THE UNIVERSITY OF
MELBOURNE

Department of General Practice
Faculty of Medicine, Dentistry and Health Sciences

Health Data Analyst

POSITION NO	0057235
CLASSIFICATION	Level A
SALARY	$ 77,171 - $ 104,717 p.a.
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full-time
BASIS OF EMPLOYMENT	Fixed term until 30 June 2024
OTHER BENEFITS	https://about.unimelb.edu.au/careers/staff-benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers, select the relevant option ('Current Opportunities' or 'Jobs available to current staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Sally Philip Tel +0418 537 064 Email sally.philip@unimelb.edu.au *Please do not send your application to this contact*

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Position Summary

The University of Melbourne is a member of the Victorian Comprehensive Cancer Centre Alliance (VCCC). As part of its investment in clinical informatics, the VCCC and University of Melbourne have co-developed a data-driven research hub that enables better use of existing health data for research.

This platform is underpinned by the BioGrid Australia federated data-sharing infrastructure. The research hub supports the growth of health services research and data-driven cancer research. As part of the data-driven research hub, we are seeking an experienced data scientist to support development of a research program utilising linked data sources to analyse the delivery of cancer services, with an emphasis on early detection, cancer survivorship and the efficient use of hospital resources to improve the quality and access to cancer services.

The successful candidate is expected to utilise multiple data sources presenting real-world evidence on the incidence and diagnostic/treatment patterns for patients within the VCCC and affiliated hospitals. In addition, the role will provide advocacy and engagement for the hub, increasing awareness of available data sources and capabilities, and supporting capacity-building activities of researchers.

The role requires expertise in health informatics, including health services research and epidemiology, with a demonstrated understanding of the interpretation of health service administrative and clinical data.

This role is a University of Melbourne appointment and is based in the VCCC building.

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

- Provide expertise to the VCCC research data program and develop the required analytic capabilities to perform and advise on cancer health services research on linked datasets.
- Work closely with the data hub team and the staff of BioGrid Australia to support the development of the VCCC Data Hub and promote its use for health services research across the VCCC.
- Work with relevant collaborators to understand the assumptions inherent in data collection, including primary care data, so that unstandardised datasets can be effectively utilised for research.
- Support research projects mapping patterns of care using linked data sets, produce research outputs in peer reviewed journals and disseminate research findings through presentations at conferences and other forums.
- Support the preparation of research proposal submissions to external funding bodies.
- Attend to administrative functions primarily connected with the staff member's area of research and for the research group.
- Provide input into decisions about future studies including the sourcing of potential funds and the development of grant applications.
- Prepare materials for ethics submissions and obtain relevant data.

1.2 DATA ANALYSIS AND ADVICE

- Carry out timely, rigorous data analysis using modern data analysis tools to address a range of questions related to cancer services research, including describing patient pathways, patterns of care, early detection and survivorship

- Create informative and impactful data visualisations and summary statistics for presentation to senior stakeholders
- Implement data transformations and data quality checks to ensure high quality research outputs.
- Develop software tools and libraries for data analysis in the health services domain

1.3 TEACHING AND LEARNING

- Contribute to and participate in teaching and learning activities in the VCCC and the Department of General Practice to develop research capacity in using primary care, hospital and other linked data sources
- Support the development of educational programs to build researcher capabilities in use of large-scale linked data for research.

1.4 ENGAGEMENT

- Assist with responding to enquiries from external stakeholders and other clinical groups, including enquiries from hospital administrators and external researchers wishing to have advice on, access to and interpretation of data within the VCCC Data Hub.

1.5 SERVICE AND LEADERSHIP

- Actively participate in meetings and committees as appropriate
- Other duties commensurate with the position as directed by the Supervisors.
- Occupational Health and Safety (OH&S) responsibilities as outlined in section 4

  The responsibilities as specified above may be altered in accordance with the changing requirements of the position.

