

School of Public Health

2018 Research Activities Student Research Projects

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About the School of Public Health

The School of Public Health at the University of Adelaide aims to prevent disease and promote health in populations. We practise public health through our engagement as a community of leading scientists, educators, and students to advance innovative ideas to change individual behaviours, public policies, and health care practices.

We are recognised locally, nationally and internationally for our teaching and research. Our senior academic staff are leaders in their fields— in areas such as child health and development, life course epidemiology, genetic epidemiology, health technology assessment, economic modelling, health impacts of climate change, indigenous health, community engagement, and the use of deliberative methods in health research. Our teaching and research inform each other in a creative and productive relationship: all our top researchers teach and our top teachers' research.

Our core academic staff work closely with colleagues in government, non-government organisations, and industry, many of whom are academic title holders within the School. Our title holders help us to ensure that our teaching, research and community engagement remain grounded in the identification, analysis, and resolution of real world problems.

This document contains a snapshot of currently available research projects suitable for students interested in undertaking supervised research within our School. As evidenced by the descriptions and requirements of each, it indicates the diversity of research topics and methodologies encompassed with Public Health, providing a wide range of potential topics for research.

Projects are listed under the four academic units within our School:

- > Epidemiology and Biostatistics
- > Environmental and Occupational Health
- > Health Economics and Policy
- > Social and Behavioural Health Sciences

Each project may be suited for students at different stages in their research development, whether undergraduate, Masters (coursework), or Higher Degree. This is indicated in project descriptions. If you are interested in a particular project for your studies, please contact the individuals listed below.

Undergraduate

3rd Year Bachelor of Health

Science (Advanced) <u>Lynne.giles@adelaide.edu.au</u>
Honours <u>Adriana.milazzo@adelaide.edu.au</u>
Summer Vacation <u>teresa.burgess@adelaide.edu.au</u>

Masters (coursework)

6 unit projects <u>teresa.burgess@adelaide.edu.au</u>
12 unit projects <u>teresa.burgess@adelaide.edu.au</u>
24 unit project: <u>teresa.burgess@adelaide.edu.au</u>
teresa.burgess@adelaide.edu.au

Higher degree by research (HDR)

We prefer to supervise projects that fit within the overall framework of our established research programs; more information on these can be found here. http://health.adelaide.edu.au/public-health/research/areas/. Although projects listed here target these areas, we can consider other research topics or projects, and enquiries should be directed to the persons listed above.

About the Research Courses

Bachelor of Health and Medical Sciences (Honours) (18 units)

PUB HLTH 4600A Honours Research Project Part I and PUB HLTH 4600B Honours Research Project Part II

The course is designed for students to develop knowledge and skills in a chosen research field as well as general skills in working independently, critical reasoning, scientific writing and presentation. The course will expose students to a professional research environment and provide the opportunity to contribute to the body of knowledge in the public health domain.

Course Learning Outcomes

On successful completion of this course the student will be able to:

- 1. Critically appraise research evidence in a specific area relevant to public health.
- 2. Formulate a research question relevant to public health.
- 3. Select and justify an appropriate research design to investigate the research question.
- 4. Demonstrate the skills required to conduct a research project and analyse and interpret research findings.
- 5. Identify and communicate the ethical dimensions of research and demonstrate the skills and attitudes of an ethical researcher.
- 6. Use appropriate communication style and terminology to present research findings effectively in oral and written forms.

Students will have two options for final submission of their research project.

Option 1 Manuscript style presentation of research project (3,500 to 5,000 words). The manuscript should conform to the guidelines for submission for publication in a journal to be determined by the student in consultation with their supervisor.

Option 2 Conventional thesis style presentation of research project (5,000 words plus 3,000 words literature review). The thesis should include the following sections: abstract, introduction, literature review, methods, results and discussion.

Summer Vacation Scholarship (~6 units)

The purpose of the scholarships is to encourage undergraduate students to consider undertaking postgraduate study at the University of Adelaide leading to a career involving research. The scholars will work with a research team to stimulate their enthusiasm for advanced study. The scholarships are intended to provide experience in a research project conducted by one or more academic staff and are not intended to support work towards an Honours degree, or for any other course requirements.

Each scholarship provides a living allowance of at least \$200 per week for six weeks. The scholarship will last for at least six weeks during the summer vacation. Applications usually open in **July** and close in **October**. See https://scholarships.adelaide.edu.au/scholarship/ug/all/adelaide-summer-research-scholarships

MPH Thesis (24 Units)

PUB HLTH 7133A/B and 7134A/B

The Thesis offers students the opportunity to undertake a substantial and in-depth research project under the supervision of an experienced academic. This course is one where independent research is undertaken under the guidance of a supervisor, with whom the student meets weekly across two semesters (Part A and Part B).

Course Learning Outcomes

On successful completion of this course the student will be able to:

- 1 Collaborate with colleagues and supervisor(s) in the development, design and execution of a research project.
- 2 Demonstrate the skills required to conduct independent research, including the ability to obtain data, analyse data and draw inferences and make appropriate conclusions based on the analysis.
- 3 Select and use an appropriate qualitative and/or quantitative research methodology to investigate a research problem or issue relevant to Public Health.
- 4 Identify and communicate the ethical dimensions of research and demonstrate the skills and attitudes of an ethical researcher.
- 5 Use appropriate written and oral communication style and terminology to present evidence-based ideas effectively whether within a research seminar, conference presentation, or via academic writing.

Students will submit a report on their research projects including background, hypotheses, approach/methodology, results and conclusions (30,000 word limit), either in the form of a written thesis with multiple chapters, or at least two manuscripts suitable for submission to a peer-reviewed journal (between 4000 and 7,000 words depending on the author guidelines for the chosen journal).

MPH Dissertation (12 Units)

PUB HLTH 7119 and 7122 A/B

The Dissertation offers students the opportunity to undertake a substantial research project under the supervision of an experienced academic. It can be the final requirement of the MPH and should therefore reflect what the student has learned from the core and elective course work of the degree program. Unless exempted by the School of Public Health, the dissertation will take the form of a paper suitable for submission to an appropriate peer reviewed journal. The content of this paper must reflect the research topic. The successful completion of this paper fulfils the requirements for a dissertation.

Course Learning Outcomes

On successful completion of this course the student will be able to:

- 1 Critically appraise research evidence in a specific area relevant to public health.
- 2 Formulate a research question relevant to public health.
- 3 Select and justify an appropriate research design to investigate the research question.
- 4 Demonstrate the skills required to conduct a research project and analyse and interpret research findings.
- 5 Identify and communicate the ethical dimensions of research and demonstrate the skills and attitudes of an ethical researcher.
- 6 Use appropriate communication style and terminology to present research findings effectively in oral and written forms.

Students will submit an essay of 4000 words which will extend and complement the work undertaken in preparing the research proposal and a paper suitable for submission to a peer-reviewed journal (between 2,500 and 7,000 words depending on the author guidelines for the chosen journal) or, if negotiated with the course coordinator, a dissertation of between 12,000 and 15,000 words.

MPH Major Research Project (6 Units)

PUB HLTH 7153

The Major Research Project offers students the opportunity to undertake a research project under the supervision of an experienced academic. This course will provide training in research skills including planning and conducting a research project in public health, and will include a series of workshops on topics including research planning and skills, data management, oral and written presentation. Assessment will be in the form of a project report and oral presentation.

Course Learning Outcomes

On successful completion of this course the student will be able to

- 1. Demonstrate the skills required to conduct independent research, including the ability to obtain data, analyse data and draw inferences and make appropriate conclusions based on the analysis.
- 2. Identify and communicate the ethical dimensions of research and demonstrate the skills and attitudes of an ethical researcher.
- 3. Use appropriate written and oral communication style and terminology to present evidence-based ideas effectively.

Students will submit a report on their research projects including background, hypotheses, approach/methodology, results and conclusions (4000 word limit). This task will be due for submission at the end of the non-teaching week prior to examinations, in order to allow feedback from oral presentations to be incorporated. It is suggested that students prepare a draft version of the report and submit this to their supervisor prior to the oral presentation for feedback.

Dissertation - Counselling and Psychotherapy (12 Units)

PUB HLTH 7011 / PUB HLTH 7211A/B

The course aims to develop in student the capacity to work independently under the guidance of a supervisor to carry out research and to effectively communicate the need for, process of, and results of the research. Each student will develop a research proposal and a literature review, present a seminar regarding their research, and prepare an individual research dissertation that exhibits original investigation, analysis and reviewed journal, with additional supporting material.

Course Learning Outcomes

On successful completion of this course the student will be able to:

- 1 Conduct independent research including critical review of an evidence base, and formulation of a research question
- 2 Use qualitative and/or quantitative research methods to formulate a research design as appropriate for the context of the research
- 3 Identify relevant ethical aspects of a research project and ethically justifiable approaches to these
- 4 Describe and enact collaborative working relationships with key stakeholders in a research project (including but not limited to the supervisor)

5 Prepare and present an analysis of collected data using appropriate terminology and referencing

Students are required to submit a research thesis in the form of a paper suitable for submission to a peer-reviewed journal plus a candidate statement which includes a contribution statement, the instructions to authors for the targeted journal (including stipulated word limits), a short statement locating the study in the field of counselling and psychotherapy, and description of preceding work if this is part of a larger study. Subject to the targeted journal, the word count for the dissertation itself should be between 2,500 and 7,000 words.

Master of Philosophy (MPhil)

https://www.adelaide.edu.au/degree-finder/2017/hdrmaster_mphilph.html

A Master of Philosophy comprises an independent, supervised research project mutually agreed upon by the student, their supervisors and Head of School. Domestic students can choose to undertake the degree by either 100% research or, by mixed research and coursework; international students will normally proceed to the degree by mixed research and coursework.

The award of the degree for students in the 100% research stream is based entirely on the examination of a thesis, however, students in the mixed research and coursework stream complete one third of the degree (15 units) by coursework and the remaining two thirds of the degree by research resulting in the production of a proportionally smaller thesis.

The Master of Philosophy shall, in general, have the objectives of:

- training candidates in research methodology and techniques
- developing critical evaluation skills appropriate to their research topic
- training candidates in the application of such methods by conducting a specified program of research under appropriate supervision and the development of new knowledge where possible
- providing training in literature analysis
- encouraging debate in the substantive area of the thesis at an advanced level.

Master of Clinical Science (MClinSci)

http://calendar.adelaide.edu.au/aprhdr/2017/master-clinical-science

The Master of Clinical Science is conducted over two years of full time study or the equivalent in half-time candidature. The key aim of the program is to train experienced clinicians in research methodology and techniques and to engage them in the critical evaluation of literature and results in their chosen field of research at an advanced level. Whilst the Master of Clinical Science may contain a significant coursework component, the focus of the degree is on research.

