PUBLIC HEALTH HONOURS MAJOR
2020 PROJECTS
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ABOUT HONOURS

The Public Health honours is a specialised year of study for those students who have demonstrated a high level of academic achievement in their undergraduate degree. The honours year offers an opportunity to immerse yourself in a research topic under the expert guidance of an academic supervisor, providing you with advanced training in contemporary approaches to health research.

If you have performed well in your undergraduate studies, have a capacity for defining and solving problems, enjoy discussing concepts, and exploring ideas, we encourage you to apply for honours.

Honours has the ability to improve your employment opportunities, as many prospective employees view honours as an indicator of advanced skills and knowledge and an ability to work independently. The completion of an honours year shows that you have persistence, the ability to apply yourself to achieving a complex goal, and are able to manage your time when presented with a large task to complete independently.

Public Health honours students are a select group. If you are successful in your application, we look forward to welcoming you to our stimulating, supportive and growing research community.

YOUR HONOURS COORDINATORS

Associate Professor Jonine Jancey
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INSTRUCTIONS TO STUDENTS

We encourage you to review the available projects listed under the School of Public Health themes in this booklet. We then invite you to contact the academic supervisor responsible for the project to discuss the research project in more detail.

ABOUT THE SCHOOL OF PUBLIC HEALTH

The School of Public Health is the largest of the eight Schools within the Faculty of Health Sciences. We teach and conduct cutting edge, world-class research across three main themes in public health: health promotion and disease prevention; occupation and the environment; and health systems and health economics.

The School of Public Health at Curtin University was established in 1979 and has evolved to become a leader in public health in Australia and the broader Asia-Pacific region. We are driven towards developing, testing and implementing innovative solutions to new and emerging public health issues.

The research undertaken within the School has an international outlook supported by a network of strong relationships with universities across Southeast Asia and Europe, making us an attractive destination for international students wanting to pursue education in public health.
GENDER BIAS IN INFANT FEEDING PRACTICES

SUPERVISOR/S
Prof Jane Scott and Dr Andrea Begley
Contact: jane.scott@curtin.edu.au or andrea.begley@curtin.edu.au

PROJECT DESCRIPTION
Breastfeeding confers significant health benefits to infants and their mothers and the NHMRC recommend that infants be exclusively breastfed to around 6 months and that breastfeeding continue following the introduction of solids to 12 months and beyond. In diverse mammalian species, including humans, nursing behaviour can differ between male and female offspring. However, in humans the impact of gender on infant feeding practices is culturally dependent. For instance, in low income Asian and African countries boys are generally breastfed for longer than girls. Whereas in high income countries the reverse has been reported with girls being breastfed for longer than boys, and boys being introduced to formula and solid foods earlier than girls. The aim of this mixed methods study is assess whether infant feeding practices in Western Australia differ by gender.

In the quantitative component of this project (supervised by Professor Scott), existing data on gender and infant feeding practices from the first and second Perth Infant Feeding Studies, the Rural Infant Feeding Study and the Parent Infant Feeding Initiative will be merged and a secondary analysis conducted in SPSS using multivariable logistic regression and survival analysis to investigate the association of infant gender and infant feeding practices, including breastfeeding initiation and duration, and the age of introduction of formula and solid foods.

In the qualitative component of this project (supervised by Dr Begley) focus groups of mothers will be conducted and recorded and the transcripts analysed to determine if gender affects infant feeding practices, particularly breastfeeding of older children. This qualitative component would be similar to previous work by the supervisors with mothers exploring the experiences with the introduction of solid foods.


ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
Qualitative research skills - subject recruitment, conducting focus groups and analysis of transcripts, use of NVivo qualitative data analysis software (training provided in honours), SPSS analysis skills and database management

NECESSARY SKILLS/KNOWLEDGE
Entry level experience of SPSS or another statistical package
IDENTIFYING ATTITUDES AND BEHAVIOURS REGARDING VITAMIN D AND SUN EXPOSURE IN AFRICAN PEOPLE LIVING IN PERTH

SUPERVISOR/S
Dr Andrea Begley and Dr Lucinda Black
Contact: andrea.begley@curtin.edu.au or lucinda.black@curtin.edu.au

PROJECT DESCRIPTION
There is a high prevalence of vitamin D deficiency in people with dark skin living in Australia. Sun exposure guidelines for the general population may not be appropriate for people with dark skin, and dietary sources of vitamin D are limited to specific foods (namely oily fish, meat, eggs, dairy and mushrooms). The Cancer Council WA has identified a need to reach members of the African population living in WA with educational resources about sun exposure and vitamin D deficiency. Advice on cultural norms with respect to sun exposure and diet, and advice on appropriate messaging for African people, is needed to inform the development of such a campaign.

Working closely with Cancer Council WA and the Organisation of African Community of WA (OAC-WA, a not-for-profit organisation that provides support, services and representation for all Africans in WA), we will conduct focus groups involving African people living in Perth and surrounding areas. Participants will be recruited with the help of the OAC-WA community network. The student will be required to travel to various locations in Perth to coordinate focus groups, with the help of experienced staff. The aim of the project is develop an understanding of cultural norms and knowledge of/attitudes towards vitamin D deficiency, sun exposure, dietary vitamin D and supplementation, in order to develop a targeted campaign to improve vitamin D status in African people living in WA.

ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
Qualitative research methods (e.g. focus groups, NVivo)

NECESSARY SKILLS/KNOWLEDGE
Excellent interpersonal skills; qualitative research methods
CONSUMER PREFERENCES AND COST-EFFECTIVENESS OF MOBILE METHODS OF DIETARY ASSESSMENT

SUPERVISORS
Prof Deb Kerr, A/Prof Richard Norman and Janine Wright
Contact: d.kerr@curtin.edu.au or richard.norman@curtin.edu.au or J.Wright@exchange.curtin.edu.au

PROJECT DESCRIPTION
This project is funded by an ARC Discovery project grant and provides a unique opportunity to actively participate in a research project and be part of an interdisciplinary research team. The design of the study is a controlled feeding study. Data collection will take place during 2020. The specific aim of this honours project is to assess the cost-effectiveness of mobile methods of dietary assessment and consumer preferences for technology-assisted dietary assessment methods. Accurate assessment of dietary intake is essential in the research setting as well as to inform effective government decision making. To insure high quality and contemporary dietary data, technological advances using images and automated methods provide new approaches to address issues of accuracy, respondent burden and cost. The outcomes of this project will be highly relevant to policy makers and for planning future population surveillance.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
The student will develop skills in dietary analysis, and analysis of data in a statistical software of their choice (likely either SPSS or STATA).

NECESSARY SKILLS/KNOWLEDGE
It would be advantageous for the student to have a background in nutrition, as well as some statistical analysis. However, if the student only has one of these, they will be supported over the project to develop the other.