2. Selection Criteria

2.1 ESSENTIAL

- Minimum of a postgraduate degree in a relevant scientific discipline such as data sciences, biomedical statistics, computer sciences or others, with a demonstrated interest in health services research or systems improvement
- Demonstrated ability to present results from data analysis to a diverse range of stakeholders and articulate research in a public forum including conferences
- Demonstrated excellent verbal and written communication skills for effective research collaboration and engagement.
1. Demonstrated ability to work collaboratively within a research team to achieve project goals, meet deadlines, and manage time effectively
2. Demonstrated ability to work independently in data cleaning, linkage, descriptive and inferential statistics and apply research methodologies and quantitative data analyses relevant to the VCCC data research program
3. Demonstrated experience using statistical software in at least one statistical programming language such as R, Stata or Python with SQL for the analysis of clinical data

4. Experience with clinical data and resolving data quality issues to develop high quality data documentation

2.2 DESIRABLE

- Experience with primary care or hospital data and registries, and the analysis of linked data sets for health services research
- Expertise with open data science tools such as Python (numpy, pandas, searborn) or R (the tidyverse)
- Demonstrated knowledge of or familiarity with cancer health services
- Demonstrated ability to work with hospital administrators, researchers from other disciplines and other stakeholders in the Victorian Comprehensive Cancer Centre

2.3 SPECIAL REQUIREMENTS

May involve some local and/or international travel.
Equal Opportunity, Diversity and Inclusion

3. *Equal Opportunity, Diversity and Inclusion*

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion, and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the Advancing Melbourne strategy that addresses diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Advancing Melbourne.

4. *Occupational Health and Safety (OHS)*

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

https://safety.unimelb.edu.au/people/community/responsibilities-of-personnel

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. Other Information

5.1 DEPARTMENT OF GENERAL PRACTICE

www.gp.unimelb.edu.au

The Department of General Practice originated as a unit within the Department of Community Medicine in 1977. It was established as a separate department within the School of Medicine in 2001 and established the Primary Care Research Unit (PCRU) as a centre of excellence in primary care research, research training and knowledge exchange in 2006. The Department has 55 (full time equivalent) staff supported by an operating budget of $7 million and research income of approximately $7.1 million annually.

With an increased profile within the Melbourne Medical School, the Department has utilised its growing network of general practitioners (GPs) and primary health care providers in the community to ensure that University of Melbourne medical students are provided with quality community-based medical education. The Department delivers postgraduate training for primary care nurses, and research training for medical, honours, masters and PhD students. For more than 20 years, the Department has run a very successful General Practice academic registrar program.

The Department has a successful Primary Care Research Unit (PCRU), including a Clinical Trials Unit with a practice-based research and education network (VicREN), which comprises our community-based general practices and other primary care providers who contribute to and drive teaching and research. A proportion of our VicREN members are a part of our PATRON Community of Practice, where de-identified electronic practice data are stored to drive impactful research to advance primary care policy and practice.

Our cross-cutting research themes include clinical data analytics, implementation science and health services research. Central to our work is understanding the patient and practitioner experience and through co-production methodologies involving them in identifying the challenges, and designing and testing solutions. Using clinical data analytics, we explore patient pathways through health care and describe the epidemiology of health and disease in primary care. With a focus on primary care innovation, we develop, test and implement simple and complex interventions including digital technologies, such as a range of risk stratification and point-of-care decision making tools. The Department also has successful research programs in specialised areas in Cancer; Children and Young People's Health; Diabetes and Cardio-Metabolic Conditions; Mental Health; and Abuse and Violence.

5.2 UNIVERSITY OF MELBOURNE CENTRE FOR CANCER RESEARCH

Led by Professor Sean Grimmond, the University of Melbourne Centre for Cancer Research (UMCCR) aims to foster innovation and integration in cancer care, research, education and training to achieve a world-leading cancer centre and workforce. It brings together leading cancer researchers from across the University to enable collaboration that ultimately results in improved outcomes for cancer patients.

5.3 VICTORIAN COMPREHENSIVE CANCER CENTRE

The vision for the VCCC is to save lives through the integration of cancer research, education and patient care. Founded in the holistic principles of the internationally-recognised Comprehensive Cancer Centre model, the Victorian Comprehensive Cancer Centre is a powerful alliance of 10 leading research and clinical institutions with a shared commitment to working together to advance and accelerate cancer research, treatments, preventions and cures. The VCCC's multi-site, multi-disciplinary model brings together the complementary strengths of Peter MacCallum Cancer Centre, Melbourne Health (including The Royal Melbourne Hospital), The University of Melbourne, The Walter and Eliza Hall Institute of Medical Research, The Royal Women's Hospital, The Royal Children's Hospital, Western Health, St Vincent's Hospital Melbourne (including St Vincent's Institute), Austin Health (including the Olivia Newton-John Cancer Research Institute and Austin Lifesciences) and Murdoch Children's Research Institute.