The award of the degree for students in the 100% research stream is based entirely on the examination of a thesis, however, students in the mixed research and coursework stream complete one third of the degree (15 units) by coursework and the remaining two thirds of the degree by research resulting in the production of a proportionally smaller thesis. Master of Clinical Science graduates are well placed to progress to independent research at doctoral level and to translate their research training into improved clinical outcomes.

The objectives of the program are to:

- train candidates in literature analysis, research methodology and techniques
- develop critical evaluation skills appropriate to the chosen research topic
- train candidates in the application of research methods during the conduct of an independent, supervised research project mutually agreed upon by the student, their supervisors and head of School and
- facilitate the candidate's ability to translate research into improved clinical outcomes.

Doctor of Philosophy (PhD)

https://www.adelaide.edu.au/degree-finder/2017/hdrdoctor_philosophy.html

The PhD is the basic qualification for a research career or academic position. The PhD involves three-four years of research for a full-time candidate or the equivalent in half-time candidature. In the course of completing the degree under appropriate supervision, candidates develop the capacity to conduct research independently at a high level of originality and quality and make a significant original contribution to knowledge in their chosen discipline.

The candidate completes an approved program of study and research under supervision and presents a thesis embodying the results of original investigation

Epidemiology and Biostatistics

Our research

A large part of our research in the Unit is broadly focused on the health of women and children through the work of two of the School's interdisciplinary research groups: the BetterStart group led by Professor John Lynch are trying to better understand how to ensure infants and children have the best start in life that will enhance their health and development over the life course; and Life Course and Intergenerational Health Group (jointly with the Robinson Research Institute) led by Professor Vivienne Moore that focuses on health of women and children and aims to understand how inequalities in health arise, through integrated social and biological pathways and to identify opportunities for change.

Professor Lyle Palmer leads an interdisciplinary program aimed at investigating the genetic epidemiology of common, chronic disease. In particular, we are actively investigating the genetic determinants of obesity, growth in early life and childhood, and various chronic diseases – with a current focus on obstructive sleep apnea. This team is also active in the area of precision medicine, and together with clinical and engineering collaborators is leading a program of methodological and applied research in precision radiology.

Members of the Unit also conduct methodological research in biostatistics and epidemiology.

Current research projects

- > Position of women in public health initiatives and the popular media
- > Health legacy for children born to women who are overweight or obese
- > Role of modifiable structural factors in the health of families
- > Gestational age and effects of pregnancy complications on children's development
- > Television marketing of unhealthy food and beverages to children in Australia
- > Effects of poverty on cognitive ability
- > Potentially preventable hospitalisations in children
- > The genetic epidemiology of obstructive sleep apnea
- > The use of routinely collected radiologic images and linked health data to predict clinically important outcomes

The group members are:

Professor John Lynch (Unit Lead)

Associate Professor Lynne Giles

Professor Vivienne Moore Professor Lyle Palmer

Dr Angela Gialamas Dr Cathy Chittleborough

Ms Dandara Haag Ms Janet Grant

Dr Murthy Mittinty Dr Clare Hume

Ms Alicia Montgomerie Ms Helena Schuch

Dr Rhiannon Pilkington A/Prof Lisa Smithers

<u>Dr Amy Salter</u> <u>Dr Melissa Whitrow</u>

Dr Alyssa Sawyer Dr Lisa Yelland

Student Research Projects

Child care or preschool participation and Aboriginal children's cognitive and socio-emotional outcomes at school entry

Description: High quality child care has the potential to improve children's health and development. This project will examine child care or preschool participation in Aboriginal and/or Torres Strait Islander children and the association between cognitive and socioemotional outcomes at school entry.

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	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □	
Possible scope of Project	Masters 6 units □ 12 units □ 24 units ☑	
	HDR MPhil ☑ PhD □	
Pre-requisite skills/courses	Students will have completed epidemiological and/or biostatist courses, as relevant to this project.	ics
Nature of data	Quantitative, electronic.	
Source of data	Longitudinal Study of Indigenous Children (LSIC).	
External Stakeholders	Stakeholders associated with LSIC.	
Analytic techniques involved	Quantitative analyses.	
Other requirements	Familiarity with statistical software packages such as STATA. Approval to access LSIC data.	

Smoking during pregnancy

Description: Public awareness about the harms of smoking have led to declining rates of smoking. However, pregnancy can be a challenging time and some women find it difficult to quit smoking. This project involves surveying pregnant women about their attitudes to smoking in pregnancy and, if they smoke, gain a deeper understanding of the factors that might help them quit (e.g. counselling, social support, nicotine replacement therapy, incentives).

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters 6 units □ 12 units ☑ 24 units ☑ HDR MPhil □ PhD □
Pre-requisite skills/courses	Students should have excellent communication skills and professionalism as they will be required to recruit women to the study. Some skills in designing surveys, data manipulation and quantitative analysis is also advantageous.
Nature of data	Quantitative
Source of data	Collect themselves.
External Stakeholders	None.
Analytic techniques involved	Quantitative.
Other requirements	The student must be willing to travel to and spend time in a hospital (antenatal) setting.

Did a RCT involving carers of Aboriginal children alter what children eat and drink?

Description: We conducted a randomised controlled trial (RCT) that aimed to reduce early childhood caries and improve children's diets. Part of the intervention involved motivating carers to provide healthier foods and drinks to children. This project involves analysing nutrition and health-related data from the trial.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units □ 12 units ☑ HDR MPhil ☑ PhD ☑	_
Pre-requisite skills/courses	hour recalls, food frequency on nutrition analysis using softwadvantageous. Strong quanti	of collecting dietary data (e.g. 24- questionnaires), and conducting are such as Foodworks would be stative analysis skills are essential atistical software (e.g. stata) would
Nature of data	Possibly Microsoft Access ar Definitely working with database	
Source of data	RCT.	
External Stakeholders	No.	
Analytic techniques involved	Quantitative analyses.	
Other requirements		

Physical activity of 2-year-old Aboriginal children

Description: Little is known about the amount of time Aboriginal children spend on physical activity, sedentary behaviour and screen time. In this project the student will analyse data collected from a health promotion trial of 2-year-old Aboriginal children and nationally-representative data. The findings from both datasets will be compared to build a comprehensive picture of these health behaviours among Aboriginal pre-schoolers.

<u> </u>	<u> </u>
Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters 6 units □ 12 units ☑ 24 units □ HDR MPhil □ PhD □
Pre-requisite skills/courses	Strong quantitative analysis skills are essential and experience or knowledge of statistical software (e.g. stata) would be beneficial.
Nature of data	Stata dataset.
Source of data	Randomised controlled trial.
External Stakeholders	No.
Analytic techniques involved	Quantitative analyses.
Other requirements	

Child health (as measured using hospitalisations) and school achievement (as measured by NAPLAN)

Description: Educational achievement is a strongly associated with later adult health outcomes and life chances. This project will examine the association of child health (using hospitalisation records) and school achievement (measured by the National Assessment Plan in Literacy and Numeracy, NAPLAN).

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation 6 units ~□ Masters 6 units ☑ 12 units ☑ 24 units □ HDR MPhil □ PhD □
Pre-requisite skills/courses	Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.
Nature of data	Quantitative, electronic.
Source of data	Hospitalisation records and NAPLAN data within the Early Childhood Data Project.
External Stakeholders	SA Health, Department for Education & Child Development, & other relevant data custodians.
Analytic techniques involved	Quantitative analyses.
Other requirements	Familiarity with statistical software packages such as STATA.

Neonatal morbidity and child development and/or school achievement

Description: Educational achievement is a strongly associated with later adult health outcomes and life chances. This project will describe patterns of neonatal morbidity (conditions experienced in the first month of life) and the association with children's development at school entry and later school achievement.

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters 6 units □ 12 units ☑ 24 units □ HDR MPhil □ PhD □	
Pre-requisite skills/courses	Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.	
Nature of data	Quantitative, electronic.	
Source of data	Pregnancy Outcome data, hospitalisation records, Australian Early Development Census and NAPLAN data within the Early Childhood Data Project.	
External Stakeholders	SA Health, SA Department for Education & Child Development, Australian Government Department of Education and other relevant data custodians.	
Analytic techniques involved	Quantitative analyses.	
Other requirements	Familiarity with statistical software packages such as STATA.	

Systematic review of interventions to reduce child maltreatment

Description: Child maltreatment is associated with adverse outcomes for child health and development. As such, it is key to identify potential preventative interventions. This project will involve a literature review of studies evaluating interventions designed to reduce child maltreatment.

	Undergraduate Honours 18 units ☑	Summer Vacation ~6 units □
Possible scope of Project	Masters 6 units ☑ 12 units ☑	24 units □
	HDR MPhil □ PhD	
Pre-requisite skills/courses	Desirable to have skills in	critical appraisal.
Nature of data	Electronic.	
Source of data	Publicly available reports 8	& journal articles.
External Stakeholders	None	
Analytic techniques involved	Synthesis of the evidence base.	
Other requirements	Familiarity with searching	online bibliographic databases.

Understanding patterns of TV advertising to children

Description: Television advertising influences the food preferences and diets of children. This project involves understanding patterns of TV advertising during children's TV viewing hours using a large database of television advertising.

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units ☑ Masters 6 units □ 12 units ☑ 24 units ☑ HDR MPhil ☑ PhD □
Pre-requisite skills/courses	Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.
Nature of data	Quantitative, electronic.
Source of data	Television broadcasts.
External Stakeholders	None.
Analytic techniques involved	Quantitative analyses.
Other requirements	Familiarity with statistical software packages such as STATA.

Parental time investments in children: examining trends over time

Description: This project will use the 1992, 1997 and 2006 Australian Time Use surveys to quantify how much time parents spend in different activities with their children, and whether this has changed over time and changed differentially by socioeconomic group.

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	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □
Possible scope of Project	Masters 6 units □ 12 units ☑ 24 units □
	HDR MPhil □ PhD □
Pre-requisite skills/courses	Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.
Nature of data	Quantitative, electronic
Source of data	Australian Bureau of Statistics time use surveys
External Stakeholders	None
Analytic techniques involved	Quantitative analyses
Other requirements	Familiarity with statistical software packages such as STATA

Child Protection notifications and changes in policy

Description: The number of children being notified to child protection, and the total number of notifications to child protection has risen substantially over the past decades. This project will involve investigating trends in characteristics of child protection notifications since 1999, and identifying what changes in policy and practice may correspond to peaks and troughs in the trends.

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters 6 units □ 12 units □ 24 units □ HDR MPhil □ PhD □
Pre-requisite skills/courses	
Nature of data	Quantitative data, combined with literature
Source of data	The Early Childhood Data Project (linked government administrative data) and publicly available academic papers, and government and non-government reports
External Stakeholders	The Department for Child Protection, South Australian Government and other relevant data custodians.
Analytic techniques involved	Quantitative analyses.
Other requirements	Familiarity with statistical software packages such as STATA and searching online bibliographic database is desirable.