THE NUTRITIONAL STATUS OF A SAMPLE OF 9-13-YEAR-OLD CHILDREN WITH OVERWEIGHT AND OBESITY IN PERTH, WESTERN AUSTRALIA

SUPERVISORS
A/Prof Sebely Pal and Monica Jane
Contact: S.Pal@curtin.edu.au or monica.jane@curtin.edu.au

PROJECT DESCRIPTION
The number of children with overweight in Australia has doubled in recent years, with a quarter of children considered to have overweight or obesity. One important risk for obesity is the tendency to the consume energy dense, nutrient poor diets. According to the ABS National Health Survey 2017-18, over seven in ten (73.0%) children aged 2-17 years ate the recommended serves of fruit, one in sixteen (6.3%) ate the recommended amount of vegetables and one in seventeen (6.0%) children met the guidelines for the recommended number of serves of both fruit and vegetables. In addition, one in fourteen children (7.1%) consume sugar sweetened drinks daily and almost one third (31.1%) consume them one to three days per week. Aside from predisposing individuals to the metabolic syndrome and its associated complications, this type of dietary pattern can negatively impact the overall nutritional status of these children. Using self-reported data collected via the ASA24 online dietary assessment tool, this study aims to take a snapshot of the macro- and micro-nutrient intake of 9-13-year-old children with overweight or obesity, sampled from the wider Perth metropolitan area.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
Literature searching, critical appraisal, dietary analysis, and SPSS analysis skills.

NECESSARY SKILLS/KNOWLEDGE
Experience with Microsoft Excel, SPSS
DESIGNING AN ARTIFICIAL PANCREAS TO CURE DIABETES AND EXAMINING EFFECTS ON PATIENTS HEALTH AND WELL-BEING, USING NANO-TECHNOLOGY.

SUPERVISOR/S
Dr Hani Al-Salami and A/Prof Ryu Takechi
Contact: hani.al-salami@curtin.edu.au or R.Takechi@curtin.edu.au

PROJECT DESCRIPTION
The science of bio-nanotechnology was pioneered by Prof Chang at McGill University in Montreal (Canada), where Dr Al-Salami carried out his training prior to moving to Curtin, and establishing his lab, Biotechnology and Drug Development Research Lab (2014). Dr Al-Salami has medical health background, and currently a practicing Health Practitioner in Australia, NZ and with duties in Canada.

Associate Professor Takechi is a world leader in lipid regulation and brain involvement in diabetes. At Curtin, one of the joint projects between Associate Prof Takechi and Dr Al-Salami is looking at insulin delivery to treating diabetes, based on cell therapy and the use of novel compounds known as bile acids. Bile acids are endogenously synthesized compounds in humans and notionally known to help digesting food. Recent discoveries have shown that bile acids have unique ability to form nano-capsules that can be used to create an artificial pancreas and treat diabetes. Hence, the project looks at the role of bile acids in designing a bio-artificial pancreas and treat the health and well-being of Type 1 diabetic patients and control diabetes complications.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
At the end of the project, the student will have in-depth understanding of tissue-engineering and how to build a healthy viable pancreas, and the impact on the health and well-being of Type 1 diabetic patients. There is a significant medical focus, with medical experiments being carried out in a wet-lab setting.

NECESSARY SKILLS/KNOWLEDGE
Nutrition background, and desire to carry out wet-lab and nano-technological research (industry work) with a medical focus on bio-artificial organs and their potential impact on Type 1 diabetic health and well-being.
THE EFFECT OF BIO NANOTECHNOLOGY ON THE ORAL DELIVERY OF ANTIDIABETIC DRUGS AND EFFECTS ON THE HEALTH AND WELL-BEING OF TYPE 2 DIABETIC PATIENTS

SUPERVISOR/S
Dr Hani Al-Salami and A/Prof Ryu Takechi
Contact: hani.al-salami@curtin.edu.au or R.Takechi@curtin.edu.au

PROJECT DESCRIPTION
Dr Al-Salami is an Australian and New Zealand registered health practitioner with medical training focusing on antidiabetic drugs, their nano-formulation and delivery, and impact on diabetic health.

Bio-nanotechnology was pioneered at McGill University (Canada) by Prof Chang where Dr Al-Salami was trained prior to commencing work at Curtin.

At Curtin, Associate Prof Takechi and Dr Al-Salami have established projects, mainly integrating bio-nanotechnology, drugs and nutrients’ pharmacology/effects with the well-being and health of Type 2 diabetic patients. The project has a lab-based (wet-lab) focus, and aims to meet pharmaceutical industry requirements for innovative, creative and pioneering new nano-technologies to treating diabetes.

The project provides strong base for further specialization and training that might be relevant to either joining Curtin Medical School or carrying out a doctorate studies at Curtin. Accordingly, the project explores new bio-nano engineering technologies to optimize drugs’ effectiveness and improve safety profile when eventually taken orally by diabetic patients.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
At the end of the project, the student will have greater understanding of drug nano-technology, targeted delivery and impact on the health of Type 2 diabetic patients. There is a significant medical focus, with medical experiments being carried out in a wet-lab setting.

NECESSARY SKILLS/KNOWLEDGE
Strong background in Nutrition, and desire to carry out wet-lab and nano-technological research (industry work) with a medical focus on the inflammatory profile of Type 2 diabetic patients.
SECONDARY DATA ANALYSIS OF PATTERNS OF DIET QUALITY, EXPENDITURE AND HEALTH-RELATED QUALITY OF LIFE

SUPERVISOR/S
A/Prof Richard Norman and Prof Deborah Kerr
Contact: richard.norman@curtin.edu.au or d.kerr@curtin.edu.au

PROJECT DESCRIPTION
The LiveLighter Tailored Online Diet and Activity (TODAY) 1-year project has collected considerable data in a cohort of people looking to improve their diet and physical activity. The specific data for this Honours project (that is already collected) involves detailed diet quality, food expenditure information, and health-related quality of life. This Honours project involves exploring associations between these three groups of variables across the cohort. For example, is healthy eating associated with higher expenditure on food? Does healthy eating translate into a change in quality of life? These questions have a potentially significant public health message.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
The student will develop skills in dietary analysis, and analysis of data in a statistical software of their choice (likely either SPSS or STATA).

NECESSARY SKILLS/KNOWLEDGE
It would be advantageous for the student to have a background in nutrition, as well as some statistical analysis. However, if the student only has one of these, they will be supported over the project to develop the other.

IDENTIFYING ATTITUDES AND BEHAVIOURS REGARDING VITAMIN D AND SUN EXPOSURE IN AFRICAN PEOPLE LIVING IN PERTH

SUPERVISOR/S
Dr Andrea Begley and Dr Lucinda Black
Contact: A.Begley@curtin.edu.au or lucinda.black@curtin.edu.au

PROJECT DESCRIPTION
There is a high prevalence of vitamin D deficiency in people with dark skin living in Australia. Sun exposure guidelines for the general population may not be appropriate for people with dark skin, and dietary sources of vitamin D are limited to specific foods (namely oily fish, meat, eggs, dairy and mushrooms). The Cancer Council WA has identified a need to reach members of the African population living in WA with educational resources about sun exposure and vitamin D deficiency. Advice on cultural norms with respect to sun exposure and diet, and advice on appropriate messaging for African people, is needed to inform the development of such a campaign.

