to upgraded, cloud-based systems (e.g., transitioning from local or on-premises data systems to Azure and Databricks).

The Health Data Scientist will leverage advanced data science methodologies and statistical modelling techniques to analyse complex health data, uncover insights, and develop predictive models to improve health outcomes. This position requires a strong focus on cross-functional collaboration, translating data findings into actionable recommendations for program managers, service planning teams, and other stakeholders to guide and improve health services. The Health Data Scientist will also act as a mentor, advancing data literacy and fostering a data-driven culture within SEMPHN.

Key Responsibilities

Data Science and Statistical Modelling

- Apply advanced statistical, machine learning, and data analytics techniques to analyse health data and uncover actionable insights for improving health outcomes and optimising service delivery.
- Design predictive and classification models to help identify health trends, forecast patient outcomes, and support population health management initiatives.
- Lead the exploration and implementation of new analytical methodologies, tools, and technologies to improve health data analysis and drive innovation.
- Stay current with the latest developments in data science, machine learning, and healthcare analytics to continuously enhance analytical capabilities and apply best practices.
- Support other data science and analytic functions as required.
- Proficiency in statistical software, programming languages and analytics tools such as R, Python, ESRI and SQL; Power BI, and Tableau, or any other statistical/geospatial software packages.

Data management and Integration

- Design and implement robust processes for extracting, loading, and transforming (ELT) large, complex health data sets from various sources, ensuring data quality and alignment with regulatory standards.
- Develop data pipelines and workflows for streamlined data integration across platforms, enabling scalable and efficient data management.
- Gather, understand, and interpret information from many data sources and systems; and understand their relationships and limitations to support regular monitoring and reporting.

- Implement rigorous data validation, cleaning, and quality assurance processes to maintain high standards of data accuracy, consistency, and integrity.
- Ensure all data handling practices comply with health data privacy regulations and organisational data governance standards and frameworks.

Insights Generation and Visualisation
- Translate complex data findings into clear, actionable insights through comprehensive reports, data visualisations, and interactive dashboards tailored to technical and non-technical audiences.
- Utilise advanced visualisation techniques to present complex health trends, patterns, and predictive analyses, facilitating data-driven decision-making.
- Design and deliver impactful presentations that effectively communicate analytical findings that support evidence-based initiatives, including presentations to non-technical audiences.

Collaboration with Cross-Functional Teams
- Partner with program managers, measurement and evaluation and data teams to understand business objectives and develop data solutions that address specific health challenges.
- Facilitate cross-functional projects by translating health data findings into strategic recommendations, enhancing data-driven health initiatives and quality improvement efforts.

Mentorship and Knowledge Sharing
- Support team members and stakeholders by providing guidance on data science methodologies, tools, and best practices, fostering a data-driven culture.
- Conduct training sessions and workshops to promote data literacy and empower others to leverage health data effectively.

Project management
- Assist in the achievement of the directorate's operational objectives and requirements.
- Provide comprehensive project support in the preparation of reports, letters and management of enquires.
- Provide appropriate professional advice and support in attendance of meetings, as required.

Stakeholder engagement
- Build and maintain strong relationships with data custodians facilitate timely and accurate data collection for the successful delivery of all projects.
- Liaise with internal and external data providers to ensure timely access to updated and relevant information, meeting the needs for service and workforce planning.
- Liaise with a range of key stakeholders regarding data collection and analysis needs.

Team Membership
- Promote, and maintain a positive and collaborative work environment.
- Identify opportunities to integrate and work collaboratively across other programs.
- Maintain effective relationships with internal and external stakeholders.

Quality
- Actively participate in and contribute to a continuous culture of workplace quality improvement activities.
- Comply with all relevant legislation, regulations, and professional standards.

Workplace Health and Safety
- Take reasonable care for own health and safety.
- Take reasonable care for the health and safety of others including the implementation of risk control measures within their control to prevent injuries or illnesses.