Insecure housing, child development and academic achievement

Description: Using data from the South Australian Early Childhood Data Project this research project will involve exploring the association between insecure housing early in life and health, development and academic outcomes for children.

	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □		
Possible scope of Project	Masters 6 units □ 12 units 図 24 units 図		
	HDR MPhil □ PhD □		
Pre-requisite skills/courses			
Nature of data	Quantitative, electronic.		
Source of data	The Early Childhood Data Project (linked government administrative data).		
External Stakeholders	Department for Communities and Social Inclusion, the Department for Education and Child Development and other relevant data custodians.		
Analytic techniques involved	Quantitative analyses.		
Other requirements	Familiarity with statistical software packages such as STATA is desirable.		

Descriptive analyses of potentially preventable hospitalisations among children

Description: This project will use linked hospital data to describe different types of Potentially Preventable Hospitalisations (PPHs) among children. Numerous definitions of PPH will be tested. This project can be expanded to include the nature of repeated hospitalisations, and demographic characteristics of children experiencing PPHs.

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters 6 units □ 12 units ☑ 24 units ☑ HDR MPhil ☑ PhD ☑		
Pre-requisite skills/courses	Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.		
Nature of data	Quantitative, electronic.		
Source of data	Hospitalisation records within the Early Childhood Data Project.		
External Stakeholders	SA Health & other relevant data custodians.		
Analytic techniques involved	Quantitative analyses.		
Other requirements	Familiarity with statistical software packages such as STATA.		

Genetic epidemiology of obstructive sleep apnea

Description: Investigate the genetic and/or epidemiological basis of obstructive sleep apnea using data from the Western Australian Sleep Health Study and potentially other international resources (available as part of the International Sleep Genetic Epidemiology Consortium).

	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □		
Possible scope of Project	Masters 6 units □ 12 units ☑ 24 units ☑		
	HDR MPhil ☑ PhD ☑		
Pre-requisite skills/courses	Some skills in quantitative analysis and data manipulation will be necessary. Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.		
Nature of data	Digital: epidemiological instruments, clinical measures, physiological measures, genotypes.		
Source of data	Western Australian Sleep Health Study		
External Stakeholders	Western Australian Sleep Disorders Institute		
Analytic techniques involved	Quantitative analyses		
Other requirements	Familiarity with statistical software packages. Approval to access WASHS data.		

Using new automated data visualization techniques to predict chronic diseases from routinely collected CT images

Description: Investigate the use of radiological features from thoracic CT scans performed at Royal Adelaide Hospital to predict important clinical outcomes – mortality and chronic disease incidence. A dataset of containing images and other data from over 200,000 adults is available.

Possible scope of Project	Undergraduate Honours 18 units □ Summer Vacation ~6 units □ Masters 6 units □ 12 units □ 24 units □ HDR MPhil ☑ PhD ☑			
Pre-requisite skills/courses	Some skills in quantitative analysis and data manipulation will be necessary. Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.			
Nature of data	Digital: clinical measures, radiological images, linked health data.			
Source of data	Royal Adelaide Hospital			
External Stakeholders	Members of the Deep Learning Radiology Research Team.			
Analytic techniques involved	Quantitative analyses			
Other requirements	Familiarity with statistical software packages. Approval to access RAH data.			

Systematic review of chronic disease prediction using radiomics

Description: This project will involve a literature review of studies evaluating the use of radiologic images to predict chronic disease. This project would be suitable for a group of students.

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters 6 units □ 12 units ☑ 24 units ☑ HDR MPhil □ PhD □			
Pre-requisite skills/courses	Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.			
Nature of data	Digital: journal databases.			
Source of data	Online databases			
External Stakeholders				
Analytic techniques involved	Quantitative analyses			
Other requirements				

Observational epidemiology of common chronic diseases

Description: Investigate the epidemiological basis of common chronic diseases (e.g., cancer, cardiovascular disease, respiratory disease) using data from an exceptional cohort study – the Ontario Health Study (OHS). The OHS is a population-based cohort of over 200,000 adults collected in Ontario, Canada.

	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □		
Possible scope of Project	Masters 6 units □	12 units ☑	24 units ☑
	HDR MPhil ☑	PhD ☑	
Pre-requisite skills/courses	Some skills in quantitative analysis and data manipulation will be necessary. Students will have completed epidemiological and/or biostatistics courses, as relevant to this project.		
Nature of data	Digital: epidemiological instruments, Canadian census data.		
Source of data	Ontario Health Study		
External Stakeholders	Ontario Institute for Cancer Research		
Analytic techniques involved	Quantitative analyses		
Other requirements	Familiarity with statistical software packages. Approval to access OHS data.		

Environmental and Occupational Health Sciences

Our research

We are interested in the nexus between the environment, society and human health. With diverse backgrounds in environmental and medical epidemiology, public health, occupational health physiotherapy, infectious disease, social psychology, exposure science, and statistics, we employ an array of quantitative and qualitative methodologies and work closely with government and non-government stakeholders. We provide an empirical evidence base for strategic policy development and planning on public health issues and have close collaborative relationships with public health and infectious disease specialists in China.

- > Assessment and control of health hazards in workplaces and environment including hazardous chemical management
- > Building adaptation and resilience to environmental and climatic hazards
- > Community responses to extreme heat events
- > Prevention of work-related musculoskeletal disorders

Current research projects

- > Infectious disease in China as a consequence of climate change
- > Health impacts of extreme heat and climate change in rural South Australia
- > Food handling practices during hot weather
- > Prevention of work-related musculoskeletal injuries in aged-care workers
- > Testing for chemical absorption in skin
- > Health risk evaluation for rodenticide preparation on farms
- > Cytotoxic drug surface contamination

The group members are:

Prof Dino Pisaniello

Prof Peng Bi

Dr Sharyn Gaskin

Dr Alana Hansen

Dr Scott Hanson-Easey

Ms Adriana Milazzo

Dr Paul Rothmore (Unit Lead)

Dr Susan Williams

Dr Jianjun Xiang

Staff of the Occupational and Environmental Hygiene Laboratory at Thebarton

Student Research Projects

Development of an analytical technique for MOCA in biological samples.

Description: 4,4'-Methylene bis(2-chloroaniline) (MOCA) is a chemical used in manufacturing of polyurethane products. MOCA is classified as an A2, Suspected Human Carcinogen and has the potential to be absorbed through the skin. Health monitoring for MOCA is required under work health and safety laws. This project is laboratory based and will involve development of an analytical method for the detection of MOCA in biological samples. Occupational exposure to MOCA in industry is ideally assessed by biological monitoring to identify individuals with an absorbed dose.

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters 6 units □ 12 units □ 24 units □ HDR MPhil □ PhD □		
Pre-requisite skills/courses	Analytical chemistry		
Nature of data	Laboratory chemical analysis		
Source of data	Laboratory chemical analysis		
External Stakeholders	Occupational Hygiene		
Analytic techniques involved	Laboratory chemical analysis		
Other requirements	Analytical chemistry and/or toxicology desirable		

Emergency management of chemical exposure incidents affecting public health

Description: Accidental or intentional toxic chemical releases may result in significant public health and psychological consequences. Management of exposed individuals during hazardous material (HAZMAT) incidents should be risk-based and supported by suitable scientific evidence base. The most serious hazard is from exposure to gases or vapours via the respiratory system. Dermal exposure, as an important secondary route of exposure, is still a concern most acutely for the unprotected public. This project is aligned with a program of work and involves selected literature reviews, the identification of knowledge gaps and the recommendation of a framework, protocols and experimental arrangements for subsequent work for a selected range of toxic gases that may be encountered in a HAZMAT scenario involving the public.

	Undergraduate Honours 18 units ☑	Summer Vacat	ion ~6 units	Ø
Possible scope of Project	Masters 6 units ☑	12 units ☑	24 units □	
	HDR MPhil □	PhD □		
Pre-requisite skills/courses				
Nature of data	Published scientific literature, HAZMAT incident reports			
Source of data	Internet, databases			
External Stakeholders	Emergency Services (MFS, CFS, Ambulance)			
Analytic techniques involved	Literature searching, engagement with Fire Services and other emergency services			
Other requirements	Some chemistry and/or toxicology preferred			

The visual working environment: issues relating to eye health

Description: We are part of the International Commission of Occupational Health – Scientific Committee on Work and Vision. This project is aligned with a program of work assessing visual tasks in the work environment, and the potential impact on eye health. It will explore the use of screens and other equipment in the workplace, as well as individual susceptibilities to eye health disturbance. The project will involve selected literature reviews and field work assessing the visual working environment.

Possible scope of	Undergraduate Honours 18 units ☑ Masters	Summer Vaca	ation ~6 units	
Project Scope of	6 units ☑	12 units ☑	24 units □	
	HDR MPhil □	PhD □		
Pre-requisite skills/courses				
Nature of data	Published scientific literature, fieldwork observational/survey, workplace measurements			
Source of data	Internet, databases, fieldwork			
External Stakeholders				
Analytic techniques involved	Literature searching, analysis of observation/survey data, monitoring equipment data interpretation			
Other requirements	Toxicology/Physiology preferred			

Ambulance and ED visit Costs of Heatwaves and Benefits of a Heat Health Intervention

Description: Heatwaves are associated with a significant and preventable health burden in Australia, which will escalate with climate change. Public health warnings and interventions are being implemented to raise awareness and minimise the health impacts. However, there is currently no evidence of the cost effectiveness of these interventions, nor any comprehensive analysis of the cost of heatwaves to the health system. This project will address this evidence gap. With 1.5–3°C warming 'locked in' over the coming decades, it is imperative that cost-effective interventions to minimise the health impacts of heatwaves be adopted nationally.

This project will use the National Hospital Cost Data Collection, state hospital Emergency department visits, ambulance usages and climate data to:

- 1. Estimate annual heat-attributable hospital ED visits and Ambulance usage costs in Adelaide, and may project future costs under different scenarios of climatic and demographic change.
- 2. Conduct a cost analysis of a public health heatwave intervention implemented in Adelaide in 2014. Heatwave-attributable hospital ED and ambulance costs will be estimated for two comparable heatwaves: in 2009 (pre-intervention) and 2014 (post-intervention). The intervention costs will be estimated in consultation with the relevant agencies. The difference between the estimated intervention cost and the difference in the excess costs associated with the heat events in 2009 and 2014 will inform a cost analysis of the heatwave intervention.