Working closely with Cancer Council WA and the Organisation of African Community of WA (OAC-WA, a not-for-profit organisation that provides support, services and representation for all Africans in WA), we will conduct focus groups involving African people living in Perth and surrounding areas. Participants will be recruited with the help of the OAC-WA community network. The student will be required to travel to various locations in Perth to coordinate focus groups, with the help of experienced staff. The aim of the project is develop an understanding of cultural norms and knowledge of/attitudes towards vitamin D deficiency, sun exposure, dietary vitamin D and supplementation, in order to develop a targeted campaign to improve vitamin D status in African people living in WA.

ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
Qualitative research methods (e.g. focus groups, NVivo)

NECESSARY SKILLS/KNOWLEDGE
Excellent interpersonal skills; qualitative research methods
**OMEGA-3 FATTY ACIDS AND EARLY DISEASE ACTIVITY OF MULTIPLE SCLEROSIS**

**SUPERVISOR/S**
Dr Lucinda Black and Prof Gavin Pereira

Contact: lucinda.black@curtin.edu.au or gavin.f.pereira@curtin.edu.au

**PROJECT DESCRIPTION**
Multiple sclerosis (MS) is an incurable chronic inflammatory and neurodegenerative disease of the central nervous system. Although there is a paucity of evidence on the role of diet and disease progression in MS, a number of restrictive diets are promoted online for people with MS. Such restrictive diets often contradict healthy eating guidelines, with potentially detrimental effects, including nutrient deficiency, financial burden and stress. Hence, there is a pressing need for high quality evidence on the role of diet and MS disease progression.

The evidence associating omega-3 fatty acids and MS disease progression is inconclusive. The aim of this project is to test associations between blood levels of omega-3 fatty acids and early disease activity in MS. The project will involve secondary analysis of data from the Ausimmune Study, an Australian multicentre case-control study of people with early demyelinating disease. We will use blood samples and early disease activity outcome measures from the 2-3 year follow-up (n=263 cases). The results of this project will improve our understanding of the role of diet in early MS disease activity, and will contribute to the development of rigorous dietary intervention studies.

**ETHICS**
Ethics approved

**SKILLS THAT WILL BE DEVELOPED**
The student will develop skills in nutritional epidemiology and statistical analysis using Stata.

**NECESSARY SKILLS/KNOWLEDGE**
A nutrition background is mandatory. Statistical skills are desirable.

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**FISH CONSUMPTION AND DISEASE PROGRESSION OF MULTIPLE SCLEROSIS**

**SUPERVISOR/S**
Dr Lucinda Black and Prof Gavin Pereira

Contact: lucinda.black@curtin.edu.au or gavin.f.pereira@curtin.edu.au

**PROJECT DESCRIPTION**
Multiple sclerosis (MS) is an incurable chronic inflammatory and neurodegenerative disease of the central nervous system. Although there is a paucity of evidence on the role of diet and disease progression in MS, a number of restrictive diets are promoted online for people with MS. Such restrictive diets often contradict healthy eating guidelines, with potentially detrimental effects, including nutrient deficiency, financial burden and stress. Hence, there is a pressing need for high quality evidence on the role of diet and MS disease progression.

We recently showed that higher fish consumption is associated with reduced risk of MS. The aim of this project is to test whether higher fish consumption is also associated with reduced disease progression. The project will involve secondary analysis of data from the AusLong Study, an Australian multicentre prospective cohort of people with MS (n=263). We will use dietary intake data and disease progression outcome measures from the 5- and 10-year follow-ups. The results of this project will improve our understanding of the role of diet in MS disease progression, and will contribute to the development of rigorous dietary intervention studies.

**ETHICS**
Ethics approved

**SKILLS THAT WILL BE DEVELOPED**
The student will develop skills in nutritional epidemiology and statistical analysis using Stata.

**NECESSARY SKILLS/KNOWLEDGE**
A nutrition background is mandatory. Statistical skills are desirable.
THE IMPACT OF SOCIAL MOBILITY ON CONTINUITY OF PRIMARY CARE

SUPERVISOR/S
A/Prof Rachael Moorin and David Youens
Contact: r.moorin@curtin.edu.au or david.youens@curtin.edu.au

PROJECT DESCRIPTION
Previous work by the supervisor has demonstrated that the onset of serious illness is associated with a reduction in migration to Perth amongst those living in rural and remote Western Australia. This might be caused by illness removing the usual incentives for urbanisation such as employment opportunities, or might reflect a reduction in economic means making a move more difficult. Regardless of the cause, the implication is that rural and remote populations with serious illness appear unable to migrate centrally to access services which they may require for their condition.

The current project aims to identify how the onset of serious disease may influence individual’s social mobility and contact with General Practitioners (GPs). The supervisor holds data including all hospitalisations and general practitioner visits for all West Australian residents. Hospital data will be used to identify the onset of serious disease, based on the first recorded admission for serious chronic illness. General practice data include patient postcodes, which can inform social disadvantage based on the Socio-Economic Index for Areas (SEIFA). The impact of the onset of serious illness on social mobility and continuity of GP contact will be analysed using regression models controlling for a range of covariates in the data.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
The student will further develop their skills in biostatistics and interpreting analysis results. The student will work with existing hospital and Medicare data and will learn about the development of these data and their use in research. The project will involve a literature review so will allow the student to develop their skills in searching and critically appraising the literature.

NECESSARY SKILLS/KNOWLEDGE
This project requires a student with strengths in epidemiology and biostatistics. Prerequisites – minimum mark of 70% in undergraduate biostatistics, epidemiology and research methods units (EPID1000, PUBH2001, PUBH3001). Data management skills would also be very helpful.
GROWTH OF INPATIENT AND OUTPATIENT COMPUTED TOMOGRAPHY VOLUMES IN WESTERN AUSTRALIA AND THEIR ASSOCIATED FACTORS: TIME SERIES ANALYSIS

SUPERVISOR/S
A/Prof Rachael Moorin and Dr Ninh Ha
Contact: r.moorin@curtin.edu.au or thi.ha@curtin.edu.au

PROJECT DESCRIPTION
Computerised Tomography (CT) scanning is a relatively high radiation dose diagnostic imaging procedure. While CT has many clinical benefits its increasing use is a policy and public health concern, because it accounts for both significant and increasing health care costs and a substantial proportion of the population’s radiation exposure. Ionising radiation is a modifiable risk factor for cancer. Health care technologies, such as CT account for a large proportion of the health care budget and concerns have been raising regarding the continued affordability of health care due to the substantial increase in use of these technologies. Recently attention has been given to identifying and preventing low value care (i.e. care that provides no net benefit in specific clinical scenarios) in order to improve quality of care and reduce unnecessary costs. Technological advances in CT have extended the use of CT scanning such that there have been substantial changes to the volume of examinations, profile of patients (i.e. age and sex) and clinical indications (type of condition) for which it is used. This has substantially increased health care costs and both individual and population based radiation dose, and thus risks, associated with the procedure. While certain uses of CT have been identified as “low value” (e.g. CT for chronic low back pain) greater understanding of the trends and underlying factors behind the increased use of CT is needed in order to determine the extent of low value care.