- Comply with all reasonable instruction of their manager/ supervisor to safeguard their health and safety.
- Cooperate with any reasonable SEMPHN's policies and/or procedures including the reporting of OH&S hazards or incidents.

Key Relationships & Stakeholders

Who	Purpose
Internal	
System and service planning & Measurement & Impact teams	Work collaboratively to understand and integrate identify health intelligence and data that identifies priorities that can be utilised to improve service planning activities.
Data, Reporting, and Business Intelligence teams	Support data scoping, migration ingestion and ELT activities, data governance
All directorates responsible for Commissioning	Support and collaborate within the team to best inform commissioning planning and design of health services and to ensure an integrated approach to commissioning.
Communications team	As required, ensure that needs, activities and outcomes are communicated to stakeholders and the broader catchment.
External	
Broader service system and sector agencies, Community and social service providers	Manage engagement processes with health professionals, the community, and other relevant stakeholders as required to inform population health analytics
Primary Health Insights	Liaise and collaborate on shared priorities
Universities and academic institutions	Liaise and collaborate on shared priorities
Other PHNs	Liaise and collaborate with PHN's on shared priorities

Qualifications

- Relevant tertiary qualifications in Statistics/Biostatistics, Data Science, or related discipline.

Skills, Knowledge and Experience

Technical Expertise

- Lead technical work that applies statistical and machine learning techniques to large healthcare datasets to forecast and classify problems relating to priority health areas, including coding in SQL, and Python, or R.
- Lead the development of insights reports including presentations, Power BI dashboards and reports (DAX modelling, Power BI gateways, mapping GIS information, Power Pivot, and Power BI web server.
- Proficiency to extract, load, transform, analyse, and report on large data sets with a high level of attention to detail, ideally in a health and/or population setting.

- Apply knowledge of cloud-based analytics management to support data management and access (preferably Databricks and Azure-based solutions e.g. using Data Factory or Synapse to move data between storage services using ETL/ELT such as Hyperscale SQL and Blob Storage, as well as access data via APIs).
- Apply knowledge of other analytical tools as necessary to support the work of the organisation (e.g. Excel Pivot Tables, Power Query).
- Demonstrate ability to triangulate multiple data sources and insights to identify solutions for service delivery investment.
- Demonstrate highly developed critical thinking and strong problem-solving skills, including collaborative performance and developing insights reports.

Project management
- Lead data-driven projects with strong skills in managing complex projects, with a track record of successful delivery on time.
- Work in a team, and independently, to effectively collaborate towards insightful products that progress the aims of the organisation.
- Manage competing demands with a structured approach to problem resolution, including time-management and prioritisation of work.
- Offer clear, authoritative, and well-informed advice to project teams and external organisations.

Interpersonal and Communication Skills
- Demonstrate strong interpersonal and communication skills, with a demonstrated capacity to build and maintain effective working relationships with internal and external stakeholders.
- Undertake projects engaging, influencing and managing change with internal and external stakeholders (including those without data analytics expertise) to identify priorities, develop and implement solutions and evaluate outcomes.
- Demonstrate strong verbal and written communication skills, with a track record of translating complex findings into accessible materials for diverse audiences.

Desirable
- Experience working in the primary health care data landscape, or in service design and health improvement initiatives is highly desirable. Where no direct sector experience, the ability to translate skills and experiences, and demonstrate capability to build understanding of the primary health sector and apply domain knowledge to work.
- Experience working in the health, NGO or community services sector.

Other

- A demonstrable commitment to SEMPHN organisational values.
- All employees of SEMPHN may be required to work across the SEMPHN catchment.
- All SEMPHN staff must take reasonable care for their own health and safety and others.
- All employees of SEMPHN must be permanent residents of Australia or hold a valid employment visa.
- A current Victorian Driver's License is required.
- All employees must abide by SEMPHN policies and procedures as varied from time to time.
- A National Police Check will be required in accordance with government funding requirements.