Possible scope of	Undergraduate Honours 18 uni Masters		Summer Vacation ~6 units	
Project		12 units	24 units □	
	HDR MPhil □	PhD [
Pre-requisite skills/courses				
Nature of data				
Source of data				
External Stakeholders				
Analytic techniques involved	Data analytic sk	kills		
Other requirements				

Indoor air pollution from 3D printers

Description: 3D printers are becoming ubiquitous in schools, universities and industry (additive manufacturing). These printers are cost-effective for rapid and specialised fabrication. There is a wide variety of applications ranging from synthetic skin, medical implants and devices, architectural prototypes etc. Many different 3D systems exist and potentially emit toxic particles and vapours, especially in large scale or open printers. There is a need to understand the indoor air contaminant levels, especially in terms of time and space. The research findings will assist in the evaluation and design of ventilation systems and other forms of control. The project will entail a literature review and measurements in 3D printing labs in the University, and potentially in secondary schools.

	T				
Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units ☑ HDR MPhil ☑	Summer Vacation 12 units ⊠ PhD □	on ~6 units □ 24 units □		
Pre-requisite skills/courses	Knowledge of literature review methods and basic chemistry (at least year 12)				
Nature of data	Scientific literature and empirical data				
Source of data	Bibliographic and full text databases, air contaminant measurements in 3D printing suites				
External Stakeholders	School of Electrical and Electronic Engineering; SA Department for Education and Child Development.				
Analytic techniques involved	Various handheld instruments, including laser particle counter, condensation nuclei counter and other air sampling instruments for particles and vapours. Basic descriptive and analytical statistics.				
Other requirements	Laboratory experience desirable.				

Mapping contaminated land sites and reproductive health outcomes

Description: Following the Clovelly Park soil contamination incident, there is increasing public concern about health effects that might arise from contaminated land and groundwater, arising from past or current industrial activities. Exposures from indoor vapour intrusion can lead to a range of adverse health outcomes. It is now evident that the highest exposures can occur when people are asleep in their homes. There is evidence of increased foetal heart malformations in selective US populations. Heart defects constitute a significant proportion of birth defects. There is no information for Australia.

The project will explore data from birth defect registries and geocoded contaminated site databases.

	T			
	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units		on ∼6 units □	
Possible scope of	Masters			
Project	6 units □	12 units 🗵	24 units 🛚	
	HDR			
	MPhil ⊠	PhD □		
Pre-requisite skills/courses	Epidemiological and statistical skills			
Nature of data	Routinely collected data from SA Health and EPA			
Source of data	Birth defects register, perinatal datasets and site contamination register.			
External Stakeholders	SA Health, SA EPA			
Analytic techniques involved	Spatial mapping and analytical statistics			
Other requirements				

Do Australian schools have a heatwave policy, and is there a need for a national one?

Description: This project will review school hot weather policies to assess the type of guidelines in place to protect students from outdoor extreme weather events. The information gathered will be used to assess the level of consistency among school guidelines, internationally, nationally and locally, and will provide recommendations for the need of a national school policy on heatwaves.

	Undergraduate		
Possible scope of Project	Honours 18 units ☑ Summer Vacation ~6 units □		
	Masters		
	6 units □ 12 units □ 24 units □		
	HDR		
	MPhil □ PhD □		
Pre-requisite skills/courses	Qualitative and quantitative		
Nature of data	Policy data, literature review		
Source of data	Publicly available school/education department policies, possible conduct of interviews or surveys		
External Stakeholders	SA Health, Department for Education & Child Development		
Analytic techniques involved	Literature searching, retrospective review of school policy data, data extraction and analysis, narrative synthesis, and descriptive statistics		
Other requirements			

Health Economics and Policy

Our research

We focus on key issues in developing evidence-based health policy, health system planning and health care resource allocation. Our projects have large scale impact. Our research generates the evidence and analyses needed to determine how health services and workforces ought to be planned, and whether governments ought to allow and reimburse the use of particular health interventions. This includes evidence on interventions' comparative safety, effectiveness and cost effectiveness, and analyses of anticipated impacts and ethical implications.

We work across disciplines, with our academic backgrounds spanning public health, health economics, medicine, moral philosophy, psychology, epidemiology and biostatistics, pharmacy, health sciences, geography and social sciences.

Current research projects

- > Methodological projects concerning the development and use of evidence by policy makers
- > Involving patients in health technology funding decisions in Australia
- > Assessing personalised medicines in Australia
- > The ethics of allocating intensive care resources
- > Estimating the future workforce needs in Australian general practices
- > Alcohol misuse primary care intervention referrals in young people
- > Access to health services including unmet need

The group members are:

Professor Jon Karnon

Professor Tracy Merlin (Unit Lead)

Associate Professor Caroline Laurence

Dr Hossein Afzali

Dr Drew Carter

Dr Laura Edney

Ms Jodi Gray

Dr Elizabeth Hoon

Ms Clarabelle Pham

Dr Shuhong Wang

Staff of our large contract research centre:

Adelaide Health Technology Assessment (AHTA)

Student Research Projects

Evidence-Based Decision Making in Primary Health Networks

Description: In 2015 the Commonwealth established 31 geographically defined Primary Health Networks (PHNs) across Australia to increase the efficiency and effectiveness of medical services for patients and to improve coordination of care to ensure patients receive the right care in the right place at the right time. To achieve these aims, PHNs begin by developing a needs assessment for their geographical area to identify a set of key health priority areas. They then design services to meet these needs, commission these services to external partners and work with these partners to monitor and evaluate services for continued improvement.

As part of this research you will be working closely with the two South Australian (SA) PHNs – Adelaide PHN and County SA PHN to document and contribute to their current processes from needs assessment through to monitoring and evaluation. The specific activities to be undertaken will vary according to your own area of expertise and/or interest. Documenting their current processes might include:

- 1. Compiling existing online resources,
- 2. Qualitative interviews with PHN employees, their external partners and their key stakeholders such as community groups and general practitioners, and
- 3. The development of quantitative research tools such as online surveys to target a larger sample of participants across multiple PHNs.

Contributing to their current processes might include:

- 1. Accessing updated secondary quantitative and qualitative data to inform the next iteration of their needs assessment,
- 2. Performing a literature review of service options to meet each of their identified key priority need areas,
- 3. Developing a standardised method for PHNs to employ when designing service interventions and to guide their monitoring and evaluation activities, and
- 4. Qualitative and/or quantitative assessment of the practical utility of the standardised methods developed.

This research will provide you with research experience in a university setting and practical experience working with local government health service providers and their key stakeholders.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units ☑ 12 units ☑ HDR MPhil □ PhD		
Pre-requisite skills/courses			
Nature of data	Qualitative and/or quantitative		
Source of data	Online databases; interviews; surveys		
External Stakeholders	Adelaide PHN and Country SA PHN		
Analytic techniques involved	TBD		
Other requirements			

Understanding community perceptions toward health care funding decisions

Description: Healthcare systems are faced with allocating constrained health budgets across increasingly costly health interventions. Funding only health interventions that generate greater benefits than the opportunity cost of funding decisions is one way to contribute towards improving population health from a constrained budget. Empirical estimates of the average opportunity cost of funding decisions have been recently estimated for the UK and Australia; however, their ability to maximise population health under a constrained budget is dependent on their use in health funding decision-making.

Health funding decision makers have cited that a key barrier to the use of the average opportunity cost is the perceived negative community response. To date, limited research has examined community attitudes toward the use of the average opportunity cost to guide funding decisions. This may be due to the prior lack of evidence on the value of the average opportunity cost, and the complexities of communicating such concepts to the general public. It is unknown whether the community accept the use of the average opportunity cost to guide funding decisions.

We have developed a video to communicate these complex concepts and an online survey to collect individual responses on attitudes towards the use of the average opportunity cost to guide health funding decisions. Survey respondents further indicated whether they would be willing to discuss their responses in detail with a researcher to further explore their responses. This research project will involve conducting and analysing these qualitative interviews.

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units ☑ Masters 6 units ☑ 12 units ☑ 24 units ☑ HDR MPhil □ PhD □				
Pre-requisite skills/courses	NA				
Nature of data	Qualitative				
Source of data	Interviews				
External Stakeholders	NA				
Analytic techniques involved	Qualitative research methodology				
Other requirements	NA				

Unmet Clinical Need: What is it and what can we do about it?

Description: The public healthcare budget will never be large enough to meet all of the clinical needs of the population, but we need to describe the extent and distribution of unmet need so that policymakers can make informed decisions about where to allocate our scarce resources. Should we spend \$10 million on a new cancer drug or should we reduce waiting lists for joint replacements or cataracts operations? Depending on the size, this research project will comprise one or more of the following activities: review the existing literature on unmet clinical need, identify and analyse relevant survey data, analyse hospital waiting list and activity data, interview stakeholders (GPs and hospital-based clinicians, managers, consumers, politicians) and design and conduct primary surveys to assess barriers and facilitators to reducing unmet need (e.g. workforce and other capacity constraints, organisational and political issues), review the literature and consider methodological issues around the cost-effectiveness analysis of reducing unmet clinical need (e.g. reducing waiting lists), undertake relevant cost-effectiveness analyses and develop implementation plans. The focus of the project may be broad (e.g. looking at unmet need across diseases or conditions across the healthcare system) or narrow (e.g. focussing on issues around unmet need for a particular disease or condition in a particular jurisdiction).

Possible scope of	Undergraduate Honours 18 units □ Summer Vacation ~6 units □ Masters				
Project	6 units	12 uni	ts ☑	24 units ☑	
	HDR MPhil ☑	PhD E	Z		
Pre-requisite skills/courses	Health economics	Health economics			
Nature of data	Routinely collected hospital data, longitudinal and cross-sectional survey data, qualitative data				
Source of data	Hospitals, surveys, interviews				
External Stakeholders	Local clinicians and consumers				
Analytic techniques involved	Quantitative or qualitative research methods				
Other requirements	Health economics an	d decis	on making, Bio	ostatistics	

Patterns and determinants of GP utilisation in Australia

Description: In Australia there is an increasing demand for GPs services, with GP attendances rising by 42% between 20003 and 2014. In terms of cost and service provision this is unsustainable, but many of the policies implemented to address this rising demand are often broad brushed and inequitable. What is lacking is a better understanding of what drives this demand within the Australian population. This project is aimed at understanding the patterns and determinants of health care utilisation, focusing on primary care services. It will use panel data from the HILDA to determine which predisposing, enabling and need characteristics are determinants of utilisation of GP services.

	Undergraduate Honours 18 units □	Summer V	Summer Vacation ~6 units □	
Possible scope of Project	Masters 6 units □	12 units ☑	24 units ☑	
	HDR MPhil ☑	PhD □		
Pre-requisite skills/courses	Introduction to Biostatistics or basic statistical course			
Nature of data	HILDA Longitudinal survey data			
Source of data	University of Melbourne			
External Stakeholders	n/a			
Analytic techniques involved	Mulitvariable analysis			
Other requirements				

Public and private healthcare spending as determinants of population health: Panel data evidence from Australia

Description: Government healthcare expenditure aims to improve health outcomes and reduce inequity through the provision and allocation of health technologies and services. Increased healthcare expenditure should, all else being equal, translate to improved health outcomes. However, the empirical relationship between healthcare expenditure and population health is not well understood in Australia. This project will involve establishing a panel dataset across several decades by States and Territories, including information on healthcare expenditure, healthcare outcomes and additional covariates such as government spending in other areas, population size, lifestyle factors such as alcohol and cigarette consumption and health status variables such as diabetes prevalence. This dataset will allow empirical estimation of the relationship between healthcare expenditure and population health.