5.4 MELBOURNE MEDICAL SCHOOL

http://www.medicine.unimelb.edu.au/

Established in 1862, Melbourne Medical School (MMS) in the Faculty of Medicine, Dentistry and Health Sciences at The University of Melbourne is the oldest medical school in Australia. It is internationally renowned for global leadership in teaching and training, health research, policy and practice. MMS is ranked 14th in the world (Times Higher Education World University Rankings 2022 for clinical, pre-clinical and health), has strong academic partnerships and ground-breaking collaborative research programs with leading public and private hospitals, as well as leading medical research institutes and centres in Australia and internationally.

Under the leadership of Professor John Prins, MMS spans all major fields of medicine and is comprised of thirteen clinical departments:

- Baker Department of Cardiometabolic Health;

- Clinical Pathology;

- Critical Care;

- General Practice;

- Medical Education;

- Infectious Diseases;

- Medicine;

- Obstetrics and Gynaecology;

- Paediatrics;

- Psychiatry;

- Radiology;

- Rural Health; and

- Surgery.

MMS has more than 1,000 academic and professional staff members located at the Parkville campus or embedded within health services throughout metropolitan Melbourne and rural Victoria. Staff are privileged to work alongside more than 2,725 honorary appointees from the health sector who generously contribute their time, knowledge, research and clinical expertise.

MMS is committed to improving community wellbeing through the discovery and application of new knowledge. With annual research income of $165 million, the School's research effort is highly collaborative, spanning research programs from basic to translational. The School has research collaborations across the 47 partner organisations in the vibrant Melbourne Biomedical Precinct, as well as nationally and internationally. These partnerships enable medical advances to impact healthcare delivery as rapidly and seamlessly as possible.

The School's flagship Doctor of Medicine (MD) degree was the first Masters level entry-to-practice qualification of its kind developed in Australia, setting a new benchmark in medical education. Now, the new curriculum launched in 2022 has created more responsive, modular, technology-enhanced learning for state-of-the-art curriculum delivery. Continuous research and discovery options, and an ability to tailor the degree, allows each student to gain deeper experience in areas of greatest interest. The MD Rural Pathway offers students the opportunity to undertake their entire program in rural Victoria, with a $6.5 million expansion of facilities in Shepparton to accommodate this. There is also an expanded range of joint degree pathways on offer. The School utilises the Department of General Practice's continually expanding network of general practitioners and primary healthcare providers in the community to ensure that MD students are also provided with quality community-based medical education.

In addition to the MD, MMS has an ever-expanding portfolio of other vocationally oriented programs. These teach research skills, leadership and continuing professional development in specific disciplines. An emphasis on the clinician-scientist career trajectory – with training, support and ongoing career pathways at graduate and postgraduate levels – is central to the School's development of future leaders in all aspects of healthcare, education, research and policy. MMS has over 600 higher degree by research candidates located both within Departments and across its network of partners.

School staff and honorary appointees lead and participate in public debate and advocacy around key health issues and policy based on the MMS values of commitment, integrity, compassion, respect and service. The School also offers a range of initiatives and programs in support of its diverse and inclusive culture: https://medicine.unimelb.edu.au/about/diversity-and-inclusion MMS is always looking to recruit talented individuals across a wide range of medical disciplines which include leadership roles. This presents a wonderful opportunity for appointees to help drive the strategy, growth and continued excellence of Australia's leading medical school.

5.5 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

www.mdhs.unimelb.edu.au

The Faculty of Medicine, Dentistry & Health Sciences has an enviable research record and is the University of Melbourne's largest faculty in terms of management of financial resources, employment of academic and professional staff, teaching of undergraduate and postgraduate (including research higher degree) students and the conduct of basic and applied research. The Faculty's annual revenue is $628m with approximately 55% of this income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including more than 1,300 research higher degree students. The Faculty has approximately 2,195 staff comprising 642 professional staff and 1,553 research and teaching staff.

The Faculty has appointed Australia's first Associate Dean (Indigenous Development) to lead the development and implementation of the Faculty's Reconciliation Action Plan (RAP), which will be aligned with the broader University – wide plan. To enable the Faculty to improve its Indigenous expertise knowledge base, the Faculty's RAP will address Indigenous employment, Indigenous student recruitment and retention, Indigenous cultural recognition and building partnerships with the Indigenous community as key areas of development.

5.6 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at http://about.unimelb.edu.au/careers

5.7 ADVANCING MELBOURNE

The University's strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University's commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.

- We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.
- We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.
- We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.
- We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne's academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes; place, community, education, discovery and global.

5.8 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at https://about.unimelb.edu.au/strategy/governance