

## **PROSTATE CANCER STUDY PHD POSITION DESCRIPTION**

POSITION TITLE	PhD in Health Economics
CLASSIFICATION	PhD Candidate
POSITION NO.	
TIME FRACTION	1 FTE
TENURE STATUS	Limited to three years
STIPEND	\$30,000p/a
BUDGET DIVISION	School of Medicine
ORGANISATIONAL UNIT	Waikato Clinical School
REPORTING RELATIONSHIPS	Responsible to Paul Rouse and Richard Eldin (TBC)

### **MIDLANDS PROSTATE CANCER STUDY**

The Midlands Prostate Cancer study is funded for three years through HRC and MoH. There are four phases of the project including: 1) exploring GP PSA testing; 2) gaining a national view of PCa (1994-current); 3) investigating treatment pathways to care in the Midland region; and, 4) understanding the costs and complications of PCa.

This PhD is focused on addressing phase four of this overall study; understanding the costs and complications of Prostate Cancer.

### **RESEARCH AIMS**

Broadly the aim is to investigate the spectrum of complications arising from the diagnosis and treatment of prostate cancer. More specifically the objective is to evaluate the direct and indirect costs for each prostate cancer treatment pathway – from primary to secondary and tertiary care – and develop an economic model to determine costs, duration and likelihood of outcome/s associated with each pathway.

### **THE COSTS AND COMPLICATIONS OF PROSTATE CANCER**

This PhD shall investigate the health care costs involved in the prostate cancer treatment pathway. The pathways will be established based on mapping the pathways of approximately 1200 men in the Midland region, diagnosed with prostate cancer between 2009-2010 (extended to 2007-2008 for Maori and Pacific men); and, also from the 100 men taken from this cohort for a more in-depth review of their entire clinical pathway, from GP to tertiary care. A decision tree will be utilised for mapping pathways. In addition to clinical notes, GP notes may need to be reviewed and National datasets (including NZCR, MORT, PHARMS, NNPAC) will also be utilised to populate and substantiate collected data. Other

data sources will be: specialists and health centres such as outpatient centres, radiotherapy, laboratories and pharmacies

An economic model will be developed to determine the costs and outcomes associated with each identified pathway of care. The model will allow for the opportunity to explore the impact of different treatment options on: costs, duration (e.g., patient waiting times/referral waiting times) and outcomes; and, should allow for sensitivity analyses where the data are uncertain.

Direct costs for each pathway, including those incurred in primary care, those incurred through the public health system and where appropriate costs incurred in specialist private practice will be mapped. Data for personal costs will be collected as part of a sub-sample of 100 men, which includes interviews and questionnaires with patients. An activity based costing approach will be used to cost product groups using a blend of direct and indirect cost methods. These will be organized around a hierarchy of activities that extend from unit level (i.e. the patient), batch, and product to facility levels to capture different cost variability and drivers at each level. This will ensure distinction between short-term and longer-term marginal costs.

An appropriate analytic plan will be devised in advance of data collection in consultation with the study statistician.

#### **THE POSITION SUMMARY**

In addition to the original project funding we have also secured Ministry of Health funding for a PhD to address understanding the economic costs of prostate cancer. The candidate will work alongside key people; academics, specialists, GPs and other health professionals within the wider research team. The studentship will run for a total term of three years with remuneration is an education grant of \$35,000 per annum. The position is based in the Waikato Clinical School in Hamilton.

The student will be involved in the study specifically involving issues of assessing the costs of prostate cancer from PSA test through to complication treatment for men in the phase three cohort and phase four sub-sample. Good local data on complications of prostate cancer are not available and there is no New Zealand data on the costs of treatment. The student would directly contribute to knowledge building around the costs of prostate cancer as it occurs in New Zealand.

We would also anticipate that through their focus we would also gain insight into the identification of inequities in care along the treatment pathway.

#### **KEY RESPONSIBILITIES**

- Assist with study design, ethics, clinical note data collection
- Assist with follow up of recruited participants

- Undertake data analysis
- Assist with preparation of written materials and presentations including reports and articles to communicate results to diverse audiences, such as, academic peers, end users/consumers, advocacy groups, wider community
- Perform such other duties as may be required by the Project Manager and Principal Investigator
- Complete thesis within 3 years

#### **PERSON SPECIFICATION**

The candidate should be an enthusiastic quantitative researcher, who is willing and able to work constructively and harmoniously within a wider research team. You should have excellent interpersonal skills and the ability to meet deadlines.

#### **ESSENTIAL SELECTION CRITERIA**

- An undergraduate degree with Honours, First Class or Second Class (Div. 1)
- A Masters Degree with First or Second Class Honours, or otherwise meet the requirements for entry to a PhD at the University of Auckland.
- Experience at quantitative research
- Background in Health and economics/accounting
- Experience with economic evaluation and detailed costings
- Good analytical skills
- Able to work collaboratively with other staff members.
- Able to work independently in an efficient and professional manner

#### **DESIRABLE SELECTION CRITERIA**

- Experience with some statistical software package (eg SAS, Stata, SPSS, or Statistica)
- An understanding of Māori tikanga and te reo
- Publications in peer reviewed medical journals
- Previous experience of health research
- Experience of teaching

#### **PERSONAL DEVELOPMENT**

All staff are encouraged to take part in continuing educational activities. Support will be provided from the within the School of Medicine in Auckland.