	Undergraduate Honours 18 units □	Summer Vac	ation ~6 units	
Possible scope of Project	Masters 6 units □	12 units ☑	24 units ☑	
	HDR MPhil □	PhD □		
Pre-requisite skills/courses	experience with collating data from websites; some experience with data management; competency with statistical methods			
Nature of data	quantitative, panel			
Source of data	publicly available national datasets			
External Stakeholders	NA			
Analytic techniques involved				
Other requirements				

Comparing methods of Health Technology Assessment in Australia: MSAC and PBAC

Description: Public funding decisions for new healthcare technologies are made by two key committees in Australia, the Medical Services Advisory Committee (MSAC) and the Pharmaceutical Benefits Advisory Committee (PBAC). Differences in the methods and processes for evaluating new technologies by these two committees and how these may impact on healthcare efficiency and resource allocation have not previously been systematically investigated. This project will involve reviewing MSAC and PBAC guidelines and extracting key information such as remit and scope, process of assessment, methods of evaluation and appraisal of evidence into a database. Comparison of the similarities and differences between methods used can then be detailed. Any differences identified will be further explored with MSAC and PBAC members via survey or interview methodology.

	Undergraduate Honours 18 units □	Summer Vaca □	tion ~6 units	
Possible scope of Project	Masters 6 units □	12 units ☑	24 units ☑	
	HDR MPhil □	PhD □		
Pre-requisite skills/courses	experience with extracting information from websites; interest in survey design or interview methodologies			
Nature of data	qualitative			
Source of data	MSAC and PBAC websites; personal interviews/survey			
External Stakeholders	NA			
Analytic techniques involved				

GRADE: is the application of the method consistent with the aim?

Description: The Grading of Recommendations Assessment, Development and Evaluation (GRADE) working group began in the year 2000 as an informal collaboration of people with an interest in addressing the shortcomings of evidence grading systems in health care. The working group developed an approach to grading quality (or certainty) of evidence and strength of guideline recommendations based on that evidence. The aim was for the approach to be 'common, sensible and transparent'. Many international organisations have provided input into the development of the GRADE approach which is now considered the standard in evidence synthesis. Evaluations of the GRADE approach have been limited to date. There are anecdotal concerns that when the approach is used by different organisations that the method is applied differently, and so that what may appear 'common' or 'universal' is in fact not common at all.

This research project would be aimed at determining whether the GRADE approach that has been developed, when applied in clinical practice guideline development and in health technology assessment, is in fact standardly applied by different organisations ie 'common, sensible and transparent'.

	Undergraduate Honours 18 units □ Summer Vacation ~6 units □				
Possible scope of Project	Masters 6 units □	12 units □	24 units ☑		
	HDR MPhil ☑	PhD □			
Pre-requisite skills/courses	One or more of: Epidemiological research methods, Introduction to biostatistics, Health Technology Assessment				
Nature of data	Qualitative and quantitative				
Source of data	Publicly available clinical practice guidelines, systematic reviews and health technology assessments				
External Stakeholders	NA				
Analytic techniques involved	Critical appraisal and synthesis, development and use of a GRADE approach reference case				
Other requirements					

Tailoring health technology assessments to inform policy decisions

Description: Health technology assessment is the science of evaluating health interventions to inform health policy - this includes making decisions on whether new health interventions should be available in the health system and whether they should be publicly funded. Health technology assessments (HTAs) come in all shapes and sizes in terms of the information that is included and the rigour with which they are developed – some are rapid reviews, some are mini-HTAs, some are full HTA reports and there are various shades of product type that fall between these categories.

What is not clearly understood or recognised are the risks associated with applying the incorrect analysis (product type) to the policy question. One form of HTA – the rapid review – has been gaining prominence in recent years. Many policy makers like the timeliness of the information provided by a rapid review but there are concerns that the information may, at times, be misleading because it has not been comprehensively or systematically acquired.

Clear guidance is needed on whether (and when) it is acceptable to use specific HTA product types to inform health policy.

This project aims to provide the evidence to support the development of this guidance.

This could include comparing the findings of full HTA reports with findings from rapid reviews (or other HTA product types) on the same topic and comparing the impacts on decision-making.

	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □		acation ~6 units □	
Possible scope of Project	Masters 6 units □	12 units ☑	24 units ☑	
	HDR MPhil ☑	PhD ☑		
Pre-requisite skills/courses	Previous exposure to Health Technology Assessment would be an advantage			
Nature of data	Qualitative and quantitative			
Source of data	Publicly available health technology assessments and policies, conduct of interviews or surveys			
External Stakeholders	International Network of Agencies for Health Technology Assessment			
Analytic techniques involved	Critical appraisal and synthesis, retrospective review of health technology assessment and policy development, interviews and surveys			
Other requirements				

When does the use of 'Real World Evidence' become an impediment to decision making?

Description: Health technology assessment (HTA) involves providing information to policy makers so that they can make decisions on whether new medicines and medical services should be made available to patients. Large pharmaceutical companies and other industry organisations have been insistent that 'real world evidence' (observational evidence not obtained through randomised controlled trials) should be used to inform health policy decisions and, in fact, may be more useful than evidence obtained from randomised controlled trials.

This project aims to investigate whether this 'Real World Evidence' agenda is affecting the decisions made by government about the funding of new medicines. You would attempt to answer the following questions:

- 1. Has the ratio of 'real world evidence' to randomised controlled trial evidence in funding submissions by the pharmaceutical industry changed over the last 10-15 years?
- 2. Has the level of decision-making uncertainty increased over the same period of time?
- 3. Has there been an increase in the number of resubmissions for funding over the same period of time?

The project would use decision-making by the Pharmaceutical Benefits Advisory Committee as a case study.

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	Undergraduate Honours 18 units ☑	Summer Vacation ~6 units □	
Possible scope of Project	Masters		
	6 units □	12 units □	24 units □
	HDR		
	MPhil □	PhD □	
Pre-requisite skills/courses	Understanding of study designs would be an advantage but is not a necessity		
Nature of data	Qualitative and quantitative		
Source of data	Public summary documents on health technology assessment decision-making		
External Stakeholders			
Analytic techniques involved	Literature review, data extraction and statistical analysis, critical appraisal and narrative synthesis.		
Other requirements (any desirable skills)			

Health technologies funded by SA Health: post-approval outcomes assessment

Description: SA Health convenes a number of panels and committees that make recommendations on the clinical role and availability of new medicines and medical devices in the public health system. There is increasing interest within SA Health and among its clinicians to undertake evaluation work to see if the approval and funding of a medicine or device has resulted in the outcomes expected.

This is a wonderful opportunity to help design and establish outcome assessment processes to support enhanced practice and policy development. You will gain insight into systems of approving medicines and devices for use within the public sector. This project sits within the field of health technology assessment (HTA) and related policy.

Under supervision, you will examine the data sources available to SA Health to answer key questions, such as the following. Were the indications for the new technology/medicine followed? Did the right cohort of patients receive the technology/medicine? Were the patients' health outcomes as expected? Did this represent value for money? You will then collate and analyse the available data to answer these questions, and contribute to advice on future outcomes assessment.

The project is best suited as a six-month research project, but can be adapted to your research timeline and knowledge. For example, a small part of the research can be undertaken as a six-week research project, or additional elements can be added for a Higher Degree by Research.

There are multiple projects available. One medicine which could be evaluated is in the specialty of haematology. The medicine has been approved for funding for one year, with a review to occur afterwards. Your evaluation work will contribute to this review. This resembles a 'coverage with evidence development' arrangement. Other projects are possible in cardiology, for example. Confidentiality arrangements would need to be in place, though publication would be possible with appropriate ethics approval.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units □ HDR MPhil ☑	Summer Vacati 12 units ☑ PhD ☑	on ~6 units 24 units ⊠			
Pre-requisite skills/courses	Familiarity with health required.	Familiarity with health technology assessment is desirable but not				
Nature of data	Quantitative data on health outcomes and costs, e.g. blood products used, number of transfusions, number of appointments. For a larger project, it would be possible to conduct surveys or qualitative research.					
Source of data	SA Health databases and documents, e.g. forms filled in by clinicians to access a new medicine or device					
External Stakeholders	SA Health policymakers and clinicians					
Analytic techniques involved	One or more of the following: policy analysis; health outcomes evaluation; cost-effectiveness analysis; in-depth interviews; surveys					
Other requirements						

Ethical principles guiding resource allocation in intensive care units

Description: A shortage of beds or staff in intensive care units (ICUs) often leaves practitioners and administrators with difficult decisions regarding how limited resources should be allocated. For example, if the ICU is full but a new patient requires admission, what should happen? Should the least sick patient be discharged prematurely to make way for the new patient, if the new patient can benefit more? Or should the new patient be cared for outside of the ICU, perhaps being transferred to another hospital? In either case, someone will receive less than optimal care.

Formal guidance has been issued on the question of who this should be, namely by professional and government bodies, but consideration of what the main messages are or how consistent they are across the world is lacking. We are conducting a systematic review of recommendations regarding ICU admission and discharge. (The body of literature has been identified; full texts can now be reviewed, then data can be extracted and synthesised.) Our review will help decision makers – both in ICUs and at policy levels – by providing a global picture of the guidance offered. It will also help to advance debates about what the most ethical guidance is.

Depending on the scope of the project, the student could contribute to the systematic review and/or conduct further inquiry into the ethics of ICU resource allocation. At MPhil and PhD levels, this could include conducting interviews with ICU practitioners and deliberative forums (similar to focus groups) with members of the public.