This study will examine the trend of CT utilisation across inpatient and outpatient sectors using whole-of-population linked administrative data taking into account trends of major clinical conditions and other socio-demographic characteristics of the Western Australian population overtime.

In addition to providing knowledge for this particular setting, a major aim of this study is to develop methodology useful for evaluating the growth of health services utilisation more generally.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
- Literature searching
- Critical appraisal of the literature
- Data manipulation and management of complex individual linked administrative data in STATA
- Advanced skills in data analysis - particularly time series data
- Writing and publishing research

NECESSARY SKILLS/KNOWLEDGE
Some previous experience in using statistical software (preferably STATA). This project requires a student with strengths in epidemiology and biostatistics. Prerequisites – minimum mark of 70% in undergraduate biostatistics, epidemiology and research methods units (EPID1000, PUBH2001, PUBH3001).
**PROJECT DESCRIPTION**

Computed Tomography (CT) scanning is a relatively high radiation dose diagnostic imaging procedure. While CT has many clinical benefits, its increasing use is a policy and public health concern, as it accounts for both significant and increasing health care costs and a substantial proportion of the population’s radiation exposure. Ionising radiation is a modifiable risk factor for cancer. A Berrington de Gonzalez et al estimated that 29,000 future cancers could be attributable to CT scans performed in the US in 2007.

We know that Australia has one of the most highly CT-scanned populations in the world with radiation doses up to 5-7 times higher than in the UK or New Zealand. Understanding how and on whom CT is used is essential to develop policy and practice to avoid undue burden for the health system and unnecessary risk to the population.

This study is part of a broader NHMRC funded study on CT use and radiation burden in Australia. This part of the study aims to evaluate changes in patterns of CT scanning within the hospital setting in Western Australia between 2003 and 2016 with regard to clinical indication for scanning and diagnostic group.

**ETHICS**

Ethics approval granted

**SKILLS THAT WILL BE DEVELOPED**

Literature review, critical appraisal, data analysis, quantitative, management of linked administrative health datasets, writing, statistical software (SPSS or STATA)

**NECESSARY SKILLS/KNOWLEDGE**

Experience using SPSS and/or STATA. Prerequisites – minimum mark of 70% in undergraduate biostatistics, epidemiology and research methods units (EPID1000, PUBH2001, PUBH3001).
ENGAGEMENT WITH GENERAL PRACTITIONERS - EXPECTATIONS OF EMERGENCY SERVICES IN COUNTRY WA

SUPERVISOR/S
Prof Suzanne Robinson, Dr Mitchell Sarkies and Natalie Crouch
Contact: Suzanne.robinson@curtin.edu.au, mitchell.sarkies@curtin.edu.au or Natalie.Crouch@health.wa.gov.au

PROJECT DESCRIPTION
Within WA Country Health Service (WACHS) Country Health Innovation (CHI) Program, the purpose of the Emergency and Acute (E&A) Pillar is to maintain and strengthen the delivery of emergency and acute services to the required level of care in regional WA. One of the overarching objectives is to continue to improve health outcomes for those accessing emergency medical care. In addition to sustaining emergency and acute services, the E&A Pillar has a focus on better engagement with the General Practitioner (GP) Workforce in Regional Networks and Towns.

The aim of this project is to investigate smaller WACHS sites and establish baseline information from the GP workforce who service these sites on their experiences, expectations, issues or concerns in the delivery of emergency care.

This project will work with a range of staff across WACHS including WACHS Planning. The work will require the design, development and implementation of a survey to engage the GP workforce and to conduct formal data collection and analysis in the areas mentioned above.

The outcome of the research will identify from the perspective of the GP workforce in smaller WACHS sites, specific issues and opportunities for improvement in relation to the safe delivery of emergency services.

This survey will support the objective of better engagement with GPs.

ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
Literature search, analytical skills, questionnaire and/or focus design, group facilitation skills

NECESSARY SKILLS/KNOWLEDGE
- Interpersonal skills and team work
- Good written and verbal communication skills
- Equally at ease working independently or as member of a team
- Interest in and or/ gaining knowledge in the area of health service provision in country WA
TELEHEALTH ACCEPTABILITY AND CONFIDENCE LEVEL AMONGST GRADUATE ALLIED HEALTH STAFF TO USE AS A TOOL TO PROVIDE CLINICAL CARE.

SUPERVISOR/S
Prof Suzanne Robinson, Dr Mitchell Sarkies and Ruth Warr
Contact: Suzanne.robinson@curtin.edu.au, mitchell.sarkies@curtin.edu.au or Ruth.Warr@health.wa.gov.au

PROJECT DESCRIPTION
Despite a growing literature base, substantial investment, and policy changes within governments, the integration of telehealth into routine clinical care has been limited. The availability of appropriate systematic education and training for practitioners has been highlighted as necessary for strong adoption. However, the availability and nature of telehealth-related education and training for practitioners is not understood (Journal of Telemedicine & Telecare DOI: 10.1177/1357633X16632968).

The relative shortage of rural allied health specialists makes distance and time a barrier for patients in accessing allied health services in country areas. With the potential significant increase in the use of technologies within health there is an opportunity to address this shortage through the use of telehealth in allied health services.

Technology/eHealth in medicine/health is progressive but anecdotally it is reported that graduates are not being exposed/supported in this area (at best by ad-hoc exposure as part of placement programs) For telehealth to be part of business as usual for clinicians and meet health strategic intent, (for example the WA Sustainable Health Review has a target that Metropolitan Health Service Providers will deliver 65% of outpatient services for country patients via telehealth by 2022) there is as risk is that the rapid growth in telehealth as service delivery mode will not be matched with the skill/knowledge level of our up and coming allied health/medical workforce.

Project Aim: To evaluate the current level of, and identify key strategies to support, “telehealth readiness” in graduate Allied Health staff in WA.

Objectives:
1. To determine a baseline measure of the acceptability and confidence level of telehealth use amongst graduate Allied Health staff within the rehabilitation and outpatient context.
2. To identify the training needs of graduate allied health staff in delivery of rehabilitation and outpatients services via telehealth.
3. To increase acceptability of telehealth as a service delivery mode amongst graduate allied health staff involved in the study.
4. To provide recommendations/results to tertiary organisations to facilitate integration of telehealth delivery into Allied Health Curriculum.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
Skills in literature searching, questionnaire/survey design, consultation, subject recruitment, consumer interviews and project management, interrogation of responses, data analysis. Knowledge of the WA health service context and organisational governance.

