



Government of **Western Australia**
Department of **Health**

Department of Health Western Australia Human Research Ethics Committee

Project Summaries for Approved Proposals

October to December 2016 Quarter

Project summaries for proposals approved by the Department of Health Human Research Ethics Committee – October to December 2016 quarter.

The material contained in this document is made available to assist researchers, institutions and the general public in searching for projects that have ethics approval from the Department of Health Human Research Ethics Committee (DOH HREC). It contains lay description/summaries available for the October to December 2016 quarter.

Project Title	The Epidemiology of Perinatal and Infant Mortality in WA, 1994-2013		
Principal Investigator	Dr Teresa Ballestas Barros		
Institution	Department of Health		
Start Date	Tuesday, 1 November 2016	Finish Date	Friday, 30 November 2018
<p>To assess the quality of perinatal and infant health care in Western Australia, this research will review the characteristics of deaths in babies under one year of age and admissions to the neonatal intensive care unit WA between 1994 and 2014. A separate analysis will be conducted on the characteristics of preterm birth to add information on the quality of care for this significant area of infant health. Linked data will be used.</p> <p>An analysis of the characteristics of deaths and hospitalisations will be conducted to present information on cause of deaths and admissions to level 3 neonatal intensive care units. The analyses will include statistical measures such as rates, frequency and proportions, trends. When appropriate, categories will be aggregated or multiple years of data combined to avoid small numbers and to provide more reliable statistics.</p> <p>A report will be produced to recommend future directions in clinical practice and policy development.</p>			

Project Title	The care coordination experiences of people living with rare diseases in Western Australia		
Principal Investigator	Ms Alicia Bauskis		
Institution	Department of Health		
Start Date	Friday, 14 October 2016	Finish Date	Monday, 30 January 2017
<p>People living with rare diseases (RD) often have complex and long term care needs requiring them to frequently see multiple clinicians across the spectrum of primary, secondary and tertiary healthcare in the private and public sectors, as well as accessing disability and social services. Ideally, their care is coordinated across this range of health and community settings so that: continuity and communication between health care providers is maintained; health service users can navigate the system; appointments and visits are well scheduled; health professionals are able to share information to ensure timely diagnosis, early intervention and ongoing care; tests are not unnecessarily repeated; and patients know who to contact for the advice and the support they need.</p>			

However there is limited information about the care coordination experiences of people living with RD in Australia. An Australian study exploring the healthcare experiences of Australians living with RD was undertaken via a survey with 810 Australian adults in July-August 2014. Nearly four in ten (38.8 %) respondents consulted three or more specialists for their ongoing care and treatment yet only 9.2 % had a designated care coordinator. This study indicates that there is an unmet need for care coordination services among the adult RD population. Further exploration of this is required as is the care coordination experiences of children with RD and of those who live in regional areas.

The present study aims to develop an understanding of the experiences of care coordination in Western Australia among people living with RD, identifying the core elements of care coordination and opportunities for improvement in care coordination. The study will conduct focus group discussions with three groups; adults with a RD or carers of adults with a RD; parents/caregivers of children with a RD; people from either of the first two groups who are from regional WA.

Focus groups will address the following research questions

RQ1: What are the care requirements of people living with RD?

RQ2: What do people living with RD (and/or their carers) expect from care coordination?

RQ3: What are people's experiences of care coordination?

RQ4: How can care coordination be best delivered to people living with RD? What can be done to improve care coordination?

The study is cognisant of policy developments in Australia including the establishment of Health Care Homes where care is coordinated people with complex and chronic conditions in the primary care sector.

Project Title	Alcohol use during aquatic activities; perspectives from Western Australian School Leavers [Short Title: Alcohol use, school Leavers and aquatic activities]		
Principal Investigator	Ms Stephanie Enkel		
Institution	Royal Life Saving Society of WA		
Start Date	Tuesday, 1 November 2016	Finish Date	Thursday, 1 June 2017
<p>Every year, thousands of recently graduated high school leavers converge on designated locations around Australia to celebrate the end of their school exams and secondary school experience while preparing for the next stage of their lives. These Leavers events, while generally providing fun and safe opportunities for youth to party, are frequently plagued by alcohol and drug use, unsafe sex, fights, injuries and hospitalisations that affect the wellbeing of ex-students; climaxing in the death of a young Queensland girl in 2010 during her Leavers week. Many governmental and non-governmental services exist to service the Leavers week while ensuring overall safety, but are frequently limited by a lack of direction in where and how to best deliver resources.</p> <p>The Royal Life Saving Society in Western Australia (WA) coordinates the Don't Drink and Drown program with an aim to reduce drownings associated with alcohol statewide. Approximately 25% of WA drownings in the 15-24 age group are associated with alcohol, the</p>			

highest rate nationally. With Leavers events generally occurring around water and with an emphasis on aquatic activities, there is a strong need to better understand how much alcohol those attending Leavers festivals are consuming, the locations in which they drink and the activities they partake in whilst consuming alcohol. A better understanding of these variables will allow for more targeted health promotion with the potential to develop new and innovative methods to approach the population under interest.