	1			
	Undergraduate			
	Honours 18 units □	Summ	er Vacation ∼6 units □	
Possible scope of Project	Masters 6 units ☑ 12 units ☑ 24 units ☑		24 units ☑	
	HDR MPhil ☑	PhD ☑		
Pre-requisite skills/courses	Familiarity with systematic reviews			
Nature of data	Policy documents and position statements			
Source of data	Published and grey literature that has already been identified			
External Stakeholders	ICU practitioners. We have research collaborations with clinicians at the Royal Adelaide Hospital and a health law scholar at Queensland University of Technology.			
Analytic techniques	Thematic analysis			
Other requirements	Familiarity with qualitative research methods and with concepts and theories in ethics and health economics			

Social and Behavioural Health Sciences

Our research

Our research focuses on how communities respond to and participate in healthcare, with particular emphasis on public health issues. We aim to ensure that the views and experiences of community members, including citizens, patients, consumers and stakeholders, are included in health research, policy and service delivery. We use a variety of research methods, including qualitative, quantitative and deliberative methods often through an ethical lens or with a critical stance. We collaborate widely, with other staff of the School and more broadly with researchers, clinicians and policy makers in SAHMRI, the Women's and Children's Health Network, SA Health, Cancer Council Australia, the Northern Adelaide Local Health Network, and others. We also do methodological research, particularly in community engagement and deliberative methods and a number of SBHSU members are part of the CIPHER research group. Our research covers the following areas:

- > Health promotion and public understanding of science
- > Primary health care and chronic disease and risk management
- > Counselling and psychotherapy
- > Health care policy
- > Health systems and services
- > International health
- > Community engagement (Indigenous and non-Indigenous)
- > End of life care

Current and recent research projects

- > Review of maternal deaths in Indonesia
- > Snakebite prevention in Myanmar
- > Healthy Laws and Health Views obesity regulation and laws to prevent childhood obesity in non-Indigenous and Indigenous children
- > Community engagement in Health Technology Assessment
- > Alcohol causes cancer!
- > CREATE Centre for Research Excellence in Aboriginal Chronic Disease Knowledge Translation and Exchange
- > STARSS vaccination surveillance study (Stimulated Telephone-Assisted Rapid Safety Surveillance)
- > Investigating the inclusion of vulnerable populations in Advance Care Planning: Developing complex and sensitive public policy

The group members are:

Prof Annette Braunack-Mayer

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Student Research Projects

Ethics in the news

Description: The media both shapes and reflects public opinion, sometimes drawing public attention to matters that have moral or ethical significance. This is often raised in the context of an alleged breach of some ethical code, or behaviour that appears to deviate from that expected of persons in the public arena. However, the invocation of an ethical lens can also serve other interests, and some ethicists have noted a 'commodification of ethics.' Little is known however about what issues or topics are deemed to have ethical import, and how these are depicted within the media. This project involves accessing, coding, and analysing print and/or online media reports that feature 'ethics.'

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units ☑ HDR MPhil □	Summer Vacat 12 units ☑ PhD □	ion ~6 units □ 24 units □	
Pre-requisite skills/courses	For masters or honours level projects, completion of or enrolment in Qualitative Research Method in Health; For other undergraduate, Social Foundations of Health			
Nature of data	Print or online (social media)			
Source of data	FACTIVA or internet			
External Stakeholders	None			
Analytic techniques involved	Thematic qualitative analysis; descriptive statistics			
Other requirements				

The prevalence and modalities of expressive therapists working in aged care in Australia

Description: Utilising expressive and creative therapies in aged care settings in a growing area of practice. However, there is little information regarding an established or coherent approach to practice with this client group. Additionally there is limited data available regarding the number of ANZATA /ACATA / PACFA registered arts therapists that work with this population. This research could explore which creative modality individual counsellors utilise when working with aged-care clients, together with collating information about registered therapists who work in this field.

	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □			
Possible scope of Project	Masters 6 units ☑	12 units ☑	24 units □	
	HDR MPhil □	PhD □		
Pre-requisite skills/courses	For masters or honours level projects, completion of or enrolment in Qualitative Research Method in Health; for other undergraduate, Social Foundations of Health			
Nature of data	Qualitative, quantitative, or mixed.			
Source of data	internet, self-report surveys from practitioners, data from peak bodies, interview data.			
External Stakeholders	ANZATA / ACATA / PACFA			
Analytic techniques involved	Thematic qualitative analysis; descriptive statistics			
Other requirements				

Public perceptions of counselling and counsellors in an Australian setting.

Description: There is a significant shortage of qualified practitioners to provide the mental health care services required to meet an increasing need within the Australian public. Currently, counsellors and psychotherapists are not included among allied health professionals receiving government funding to provide this care. In part, this may be due to a general lack of recognition or clarity about counsellors and psychotherapists and/or counselling and psychotherapy as professions. The news media is an important source of public information about health, both reflecting and shaping public opinion, social norms, and public policy. There is no current academic literature about how counsellors/psychotherapists and counselling/psychotherapy are depicted or represented within the Australian media. As the School of Public Health offers an accredited Master of Counselling and Psychotherapy degree, understanding public perceptions and representations of these entities may help to identify challenges, and gaps to be addressed to promote the value of and need for counselling/psychotherapy services within Australia. This project involves accessing coding, and analysing print or online media reports.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units ☑ HDR MPhil □	Summer Vacati 12 units ☑ PhD □	tion ~6 units □ 24 units □
Pre-requisite skills/courses	For masters or honours level projects, completion of or enrolment in Qualitative Research Method in Health; for other undergraduate, Social Foundations of Health		
Nature of data	Print or online (social media)		
Source of data	FACTIVA or internet		
External Stakeholders	None		
Analytic techniques involved	Thematic qualitative analysis; descriptive statistics		
Other requirements			

Case studies in best practice in Aboriginal and Torres Strait Islander health

Description: Most service delivery models are designed for use in mainstream services. Rarely do they capture the unique features and benefits offered by Aboriginal Community Controlled Health Organisations. In response to the need to continually improve healthcare delivery and health outcomes, researchers, managers and clinicians working in Aboriginal Community Controlled Health Organisation have developed new service delivery models which articulate the ways in which health services could or should be provided. The intention is to define and describe the essential service components and explain the relationships these components have with each other, within real world settings.

The Centre of Excellence in Aboriginal Chronic Disease Knowledge Translation and Exchange (CREATE) aims to identify the key principles which underpin best practice in Aboriginal Community Controlled Health Organisations (ACCHOs). These principles will be incorporated into a Best Practice Aboriginal Community Controlled Health Organisation Framework which could be used by services to demonstrate their unique values and advocate for improved resources and better policies, understand how other Aboriginal Community Controlled Health Organisation are implementing the identified principles and where appropriate develop their own contextually specific best practice service delivery models.

CREATE is seeking students who may be interested in contributing to our case studies on best practice in ACCHOs. Interested students would be supervised by a CREATE researcher in the analysis and presentation of case study findings. There is potential for students to work in pairs or groups.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units ☑ HDR	12 units ☑ 24 units ☑	
	MPhil 🗆	PhD 🗆	
Pre-requisite skills/courses			
Nature of data	Qualitative in-depth interviews, documents and participant observation		
Source of data	Case studies in ACCHOs		
External Stakeholders	Wardliparingga Aboriginal Health Unit, SAHMRI		
Analytic techniques involved	Qualitative data analysis skills		
Other requirements	Appreciation of Abori	ginal and Torres Str	ait Islander cultures.

Understanding community perceptions toward health care funding decisions

Description: Healthcare systems are faced with allocating constrained health budgets across increasingly costly health interventions. Funding only health interventions that generate greater benefits than the opportunity cost of funding decisions is one way to contribute towards improving population health from a constrained budget. Empirical estimates of the average opportunity cost of funding decisions have been recently estimated for the UK and Australia; however, their ability to maximise population health under a constrained budget is dependent on their use in health funding decision-making.

Health funding decision makers have cited that a key barrier to the use of the average opportunity cost is the perceived negative community response. To date, limited research has examined community attitudes toward the use of the average opportunity cost to guide funding decisions. This may be due to the prior lack of evidence on the value of the average opportunity cost, and the complexities of communicating such concepts to the general public. It is unknown whether the community accept the use of the average opportunity cost to guide funding decisions.

We have developed a video to communicate these complex concepts and an online survey to collect individual responses on attitudes towards the use of the average opportunity cost to guide health funding decisions. Survey respondents further indicated whether they would be willing to discuss their responses in detail with a researcher to further explore their responses. This research project will involve conducting and analysing these qualitative interviews.

	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units ☑		
Possible scope of Project	Masters 6 units ☑ 12 units ☑ 24 units ☑ HDR MPhil □ PhD □		
Pre-requisite skills/courses	NA		
Nature of data	Qualitative		
Source of data	Interviews		
External Stakeholders	NA		
Analytic techniques involved	Qualitative research methodology		
Other requirements	NA		

Auditing obesogenic environments

Description: The Alberta Nutrition Report Card (https://powerupforhealth.ca/albertas-2016-nutrition-report-card-on-food-environments-for-children-and-youth/) sets out a range of policy-relevant benchmarks that gauge the state of children's food environments. Some of these we already have information on in South Australia. For example, corresponding to indicator 5 in the report card, Coffee et al (2016) recently reported on the fast food exposure around schools in urban Adelaide and we are currently investigating school canteen food and beverage nutritional quality. However, there are other pieces of work which could support reporting on elements of the report card, including examining existing tools for evaluating food environments. Possible projects include:

- a. An audit of food served and eaten in kindergartens and childcare settings
- b. An audit of hospital cafes and canteens
- c. An audit of food served in recreation facilities e.g. swimming pool food outlets.
- d. An audit of food sold on university and college campuses in Adelaide including in vending machines
- e. An audit of advertising on vending machines and/or public transport (incl. bus shelters).
- f. An audit of sponsorship of public events in Adelaide e.g. corporate cup at University of Adelaide is funded by an 'energy drink' supplier and a beer supplier.
- g. An audit of sugar content of foods labelled for children aged under 5 and sold in South Australian supermarkets and whether they have the voluntary star rating on them. (e.g. ACCC in 2016 took Heinz to court over its Little Kids Shredz products because they were 70% sugar but only because the Obesity Coalition made a complaint)
- h. An audit of child menu items in cafes and food outlets

Alternatively the focus may be on the physical environment with an audit of access to/density of: play equipment, outdoor exercise areas, swimming pools etc. in low versus high socioeconomic status areas.

Possible scope of Project	Undergraduate Honours 18 units ☒ Masters 6 units ☒ HDR MPhil ☒	Summer Va 12 units ☒ PhD ☒	cation ~6 units ⊠ 24 units ⊠
Pre-requisite skills/courses	Some skills with Exc	el may be helpful	
Nature of data	Simple counts in categories/ using tools for evaluation of environments. Qualitative analysis of content e.g. of advertising. Potentially could undertake some qualitative interviews with a longer project.		
Source of data	Empirical observational studies		
External Stakeholders	Possibly the Heart Foundation may be interested in longer projects or for areas in which they are currently working e.g. child menu choices.		
Analytic techniques involved	Audit, evaluation, possibly qualitative interviewing and analysis.		
Other requirements	Enthusiasm for the a	rea	-

Engaging the public

Description: Deliberative methods are methods which aim to include a 'representative' group of citizens in informed deliberation about a particular issue. Usually the issue is contentious and the aim is to reach consensus in the group. There is concern amongst scholars and practitioners of deliberative inclusive methods/participatory democracy that there is a fixation on citizens' juries as the method of choice for involving citizens in informed decision-making to develop new government policy. However, there are many other methods which could be used.