NECESSARY SKILLS/KNOWLEDGE
An understanding of survey and questionnaire design principles would be highly beneficial to undertaking this role, as well as an understanding of both quantitative and qualitative methods of evaluation and research. The role will require excellent interpersonal skills, and a keen interest in telehealth and e-medicine is desirable.
COST EFFECTIVENESS ANALYSIS OF A SOCIAL FRANCHISE MODEL FOR MENTAL HEALTH PROMOTION

SUPERVISOR/S
Dr Delia Hendrie, Dr Abby Mosedale and Simone Kerrigan
Contact: d.v.hendrie@curtin.edu.au, abby.mosedale@curtin.edu.au or simone.kerrigan@curtin.edu.au

PROJECT DESCRIPTION
The Act-Belong-Commit campaign makes extensive use of social franchising to facilitate participation in mentally healthy activities and for the delivery and implementation of the campaign at a local community level. The social franchise model enables the Act-Belong-Commit campaign to grow and expand its impact and geographical reach without necessarily increasing the size of the franchiser “hub”. The campaign partners with over 150 organisations in WA, with its success recognised outside of WA with the uptake of the campaign by partners across Australia and internationally in Japan, UK, Fiji, and Denmark’s National Institute for Public Health. Through a cost-effectiveness analysis of the social franchise model for the Act-Belong-Commit campaign, this research will evaluate this model for (i) maximising campaign reach and impact and (ii) providing value for money.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
Literature searching, critical analysis, data analysis, good inter-personal skills.

NECESSARY SKILLS/KNOWLEDGE
• Interpersonal skills and team work
• Good written and verbal communication skills
• Equally at ease working independently or as member of a team
• Interest in and or/ gaining knowledge in the area of economic evaluation
DEVELOPMENT OF A SURVEY GUIDE AND QUESTION BANK FOR ELICITING INFORMATION FROM WACHS STAFF, CLINICIAN, PATIENTS, CARERS AND CONSUMERS

SUPERVISOR/S
Dr Delia Hendrie and Nancy Bineham
Contact: d.v.hendrie@curtin.edu.au or nancy.bineham@health.wa.gov.au

PROJECT DESCRIPTION
Across WACHS program areas there is increasing interest in gathering input via surveys and/or structured interview/focus group processes from clinicians, managers, carers and consumers in their perceptions of current services to inform service/program development and improvement as well as gathering feedback/perceptions post implementation of new services (pre and post intervention surveys). This includes projects funded through the Country Health Innovation Program (CHI), Mental Health Choice and Partnership Approach (CAPA), Aboriginal Health Programs, Population Health and Health Promotion, Telehealth services and acute care services.

This supports achievement of NSQHS Standard 2 - engagement of consumers in planning and service review processes.

At present there is an ad hoc approach to the development of surveys, questions, tools and methodology across WACHS, although it is recognised surveys cover many similar ‘domains’ of questions (e.g. Quality (experience, satisfaction, confidence in services); Access (awareness of services, ease of access); Effectiveness (behaviour changes, practice changes, meeting needs, improving outcomes, cost effectiveness); Efficiency (e.g. wait times, coordinated care, responsiveness, timeliness, minimal wasted time/effort/resources); Self-evaluation/reflective practice.

Project Aim: To improve the approaches of gathering quantitative and qualitative feedback from consumers, carers and staff to better inform continual service improvements.

Objectives:
1. To achieve greater consistency, quality, validity and reliability in the design of consumer, carer and staff surveys and semi-structured interviews
2. Allow sufficient flexibility in survey design to meet the needs of various program areas and service types.
3. To improve the knowledge and skills of WACHS staff in the design of surveys and semi-structure interviews.

Methodology
The project will involve: (i) a scoping review and content analysis of domains and sub-domains used for eliciting information from WACHS staff, clinicians, patients, carers and consumers (ii) a follow-up audit of existing questionnaires and (iii) a consultation phase with representatives from WACHS and stakeholder groups to select appropriate questions to include in stakeholders surveys.

ETHICS
Ethics not required

SKILLS THAT WILL BE DEVELOPED
- Skills in literature searching, critical appraisal, questionnaire/survey design, consultation.
- Skills in written communication for business versus written communication for academia.
- Knowledge of the WA health service context, project management and organisational governance.

NECESSARY SKILLS/KNOWLEDGE
An understanding of survey and questionnaire design principles would be highly beneficial to undertaking this role, and understanding of both quantitative and qualitative methods of evaluation and research.
**HEALTHY OPTIONS WA POLICY – BARRIERS AND ENABLERS IN COUNTRY WA**

**SUPERVISOR/S**
Dr Mitchell Sarkies, Regina Michel-Huessy and Karine Miller

Contact: mitchell.sarkies@curtin.edu.au or Regina.Michel-Huessy@health.wa.gov.au or Karine.Miller13@health.wa.gov.au

**PROJECT DESCRIPTION**

In 2008, WA Health introduced a mandatory policy for the supply of food and drinks in health establishments within the State – the Healthy Options WA: Food and Nutrition Policy for WA Health Services and Facilities. The policy aims to ensure that the retail food environments in WA Health facilities provides and promotes nutritious food and drinks to staff and visitors.

The Minister for Health recently requested for all WA Health sites to become fully compliant with the policy by 31 October 2018. This mandate was followed up with Healthy Option Policy Audits across sample of sites including eight WA Country Health Service (WACHS) sites. The audit examined policy compliance in all food environments including canteens/cafes/kiosks (as well as auxiliary shops), vending machines and ward trolleys (where applicable). Across all WACHS sites audited, not one WACHS site was fully compliant with all aspects of the policy.

This project will work with a range of staff across WACHS including WACHS Health Programs Team, Regional Operations Managers, Dietitians and staff working at canteens/cafes and kiosks across WACHS to determine the enablers, barriers and opportunities to increase compliance with the policy across country WA and provide recommendations to the WACHS Executive as to how WACHS can improve policy compliance.

**ETHICS**

Ethics approval required

**SKILLS THAT WILL BE DEVELOPED**

- Literature searching, critical appraisal, questionnaire and / or focus design.
- Virtual engagement including via videoconferencing.

**NECESSARY SKILLS/KNOWLEDGE**

- Ability to build rapport and establish relationships with a large cross section of the community
- Interpersonal skills and team work
- Good written and verbal communication skills
- Excellent computer skills
- Equally at ease working independently or as member of a team
- Interest in and or/ gaining knowledge in the area of health service provision in country WA.
- Willingness to travel regionally will be looked upon favourably, however is not essential.
EPIDEMIOLOGY AND BIOSTATISTICS
PROJECTS

AN ONLINE SURVEY OF KNOWLEDGE AND AWARENESS OF OCCUPATIONAL CAUSES OF CANCER

SUPERVISOR/S
Dr Renee Carey and Prof Lin Fritschi
Contact: renee.carey@curtin.edu.au or lin.fritschi@curtin.edu.au

PROJECT DESCRIPTION
A variety of occupational exposures, including diesel engine exhaust, sun exposure, and pesticides have been linked to an increased risk of cancer. This project will involve conducting an online survey of Australian workers to examine their knowledge and awareness around occupational causes of cancer. This project will be undertaken within a research team working on related projects and the student may have the opportunity to contribute to other publications and projects. The student will also have the opportunity to apply for a Cancer Council Western Australia Honours Scholarship.

ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
Statistical analysis skills (STATA), questionnaire design, subject recruitment

NECESSARY SKILLS/KNOWLEDGE
Introductory epidemiology knowledge, some experience with STATA or other statistical analysis package

WHAT'S IMPORTANT TO THOSE AFFECTED BY RARE BLOOD CANCERS?

SUPERVISOR/S
Prof Lin Fritschi and Dr Renee Carey
Contact: lin.fritschi@curtin.edu.au or renee.carey@curtin.edu.au

PROJECT DESCRIPTION
Myeloproliferative neoplasms (MPN) are a group of rare blood cancers. Patients with MPNs have good survival, but living with an MPN has a number of side-effects such as extreme fatigue and bone pain. We are working with a consumer organization (MPN Alliance Australia) to do research on this group of neglected diseases.

This project aims to examine what research topics are most important to people with MPN. The project would involve setting up a web-based questionnaire to survey people with MPN, designing a strategy to invite as many people as possible to answer the survey, collecting and analysing the results and writing a report in lay language to feed back to the respondents. It would be done in collaboration with the MPN AA.

ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
Literature searching, critical appraisal, questionnaire design, web-based surveys, subject recruitment, analysis skills, writing reports, presenting scientific results in lay language.

NECESSARY SKILLS/KNOWLEDGE
Basic data analysis experience.
A CONTENT ANALYSIS OF INTERNATIONAL AND CHINESE MEDIA COVERAGE OF MINING ACCIDENTS IN CHINA

SUPERVISOR/S
A/Prof Alison Reid and Dr Justine Leavy
Contact: alison.reid@curtin.edu.au or J.Leavy@curtin.edu.au

PROJECT DESCRIPTION
Frequently, there are reports in the international news media about mining accidents in China, but the real size of the problem is not well understood or covered in the occupational health and safety literature. A content extraction framework will be adapted for use in this project, based on those used in the published literature. Then international and Chinese news media databases will be searched and information extracted into the framework. Content analysis will be used to interrogate the information to describe the extent and nature of mining accidents in China.

ETHICS
Ethics not required

SKILLS THAT WILL BE DEVELOPED
Literature searching, database management, content analysis, critical appraisal, framework modification.

NECESSARY SKILLS/KNOWLEDGE
Ability to read Mandarin or Cantonese.

A CONTENT ANALYSIS OF AUSTRALIAN MEDIA COVERAGE OF ADVERSE MIGRANT WORKING CONDITIONS

SUPERVISOR/S
A/Prof Alison Reid and Dr Justine Leavy
Contact: alison.reid@curtin.edu.au or J.Leavy@curtin.edu.au

PROJECT DESCRIPTION
There are many types of adverse incident that migrants experience at work that are reported in the newspapers and online but that are not captured by official statistics. These include: wage theft, injury and disability, slavery and exploitation. A content extraction framework will be adapted for use in this project, based on those used in the published literature. Then media databases will be searched and information extracted into the framework. Content analysis will be used to interrogate the information to describe the extent and nature of foreign-worker exploitation in Australia.

ETHICS
Ethics not required

SKILLS THAT WILL BE DEVELOPED
Literature searching, database management, content analysis, critical appraisal, framework modification.

NECESSARY SKILLS/KNOWLEDGE
None
AN ONLINE SURVEY OF KNOWLEDGE AND AWARENESS OF CANCER PREVENTION RECOMMENDATIONS

SUPERVISOR/S
Dr Renee Carey and Prof Lin Fritschi
Contact: renee.carey@curtin.edu.au or lin.fritschi@curtin.edu.au

PROJECT DESCRIPTION
Recommendations aimed at preventing cancer focus on lifestyle factors including weight, physical activity, and diet. This project will involve conducting an online survey to examine the general community’s knowledge of what causes cancer and their awareness of cancer prevention recommendations. This project will be undertaken within a research team working on related projects and the student may have the opportunity to contribute to other publications and projects. The student will also have the opportunity to apply for a Cancer Council Western Australia Honours Scholarship.

ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
Statistical analysis skills (STATA), questionnaire design, subject recruitment

NECESSARY SKILLS/KNOWLEDGE
Introductory epidemiology knowledge, some experience with STATA or other statistical analysis package

TRENDS AND DETERMINANTS OF INTERPREGNANCY INTERVALS IN WESTERN AUSTRALIA

SUPERVISOR/S
Dr Gizachew Tessema and Prof Gavin Pereira
Contact: gizachew.tessema@curtin.edu.au or gavin.f.pereira@curtin.edu.au

PROJECT DESCRIPTION
Both short and long interpregnancy intervals are associated with risks of adverse births outcomes such as preterm births, small-for-gestational age births, and low birth weight births. In addition, they are also associated with adverse maternal outcomes such as gestational diabetes, pregnancy induced hypertension, and uterine rupture. While the factors that determine the length of interpregnancy intervals vary between maternal sociodemographic (e.g. maternal age, socioeconomic status) and obstetrics characteristics (e.g. number of previous pregnancies, history of pregnancy induced hypertension, history of caesarean delivery), there was no sufficient evidence investigating the trends and determinants of interpregnancy intervals in Western Australia. Therefore, this project will look at: 1) the trends of interpregnancy intervals; and 2) the determinants of interpregnancy intervals using the birth cohort data collected between 1980 and 2015 in Western Australia.

ETHICS
Ethics granted

SKILLS THAT WILL BE DEVELOPED
The student will develop statistical analysis skills using STATA or SAS statistical packages. Develop literature searching skills.

NECESSARY SKILLS/KNOWLEDGE
Able to search and synthesize journal articles. An interest in conducting statistical analysis.
MAPPING DISEASE RISK AND RISK FACTORS IN WESTERN AUSTRALIA

SUPERVISOR/S
Prof Gavin Pereira and Dr Gizachew Tessema
Contact: gavin.f.pereira@curtin.edu.au or gizachew.tessema@curtin.edu.au

PROJECT DESCRIPTION
The aim of this study is to create maps for disease risk and disease risk factors in Western Australia. Health geography is based on the assumption that health is the product of interaction between pathological factors (including causative agents, vectors, and people) and geographical factors (physical, biological and social). This project involves the selection of a set of disease outcomes (e.g., obesity, cancer, paediatric outcomes) and risk factors (e.g., smoking, education, poverty, pollution) for which we also have geographic information (e.g., address, suburb). Next the prevalence and incidence of these outcomes and exposures are calculated and maps created using mapping software. These maps enable specific research questions to be investigated regarding the correlation between the risk factors, exposures and the disease outcomes.

ETHICS
Ethics granted

SKILLS THAT WILL BE DEVELOPED
The student will develop the ability to create maps and apply standard statistical methods.

