



Job Description

POSITION TITLE:	Research Associate/Research Fellow (mathematical/statistical modelling)
LOCATION:	SAHMRI, North Terrace
REPORTS TO:	Deputy Director, Health Policy Centre
DEPARTMENT:	Health Policy Centre

PURPOSE AND SCOPE OF THE POSITION

Reporting to the Deputy Director, the Research Associate/Research Fellow (modelling) is a new position being established as part of an agreement with Preventive Health SA. The Research Associate/Research Fellow (modelling) will use diverse types of data (e.g. aggregate summary statistics, published evidence of effect sizes) to develop stochastic simulation models to inform public health policy decision making. The primary project will involve modelling the health and economic benefits of public health interventions aimed at reducing preventable chronic disease-related hospital admissions (e.g. Diabetes complications). Outputs from the project will be used to brief SA Government on public health policy and will be written up for publication in peer-reviewed journals.

Based in Health Policy Centre SAHMRI, the Research Associate/Research Fellow (modelling) will be part of a broader team of behavioural scientists and policy experts at the Health Policy Centre, where behavioural research is conducted to inform the development of policy and legislation to improve health outcomes at a population level. The Centre has programs of research in public health, specialising in dietary risk and obesity prevention.

The Research Associate/Research Fellow (modelling) will work closely with other members of the Health Policy Centre to ensure all research activities are conducted to a high standard and may also interact with internal and external stakeholders. This role may direct Research Assistants and work in collaboration with students from time-to-time.

KEY RESPONSIBILITIES

In order to help inform prevention strategy, policy and interventions:

- Undertake the development and application of mathematical and statistical models of preventable hospitalisations using appropriate techniques. This will include:
 - Sourcing and managing data from a variety of sources
 - Designing and delivering dynamic simulation modelling solutions according to project requirements
 - Delivering high quality and interpretable analysis of model outputs within the agreed timelines.
- Conduct literature searches and literature reviews to inform the development of the models.
- Preparing and writing reports and briefings for stakeholders.
- Liaise with policy agencies and stakeholders to ensure model alignment with stakeholder needs.
- Contribute to peer reviewed journal publications and presentations for scientific conferences, and grant applications and funding submissions.
- Execute work in an efficient manner and meet all time frames, including those set by external funders of research.
- Develop and maintain productive relationships with Health Policy Centre team members, other SAHMRI staff, as well as external research partners and key stakeholders.



SPECIAL REQUIREMENTS

- Some out of hours' work may be required.
- Any conflicts arising from the persons' interests and associations with food, beverage, alcohol or tobacco industry, including commercial interests, will be taken into account in consideration of the persons' suitability for this role.

Person Specification

QUALIFICATIONS

Minimum of tertiary qualification (with honours) in mathematics and/or statistics, with experience in stochastic simulation modelling of real-world data. Masters and/or PhD desirable, or equivalent research experience in a similar health research setting.

EXPERIENCE, KNOWLEDGE AND SKILLS

- Experience in developing simulation models using at least one of the following dynamic simulation modelling techniques: system dynamics modelling, discrete event simulation, agent-based modelling (last two preferable).
- Demonstrated proficiency in high-level analytical skills and a methodological approach to data management, including experience in producing research-level documented code in an open-source language.
- Good knowledge of data security, maintaining confidentiality, and sensitivity to political considerations.
- Ability to plan and organise workload to achieve targets and meet internal and external deadlines.
- Report writing skills that demonstrate attention to detail including accurate referencing, data entry and formatting, with proficiency in referencing programs such as Endnote.
- Strong interpersonal and communication skills for liaising with internal and external partners to develop and implement research and for communicating research findings in a constructive and relevant manner.
- Demonstrated interest or experience in public health, medicine, economics, or related field.
- Demonstrated experience in or ability to contribute to writing journal publications and grant applications and submissions to funding bodies.
- Self-motivation and ability to work under limited supervision.
- The ability to develop and maintain productive relationships with Health Policy Centre members and other SAHMRI staff.
- Support SAHMRI's commitment to reconciliation and acknowledge the importance of working in partnership with Aboriginal and Torres Strait Islander People
- Able to demonstrate the following SAHMRI Values and Culture:
 - **Excellence** – Persistent and Focused
 - **Innovation** – Bold, Driven, Dynamic
 - **Courage** – Collaborative and Enabling
 - **Integrity** – Embrace Diversity, Demand Equity
 - **Teamwork** – Friendly, Fast, Flexible, Fun

LICENCES

- None required