In 2010 we undertook a systematic review of the use of deliberative methods in health. Street, J., Duszynski, K., Krawczyk, S., & Braunack-Mayer, A. 2014. The use of citizens' juries in health policy decision-making: A systematic review. Social Science & Medicine, 109, 1-9. We published one paper from that review on the use of citizens' juries. Other possible deliberative methods include consensus conferences, participatory budgeting, world cafes, deliberative polling, deliberative mapping, citizens' councils and planning cells. There are others which we did not find (e.g. kitchen table conversations and charrettes) possibly because we only looked in the peer reviewed literature and we focused on health.

This project examines alternatives to citizens' juries and how might they fit the Australian context. It includes updating the review, analysing alternatives and, potentially, interviewing people who have used these methods in Australia and elsewhere (by skype or telephone) in collaboration with the Department of Premier and Cabinet in South Australia.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters		cation ~6 units □
	6 units □ HDR MPhil ☑	12 units ⊠ PhD ⊠	24 units ⊠
Pre-requisite skills/courses			
Nature of data	Peer reviewed literature and grey literature. In the case of longer projects there is potential to include a small number of interviews with key individuals who have conducted citizens' juries in Australia.		
Source of data	Would build on the existing systematic analysed database from 2010 systematic review		
External Stakeholders	Various organisations and government departments involved in community engagement		
Analytic techniques involved	Systematic review methods, Narrative meta-synthesis of published data, Qualitative data analysis		
Other requirements			

Decision-making for compulsory public health measures

Description: This project builds on interviews conducted in 2009 with policy makers about their views on how decisions are made to make a health policy mandatory. Further interviews could be conducted with policy makers to document what compulsory measures are currently under consideration, how resources are used to make decisions, and the context, barriers and enablers for mandatory measures. It would also evaluate change in policy makers' views over time.

	Undergraduate Honours 18 units □	Summer Vaca	tion ~6 units ⊠
Possible scope of Project	Masters 6 units □ HDR MPhil ☑	12 units ⊠ PhD ⊠	24 units ⊠
Pre-requisite skills/courses	Some understanding of qualitative research would be useful		
Nature of data	Qualitative		
Source of data	Existing transcripts and new data collected in interviews.		
External Stakeholders			
Analytic techniques involved	Qualitative analysis		
Other requirements			

Scientific dishonesty and research

Description: This project will build on research undertaken in South Australia¹, Sweden and Norway² to explore the knowledge of, experiences with, and attitudes toward various forms of scientific dishonesty among research students. We have an opportunity to repeat and extend this work with both qualitative and quantitative research. It may also be useful to include early post-doctoral researchers as research participants.

- 1. Street, JM, Rogers, WA, Israel, M, Braunack-Mayer AJ. 2010. Credit where credit is due? Regulation, research integrity and the attribution of authorship in the health sciences. Soc.Sci.Med. 70(9): 1458-1465.
- 2. Hofmann, Bjørn; Helgesson, Gert; Juth, Niklas; Holm, Søren. (2015) Scientific dishonesty: a survey of doctoral students at the major medical faculties in Sweden and Norway. *Journal of Empirical Research on Human Research Ethics*. vol. 10 (4).

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units □ HDR MPhil ☑		Summer Vacati	ion ~6 units □ 24 units ⊠
Pre-requisite skills/courses				
Nature of data	Survey questionnaires			
Source of data	Survey of HDR stude	nts		
External Stakeholders				
Analytic techniques involved	Quantitative analysis			
Other requirements				

Interventions which support academic integrity

Description: The Australian Code for the Responsible Conduct of Research guides behaviour in the collection and storage of data and the publication of research. Universities and research institutes now provide supports for ethical behaviour in research including research integrity officers and ethics training. It is not clear if these actions have had any impact on unethical behaviours in research.

This project will systematically review interventions which have been used to improve research integrity in research institutions. The review will evaluate both the scale and scope of the interventions and evidence for effectiveness.

	1		
	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □		on ~6 units □
Possible scope of	Masters		
Project	6 units □	12 units 🛚	24 units
	HDR		
	MPhil ⊠	PhD ⊠	
Pre-requisite skills/courses			
Nature of data	Peer-reviewed and grey literature		
Source of data	Published literature		
External Stakeholders			
Analytic techniques involved	Systematic review		
Other requirements			

Enabling big data: Student views on the use of their data held within a University environment.

Description: This project is proposed at a time when the use of big data to describe individuals, communities and organisations is growing rapidly, both internationally and in Australia. Big data is a catchall phrase that encompasses the collection and aggregation of large data sets, automated processes of interrogation and generation of analytics. These mechanisms provide a powerful vehicle through which to understand human behaviour, evaluate services, answer research questions and support institutional marketing and promotion strategies.

The ability to reveal patterns and generate new knowledge from previously little examined data collections is moving faster than current legal and ethical guidelines can manage. In addition, the lines that separate appropriate use from misuse of big data are often thin and can display a lack of understanding of the limitations and shortcomings of data processes. This project is part of a larger project which aims to investigate the potential for enhanced legal, ethical and policy guidance to ensure that big data are collected, held, managed, analysed and disseminated appropriately. This project focuses on student and stakeholder views on the use of student data in and by universities. Depending on the scope, the project could be a small focused survey of University of Adelaide students or could be a much larger project looking at student and stakeholder views across Universities.

Possible scope of Project	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters 6 units ☑ 12 units ☑ 24 units ☑ HDR MPhil ☑ PhD ☑			
Pre-requisite skills/courses				
Nature of data	Qualitative, quantitative or mixed			
Source of data	Survey, interview or focus group data collected by student. This might be within the University of Adelaide or across universities.			
External Stakeholders	The University of Adelaide human research ethics committee and the University itself may be interested in the outcome.			
Analytic techniques involved	Quantitative analysis of survey data, Qualitative thematic analysis			
Other requirements				

Young adults' consumption of energy drinks: Consumption patterns, attitudes and knowledge

Description: The consumption of energy drinks poses a number of health problems as they are high in sugar, and contain ingredients, such as caffeine and other novel ingredients, designed to boost energy and offer metabolic or central nervous system stimulation. These drinks are marketed at youth and young adults, who are typically high consumers. A qualitative investigation into the patterns of consumption will provide an understanding of consumer motivations and behaviours, reflecting diversity of use. This project will involve conducting focus groups with young adults (uni students) to explore consumption patterns, attitudes towards and context regarding the consumption of energy drinks, as well as knowledge regarding health effects of these beverages.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units □ HDR MPhil □	Summer Vac 12 units ⊠ PhD □	ation ~6 units □ 24 units ⊠
Pre-requisite skills/courses	computer and databa knowledge/ability and Knowledge of qualita	ise literacy, some sidexcellent written s tive methods and qu	
Nature of data	Qualitative data (transcripts of focus groups)		
Source of data	To be collected by the student from young adults (University students) via focus groups.		
External Stakeholders	SAHMRI		
Analytic techniques involved	Qualitative analysis involving coding data using NVivo software, and identifying and collating qualitative data into themes.		
Other requirements			

Young adults' consumption of sports drinks: Consumption patterns, attitudes and knowledge

Description: Our previous research indicates that sports drinks are used and consumed by the general public in ways that are consistent with marketing messages (to replenish for sport, exercise or exertion, provide energy and hydration). However, despite market appeal of the product to youth and young adults, the physical benefits of consuming sports drinks are more applicable to elite athletes, not the general public. The purpose of this project is to undertake focus groups with young adults (uni students) to explore consumption patterns, attitudes towards and context regarding the consumption of sports drinks, as well as knowledge regarding health effects of these beverages.

Possible scope of	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units □ Masters			
Project Project	6 units □	12 units 🛚	24 units ⊠	
	HDR MPhil □	PhD □		
Pre-requisite	Student skills required include: systematic literature searching, computer and database literacy, some statistical knowledge/ability and excellent written skills.			
skills/courses	Knowledge of qualitative methods and qualitative data analysis.			
	Knowledge of and/or interest in obesity policy, sugary drinks and/or sports drinks.			
Nature of data	Qualitative data (transcripts of focus groups)			
Source of data	To be collected by the student from young adults (University students) via focus groups.			
External Stakeholders	SAHMRI			
Analytic techniques involved	Qualitative analysis involving coding data using NVivo software, and identifying and collating qualitative data into themes.			
Other requirements				

Australian media coverage of a tax on sugar-sweetened beverages

Description: Sugar-sweetened beverages are gaining more attention in public health due to their contribution to obesity, limited nutritional value and associated health issues. Regulatory measures, such as imposing a tax increase on soft drinks, have been implemented in other countries; however, Australia has lagged behind other countries in its implementation of initiatives to curb consumption. The media can play an important role in influencing and reflecting public opinion and political decision makers. Understanding the Australian media portrayal of SSB regulatory measures will provide insight into the formation and progression of public opinion on this important health issue. This project would involve undertaking a mediacontent analysis regarding coverage and views towards regulatory measures aimed at reducing the consumption of SSBs.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units □ HDR MPhil □	Summer Variation Summer Variation III III III III III III III III III I	acation ~6 units □ 24 units ⊠
Pre-requisite skills/courses	Student skills required include: systematic literature searching, computer and database literacy, some statistical knowledge/ability and excellent written skills. Knowledge of qualitative methods and qualitative data analysis. Knowledge of and/or interest in obesity policy and sugary drinks.		
Nature of data	Qualitative		
Source of data	Publicly available media articles		
External Stakeholders	SAHMRI		
Analytic techniques involved	Qualitative analysis involving creating suitable coding structures/frames, coding data using NVivo software, and identifying and collating qualitative data into themes.		
Other requirements			

Snakebite: Community health education strategies for prevention and first aid

Description: Snakebite is a major, but neglected, public health issue affecting a large number of people in many developing countries, affecting poor farmers. Many bites are preventable with appropriate measures such as use of torch, sanitation around houses/built areas, wearing of snakebite protective boots. The health outcomes for patients could be improved greatly with simple but timely and appropriate first aid measures that friends, family or fellow community members could apply. With funding by the DFAT, Government of Australia, a comprehensive collaborative project with Myanmar Ministry of Health and Ministry of Industry is being implemented in the Mandalay Division of Myanmar. The student project will be part of the overall action research project contributing to prevention and improved health outcomes for patients. A key part of this project is to work with communities around education and skill development in prevention and first aid measures. The student will be involved in reviewing the implementation process and immediate outputs with a view to refining the strategies further.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units □ HDR MPhil □	Summer Vacat 12 units ☑ PhD □	ion ~6 units 24 units ⊠	
Pre-requisite skills/courses				
Nature of data	Qualitative and quantitative			
Source of data	Review of the education activities logs, survey/interviews with the community members and staff			
External Stakeholders	Ministry of Health and Ministry of Industry, Myanmar			
Analytic techniques involved	Qualitative/Quantitative mix			
Other requirements	Students must be either Australian citizens or permanent residents. The student will be required to travel to Myanmar for a period of 2-3 months. Excellent communication skills are essential. It would be useful if the student has some experience (through academic placements, voluntary work, research or development work in the past) in working with the communities and/or health care providers and/or some experience of work in a developing country.			