NECESSARY SKILLS/KNOWLEDGE
Able to search and synthesize journal articles. An interest in visualising information. An interest in developing mapping skills.
ULTRAFINE PARTICLE EMISSIONS FROM WASTE TO ENERGY CONVERSION AND RELATED HEALTH IMPLICATIONS

SUPERVISOR/S
A/Prof Ben Mullins and Dr Ryan Mead-Hunter
Contact: b.mullins@curtin.edu.au or r.mead-hunter@curtin.edu.au

PROJECT DESCRIPTION
There is a growing issue associated with contaminated recyclables and other wastes going to landfill. A possible solution is to use this waste as a fuel for power generation, via incineration. While there are a number potential benefits to this process, there is some concern over the release of pollutants, particularly in the form of ultrafine particles. This project will consider this through the environmental monitoring of a number of sites surrounding the incinerator locations. Based on the monitoring results, potential health implications will be identified and discussed.

ETHICS
Ethics not required

SKILLS THAT WILL BE DEVELOPED
The student will gain experience in using a range of advanced aerosol measurement technology.

NECESSARY SKILLS/KNOWLEDGE
None

ASSESSMENT AND COMPARISON OF THE ACCURACY AND RELIABILITY OF PORTABLE REAL-TIME AEROSOL MONITORING EQUIPMENT

SUPERVISOR/S
Dr Ryan Mead-Hunter and A/Prof Ben Mullins
Contact: r.mead-hunter@curtin.edu.au or b.mullins@curtin.edu.au

PROJECT DESCRIPTION
The ability to accurately measure and characterise aerosols is important in both occupational and environmental contexts. Portable direct reading instruments offer a convenient and user friendly way of obtaining measurements, though may be subject to limitations in terms of accuracy. Using advanced laboratory based aerosol measurement and characterisation technology we will produce and characterise a range of test aerosols to evaluate a selection of available portable technologies to demonstrate their effectiveness.

This study will also allow any limitations of the devices to be reported and recommendations made in regard to their use. An understanding of the limitations of any particular device will be important for those using them, particularly if health and safety recommendations are being made based on these measurements.

ETHICS
Ethics not required

SKILLS THAT WILL BE DEVELOPED
The student will gain experience in using a range of advanced aerosol measurement technology.

NECESSARY SKILLS/KNOWLEDGE
None
MEASUREMENTS OF NANOPARTICLE DEPOSITION AND CLEARANCE IN A 3D-PRINTED HUMAN LUNG

SUPERVISOR/S
Dr Ryan Mead-Hunter and A/Prof Ben Mullins
Contact: r.mead-hunter@curtin.edu.au or b.mullins@curtin.edu.au

PROJECT DESCRIPTION
Inhalation is the most common route of exposure to hazardous substances in the workplace. The harmful effects of inhaled particulates are however, not purely determined by the act of being inhaled, rather the location and volume of material deposited. While we expect respirable particles to deposit in different locations to inhalable particles, such broad classifications do not provide detailed information on regional deposition within the respiratory tract. This project will utilise 3D printed lung geometries to assess both the deposition of particles and clearance.

A series of laboratory experiments will be performed utilising lung airway geometries generated from composite x-ray computed tomography (CT) scans. Aerosols will be generated in the laboratory and introduced to the geometry such that regional deposition can be determined. The result of experiments will be used to validate the results of concurrent simulations. The project will involve, manipulating x-ray CT data, construction of the experimental apparatus and the utilisation of a number.

ETHICS
Ethics not required

SKILLS THAT WILL BE DEVELOPED
The student will gain experience in using a range of advanced aerosol measurement technology.

NECESSARY SKILLS/KNOWLEDGE
A basic knowledge of lung physiology and aerosol dynamics would be advantageous.

ASSESSMENT OF THE PENETRATION OF DIESEL PARTICULATE FILTERS BY HIGH MOLECULAR WEIGHT COMBUSTION BY-PRODUCTS

SUPERVISOR/S
Dr Ryan Mead-Hunter and A/Prof Ben Mullins
Contact: r.mead-hunter@curtin.edu.au or b.mullins@curtin.edu.au

PROJECT DESCRIPTION
Diesel particulate filters have become a commonly used control to reduce particulate matter emissions. While these will reduce the amount of particulates released, there is the potential for combustion by-products that are not absorbed on to the particulates to be present in a liquid or gaseous state, which may allow them to travel through the filter. Given the operating temperatures of the filter, these substance could then condense downstream of the filter, forming new particles. This project will examine a selection of known combustion of known combustion by products to assess this filter penetration, under a range of operating conditions.

ETHICS
Ethics not required

SKILLS THAT WILL BE DEVELOPED
The student will gain practical experience working with diesel particulate filters, and exhaust after-treatments.

NECESSARY SKILLS/KNOWLEDGE
None
HOSPITAL WASTE MANAGEMENT IN THE SOUTH WEST: CREATING A WASTE PROFILE

SUPERVISOR/S
Dr Toni Hannelly and Dr Mark Monaghan, Director of Medical Services
Contact: T.Hannelly@curtin.edu.au or Mark.Monaghan@health.wa.gov.au

PROJECT DESCRIPTION
Medical waste is one of the most important types of waste requiring effective waste management and reduction for the environment.

Hospitals can significantly reduce their waste by combining waste prevention with comprehensive recycling strategies. A Hospital Waste Management project is currently in the planning stage at Busselton Health Campus and this research project will compliment strategies planned.

The research project aims to establish a baseline of current waste - creating a waste profile, with the data collection identifying the volume and type of waste generated and investigate the options for waste management practices.

The audit tools developed and baseline data collected will be critical to the continuous improvement process of waste management - understanding waste management requirements; reviewing existing operations and identifying data gaps; collecting data and assessing performance; identifying areas for action; developing and implementing action plans; building a corporate culture of waste awareness; and measuring and reporting on performance.

The outcome of the research will identify specific issues and opportunities for improvement in waste reduction and recycling at Busselton Health Campus.

ETHICS
Ethics not required

SKILLS THAT WILL BE DEVELOPED
Literature research, analytical skills, questionnaire design, audit tool design.

NECESSARY SKILLS/KNOWLEDGE
- Interpersonal skills and team work
- Good written and verbal communication skills
- Equally at ease working independently or as member of a team
- Valid WA Drivers Licence (may be required)
HEALTH PROMOTION PROJECTS

EXPLORING WHAT WATER SAFETY MEANS TO OVERSEAS BORN MOTHERS AND CARERS OF CHILDREN UNDER 5 YEARS

SUPERVISOR/S
Dr Justine Leavy and Gemma Crawford
Contact: j.leavy@curtin.edu.au or g.crawford@curtin.edu.au

PROJECT DESCRIPTION
People from culturally and linguistically diverse (CaLD) groups are vulnerable to drowning in Australia, and are a priority in national water safety strategies. This project is interested in insights from CaLD mothers and carers regarding drowning and water safety for both themselves and their children.