Improving the health outcomes for pregnant women in Kutai Kartanegara District, East Kalimantan, Indonesia

Description: Health Services Intervention Research in 4 urban and 4 rural areas aimed at improving the health outcomes for pregnant women and comparing the outcomes before and after introducing a spectrum of changes in 8 health centres catchment areas and at three hospitals. You will learn about the health system in a developing country, safe motherhood services and quality of care as a reason to stalled decline in maternal mortality.

Possible scope of Project Comparison of Project			
Pre-requisite skills/courses Essential: At least a Credit average in epidemiology and biostatistics and ability to use SPSS. Desirable: prior participation in quantitative study or data collection/entry, motivated (and have time) to travel and learn in cross-cultural setting	Desirable: prior participation in quantitative study or data collection/entry, motivated (and have time) to travel and learn in		
Nature of data Quantitative pregnancy, labour and delivery care and health outcome data of 698 women			
Source of data Kutai Kartanegara District Department of Health.	Kutai Kartanegara District Department of Health.		
Analytic techniques involved Quantitative data analysis	Quantitative data analysis		
There may be funding available for one airfare to Indonesia.			
Other requirements Note that: The student will need his/her own funding for living an accommodation for about 3 months in Indonesia (about \$500 – \$1000 a month)	,		

Evaluation of health education and first aid training for community members and primary care staff over the last three years in Mandalay, Myanmar

Description: Evaluation of outputs and outcomes of health education and first aid trainings for community members and training for the primary care staff over the last three years. Students will learn about health systems in developing a country, community knowledge and practices in terms of prevention and first aid, health services timeliness and appropriateness as reported by the primary care staff,.

	Undergraduate Honours 18 units ☑ Summer Vacation ~6 units ☑			
Possible scope of Project	Masters 6 units □	12 units □	24 units □	
	HDR MPhil □	PhD □		
Pre-requisite Essential: At least a Credit average in epidemiology and biostatistics and ability to use SPSS OR knowledge and skill qualitative individual or group interviews and qualitative data analysis.		owledge and skills in		
skills/courses	Desirable: prior participation in quantitative study or data collection/entry, motivated (and have time) to travel and learn in cross-cultural setting			
Nature of data	Development of questionnaire and/or guides to qualitative data collection and/or development of a database (SPSS) for data entry and analysis			
Source of data	Existing data set			
External Stakeholders	Ministry of Health & regional services directorate			
Analytic techniques involved	Qualitative and/or quantitative			
Other requirements	There may be funding available for one airfare to Myanmar, and for living and accommodation for two to three months			

Root cause analysis of maternal deaths at one teaching and one district hospital in Surabaya, East Java, Indonesia

Description: Evaluation of outputs and outcomes of health education and first aid trainings for community members and training for the primary care staff over the last three years. The student will learn about health systems in developing countries, quality of care concepts, death audits and assessment of the contributing factors towards poor quality of care, qualitative and quantitative analysis of contributory factors.

Possible scope of Project	Undergraduate Honours 18 units ☑ Masters 6 units □ HDR MPhil ☑	Summer Vacation ~6 12 units ☑ PhD ☑	units □ 24 units ⊠
	IVII IIII 🔼		
Pre-requisite skills/courses	Desirable: Good knowledge of: the determinants of health; access to care; quality of care concepts; motivated to travel and learn in cross-cultural setting		
Nature of data	Medical records including pregnancy, labour and delivery care for 20 women; death audits; interviews		
Source of data			
External Stakeholders	University of Airlangga & District Department of Health.		
Analytic techniques involved	Quantitative & qualitative		
	There may be funding available for one airfare to Indonesia.		
Other requirements	Note that: The student will need his/her own funding for living and accommodation for about 3 months in Indonesia (about \$500 – \$1000 a month)		

How do community members and healthcare professionals currently undertake advance care planning and apply the current South Australian law?

Description: This project is part of a larger NHMRC Partnership project entitled: *Including vulnerable populations in the development of policies and strategies in sensitive public policy areas.* This project is part of Study 3 in the larger project which is investigating community members' and health professionals' understandings of advance care planning (ACP), particularly as enacted in Aboriginal and Torres Strait Islander peoples, people from CALD backgrounds and people with advanced chronic disease. Your role will be to identify and review and evaluate materials developed or used in these vulnerable populations in both community and acute health services in South Australia to guide and inform healthcare professionals and community members regarding ACP.

	Undergraduate Honours 18 units □ Summer Vacation ~6 units □		
Possible scope of Project	Masters 6 units □	12 units □	24 units ⊠
	HDR MPhil ⊠	PhD □	
Pre-requisite skills/courses	Qualitative research skills,		
Nature of data	Legislation; policy documents; advance care planning documentation; advance care directives and associated information;		
Source of data	National and SA legislation and policy; specific health service and hospital policies; Law Society		
External Stakeholders			
Analytic techniques involved	Document Review		
Other requirements			

Community and health care provider perspectives of South Australian legislation on Advance Care Planning

Description: Advance care planning (ACP) allows individuals to make plans for their future care, often in consultation with clinicians, family members, and important others. Despite development of legislation to improve implementation and uptake of ACP, problems remain, partly because of differences in interpretation of relevant legislation and policy. Such differences are heightened within vulnerable communities where cultural variation in practices and ways of thinking about individuals, families, health decision-making, and death must also be address. Drawing upon existing data, this project will examine the needs and expectations of defined vulnerable communities and healthcare providers regarding current legislation and policy, identifying points of congruence and divergence.

Possible scope of Project	Undergraduate Honours 18 units □ Masters 6 units □ HDR MPhil ☑	Summer Vacation ~ 12 units PhD PhD	6 units □ 24 units ⊠
Pre-requisite skills/courses	Honours/Masters degree (minimum 15 points research component)		
Nature of data	Qualitative, policy, legislation		
Source of data	Community consultations, focus groups, and interviews		
External Stakeholders	 Aged and Community Services SA & NT Inc Alzheimer's Australia SA SA Health Law Society of Australia Modbury Hospital Foundation Multicultural Communities Council of SA Northern Adelaide Local Health Network Northern Health Network Northern Communities Health Foundation Palliative Care SA 		
Analytic techniques involved	Thematic analysis		
Other requirements	Legal training an advantage		

Culturally appropriate end of life care within Culturally and Linguistically Diverse (CaLD) communities

Description: Although approximately 26% of Australians were born overseas, and almost 40% of migrants from non-English speaking countries are aged 50+years, individuals from CALD backgrounds face substantial barriers that limit access to appropriate palliative and end-of-life care. High levels of chronic disease and an ageing population creates an urgent need to ensure the provision of culturally appropriate end-of-life care within these communities. This project will utilise inclusive engagement processes to provide insights into participant values, preferences, and current practices with regard to advance care planning, identifying how policy-makers might engage appropriately with three nominated communities (Italian, Vietnamese, and Bhutanese) for ACP specifically, and sensitive policy issues, more generally.

Possible scope of Project	Undergraduate Honours 18 units □ Summer Vacation ~6 units □ Masters 6 units □ 12 units □ 24 units □ HDR MPhil □ PhD ☒		
Pre-requisite skills/courses	Honours/Masters degree (minimum 15 points research component)		
Nature of data	Qualitative, participatory action research process		
Source of data	Community consultations, focus groups, and interviews		
External Stakeholders	 Aged and Community Services SA & NT Inc Alzheimer's Australia SA SA Health Law Society of Australia Modbury Hospital Foundation Multicultural Communities Council of SA Northern Adelaide Local Health Network Northern Health Network Northern Communities Health Foundation Palliative Care SA 		
Analytic techniques involved	To be determined; qualitative, ethnographic, thematic possible		
Other requirements	Awareness and/or experience of cross-cultural research preferred		

Values and ethics in policy and practice end of life care within vulnerable communities: developing ethical appropriate and inclusive policy.

Description: Advance care planning (ACP) allows individuals to make plans for their future care, often in consultation with clinicians, family members, and important others. Despite promotion of ACP, problems remain, partly because ethical principles embedded within cultural practices and beliefs informing behaviours are often left unstated and unexamined. However, failure to account for differences in these fundamental values can lead to miscommunication, confusion, and conflict within and between all involved. This is especially so as ACP decisions encapsulate (differing) beliefs and practices about meaning and quality of life, familial and health-carer responsibilities, and life and death. This project will identify, clarify, analyse, and theorise the ethical issues involved in developing policy through engagement with vulnerable populations generally, and inclusive policy and practice around ACP specifically.

Possible scope of	Undergraduate Honours 18 units □ Summer Vacation ~6 units □ Masters			
Project	6 units □ 12 units □ 24 units □			
	HDR MPhil □ PhD ⊠			
Pre-requisite skills/courses	Honours/Masters degree (minimum 15 points research component)			
Nature of data	Qualitative, participatory action research process			
Source of data	Community consultations, focus groups, and interviews			
External Stakeholders	 Aged and Community Services SA & NT Inc Alzheimer's Australia SA SA Health Law Society of Australia Modbury Hospital Foundation Multicultural Communities Council of SA Northern Adelaide Local Health Network Northern Health Network Northern Communities Health Foundation Palliative Care SA 			
Analytic techniques involved	Applied ethical analysis, discursive analysis			
Other requirements	Awareness and/or experience of cross-cultural research preferred			

Culturally appropriate end of life care within SA Aboriginal and Torres Strait Islander communities

Description: High levels of chronic disease combined with an ageing population creates an urgent need to ensure the provision of culturally appropriate end-of-life care within Aboriginal and Torres Strait Islander communities. The project will utilise inclusive engagement processes to provide insights into community values, preferences, and current practices with regard to advance care planning (ACP), identifying how policy-makers might engage appropriately with Aboriginal and Torres Strait Islander communities for ACP specifically, and sensitive policy issues, more generally.

	Undergraduate Honours 18 units □ Summer Vacation ~6 units □		
Possible scope of Project	Masters 6 units □ 12 units □ 24 units □		
	HDR MPhil □ PhD ⊠		
Pre-requisite skills/courses	Honours/Masters degree (minimum 15 points research component)		
Nature of data	Qualitative, participatory action research process		
Source of data	Community consultations, focus groups, and interviews		
External Stakeholders	 Aged and Community Services SA & NT Inc Alzheimer's Australia SA SA Health Law Society of Australia Modbury Hospital Foundation Multicultural Communities Council of SA Northern Adelaide Local Health Network Northern Health Network Northern Communities Health Foundation Palliative Care SA 		
Analytic techniques involved	Thematic analysis		
Other requirements	This project is open for individuals identifying as Aboriginal or Torres Strait Islander only, and is supported by a scholarship funded by the University of Adelaide Graduate Centre and Northern Communities Health Foundation Inc.		