Project aim: To explore knowledge, attitudes, beliefs and behaviours towards water safety among overseas-born mothers and carers of children under 5 years now living in WA.

Objectives
- Examine perceptions of water safety and drowning prevention from women in culturally and linguistically diverse (CaLD) groups;
- Explore barriers & facilitators to water familiarisation skills amongst CaLD women;
- Develop recommendations for drowning prevention resources and strategies specifically designed for women from CaLD backgrounds and their children aged under 5 years

Methods: A qualitative focus group design will be used segmented by cultural background. Participants will be recruited from community organisations & playgroups with established CaLD populations e.g. Sudbury House Mirrabooka & Ishar Multicultural Women’s Health Centre. Participants will be: overseas born, newly arrived migrants, aged 18 years and older, and the mother or carer to at least one child under 5 years residing in the Perth metropolitan or regional WA. A semi-structured discussion guide will be developed, pilot tested with the target audience, and refined prior to implementation. The initial domains of enquiry will explore: perceptions, experiences and behaviours of water safety and water-based activities and water familiarisation. The focus groups will be audio-recorded & transcribed. Thematic analysis will be undertaken using an inductive approach.

ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
The student will develop skills in interview schedule design, participant recruitment, cultural awareness and qualitative data analysis. The student will have the ability to work within a research hub and with industry partners.

NECESSARY SKILLS/KNOWLEDGE
Requires a current drivers license and the ability to travel to regional Western Australia to collect data.
EXAMINING THE VULNERABILITY OF CULTURALLY AND LINGUISTICALLY DIVERSE (CALD) POPULATIONS TO HOMELESSNESS IN A WESTERN AUSTRALIAN CONTEXT

SUPERVISOR/S
Dr Krysten Blackford and Gemma Crawford
Contact: k.blackford@curtin.edu.au or g.crawford@curtin.edu.au

PROJECT DESCRIPTION
People from culturally and linguistically diverse (CaLD) groups are vulnerable to homelessness in Australia; however, this group is not currently recognised in the WA Strategy to End Homelessness. This project will explore insights from CaLD people regarding homelessness prevention, and barriers and enablers to accessing homelessness services for both themselves and their communities in the Perth metropolitan area. It will also review the appropriateness of current homelessness evaluation tools for CaLD groups in Australia.

The research objectives are to:
- examine perceptions of homelessness prevention from CaLD people;
- explore barriers & enablers to accessing homelessness services amongst CaLD people;
- review the appropriateness of homelessness evaluation tools for CaLD people; and
- develop recommendations for homelessness prevention resources and evaluation tools specifically designed for people from CaLD backgrounds and their communities.

This research will employ a mixed methods design. A literature review will be conducted to explore current homelessness prevention, service use, and evaluation methods for CaLD populations. Participants will be recruited from community organisations with established CaLD populations and will be invited to participate in qualitative data collection (e.g. semi-structured interviews or focus groups). A semi-structured discussion guide will be developed, pilot tested with the target group, and refined prior to implementation. Commonly used homelessness evaluation tools will be assessed for use in CaLD groups in an Australian context. It is anticipated that this will include validity and reliability testing of the Vulnerability Index – Service Prioritisation Decision Assistance Tool (VI-SPDAT) for use with CaLD populations in WA. VI-SPDAT is an evidence-informed tool used to assess acuity of homelessness and prioritise appropriate intervention.

The information from this research will assist with developing recommendations for homelessness prevention, service provision and evaluation for CaLD groups in WA.

ETHICS
Ethics approval required

SKILLS THAT WILL BE DEVELOPED
The student will develop skills in interview schedule design, participant recruitment, cultural awareness and qualitative data analysis. The student will have the ability to work within a research hub and with industry partners.

NECESSARY SKILLS/KNOWLEDGE
Requires a current drivers license and the ability to travel to regional Western Australia to collect data.
STORYTELLING FOR MENTAL HEALTH PROMOTION

SUPERVISOR/S
Dr Linda Portsmouth and Janine Ripper
Contact: L.Portsmouth@curtin.edu.au or janine.ripper@curtin.edu.au

PROJECT DESCRIPTION
The Act-Belong-Commit campaign will develop a series of storytelling testimonial videos as part of its social marketing strategy to encourage people aged 20-40 to take action to improve their mental health and wellbeing. They would like to know if video storytelling has greater impact than their current method of presentation of print/photo materials via social media.

The student will develop and pre-test videos, working closely with members of the target audience to identify the script elements most likely to enhance effectiveness. The student will also work closely with the individuals with lived experience who will be filmed sharing their stories. Support will be provided in the development of filming and video editing skills. This phase of the project will require the recruitment of participants for focus groups and qualitative data collection/analysis/reporting.

The student will then run a pilot project via Facebook comparing the impact of the storytelling videos with the current print/photo materials. This phase of the project will require the development of an online survey and quantitative data collection/analysis/reporting.

The outcomes from this project will contribute towards the evidence base for the Act-Belong-Commit mental health promotion campaign and will guide the campaign’s future social marketing strategy via social media.

ETHICS
Ethics approval has been granted to Act-Belong-Commit for resources development but an amendment will be need to be submitted for this specific project.

SKILLS THAT WILL BE DEVELOPED
Literature searching; development of best practice guidelines, developing and pretesting videos, participant recruitment; working closely with target audiences and storytellers; planning and conducting focus groups with qualitative data analysis of responses (using NVIVO); and online questionnaire design using Qualtrics and quantitative analysis of responses.

NECESSARY SKILLS/KNOWLEDGE
Excellent written and interpersonal communication skills. Experience as a user of social media
EVALUATION OF A TAILORED FEEDBACK INTERVENTION ON PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOURS

SUPERVISOR/S
A/Prof Jonine Jancey, Prof Deborah Kerr and Dr Rhiannon Halse
Contact: j.jancey@curtin.edu.au or d.kerr@curtin.edu.au or rhiannon.halse@curtin.edu.au

PROJECT DESCRIPTION
This project will analyse data from a 1-year “Tailored Online Diet and Activity (TODAY) study”. This 1-year randomized controlled trial (6-month intervention and 6-month follow-up) aimed to investigate whether a tailored intervention using mobile technology can improve diet and physical activity behaviours leading to weight loss in adults (aged 18-65 years) who are overweight or obese and recruited through a social marketing campaign (LiveLighter). Tailored feedback was delivered via email at seven time points, informed by objective activity (Fitbit Charge 2) assessment. At 6-months, participants completed an online process evaluation questionnaire to assess the extent the intervention reached the target audience. The aim of this Honours project is to evaluate participants’ perception of the tailored physical activity feedback (data already collected). The outcomes of this project will help inform physical activity messages used in social marketing campaigns and health promotion intervention.

ETHICS
Ethics approval granted

SKILLS THAT WILL BE DEVELOPED
The student will develop skills in analysing quantitative and qualitative data and gain a deeper understanding of health promotion research and behaviour change theory.

NECESSARY SKILLS/KNOWLEDGE
Background in health promotion would be advantageous.

Contact

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