This investigation will take the form of a multi-modal study, utilising both quantitative and qualitative research methods. A survey will be distributed to Leavers in Dunsborough WA, assessing the prevalence of alcohol consumption, quantifying amounts of liquor consumed and attitudes towards drinking in and around water. The results from this survey will be explored further through qualitative focus groups with Leavers post the event in a casual and welcoming environment, where participants will be invited to share their perspectives, attitudes and behaviours in regards to alcohol and aquatic activity in a non-judgmental environment.

Don't Drink and Drown is funded by the WA Department of Health. While a separate investigation, the results compiled from this study will contribute greatly to the 2016-17 evaluation report provided to the Department in July 2017. Data obtained will be property of the WA Department of Health.

Project Title	Influence of physical activity, obesity and smoking on survival after a prostate cancer diagnosis [SHORT TITLE: Lifestyle factors associated with prostate cancer survival]		
Principal Investigator	Dr Terry Boyle		
Institution	Curtin University		
Start Date	Sunday, 1 January 2017	Finish Date	Monday, 31 December 2018
<p>In this study we will investigate whether lifestyle factors (such as physical activity, obesity and smoking) and demographic factors (such as age, socioeconomic status and occupation) are associated with overall survival and disease-specific survival in males diagnosed with prostate cancer.</p> <p>While few published studies have examined the effect of lifestyle factors on prostate cancer survival, the limited research to date indicates that physical activity is associated with lower overall mortality and prostate cancer mortality. We will follow up a cohort of prostate cancer cases who participated in a case-control study in 2001-2002 in Western Australia.</p> <p>Information about data and cause of death (up to the latest data available) will be obtained by linking the cases to the WA Cancer Registry and the WA mortality registry.</p>			

Project Title	Implementation of evidence based guidelines for the management of atrial fibrillation (AF) via an electronic clinical governance management system [SHORT TITLE: Management of AF]		
Principal Investigator	Dr Brendan McQuillan		
Institution	Sir Charles Gairdner Hospital		
Start Date	Saturday, 15 October 2016	Finish Date	Monday, 18 June 2018
<p>Atrial fibrillation is an irregular heart rhythm that is common and a major contributor to illness, death and WA health costs through hospitalisation (including strokes, blood clots, worsening heart symptoms, weakening of heart function) and long stays in-hospital that often require additional treatment with drugs known to increase the risk of bleeding.</p> <p>There is currently an evidence-treatment gap in the prescription of drugs for this irregular heart rhythm that results in patients at high risk of stroke not receiving preventive treatment and low risk patients receiving drug therapy that increases their bleeding risk unnecessarily. More appropriate prescription of drugs would reduce hospitalisation due to stroke and bleeding events.</p> <p>This study has developed software to support doctors in delivering the best care in-hospital for this irregular heart rhythm. This increases the benefit to the patient and lowers the chance of a stroke or an episode of bleeding.</p>			

Project Title	Inter-pregnancy interval, obstetric/morbidity history and adverse pregnancy outcomes [SHORT TITLE: Obstetric history and adverse outcomes]		
Principal Investigator	Dr Gavin Pereira		
Institution	Curtin University		
Start Date	Sunday, 1 January 2017	Finish Date	Friday, 31 December 2021
<p>This study will investigate the link between intervals between pregnancy, history of pregnancy complications, historical risk factors and the associated risk of harm to children and mothers in WA, NSW and the ACT. Examples of the primary pregnancy outcomes that will be investigated are mortality, gestational length, congenital anomaly and fetal growth restriction.</p>			

Project Title	IMPROVE - Investigating Medication re-Purposing to Reduce risk of Ovarian cancer and Extend survival		
Principal Investigator	Dr Susan Jordan		
Institution	QIMR Berghofer Medical Research Institute		
Start Date	Thursday, 1 June 2017	Finish Date	Monday, 1 June 2020
<p>Fewer than half of women diagnosed with ovarian cancer survive more than 5 years and only 7% of ovarian cancers can be attributed to currently identified modifiable exposures, making</p>			

this one of the least preventable cancers in women. Given the substantial burden that these cancers place on women and our health services, increasing the opportunities for prevention is a priority. Recent evidence suggests that a number of commonly used medications may have chemopreventive actions in addition to their use in treating chronic disease. Such associations can be examined in traditional case-control and cohort studies, but these methods have limitations. For example, self-report of medication use may not be reliable; there is limited information on duration of medication use; recall bias can be problematic; and there are often small numbers of both exposed participants and cancer cases. Large-scale data linkage studies can overcome these problems although one limitation can be the lack of sufficient information on potential confounders.

The overall objective of this project is to investigate associations between specific chronic disease medications and gynaecological cancer risk and survival in order to identify new potential avenues for gynaecological cancer prevention and treatment. We will achieve this through national linkage of data from the Pharmaceutical Benefits Scheme, the Australian Cancer Database and the National Death Index. Potential associations will be assessed using a subset of these data linked to more detailed health information collated by state-based data linkage units including the Western Australian Data Linkage Branch. Our study will generate the high-quality evidence necessary to inform the design of prevention trials in women at high risk of ovarian cancer, and trials of adjunctive treatment in women diagnosed with this cancer. Our findings will also have the potential to inform prescribing choices for women from the general population needing treatment for other chronic disease.

Project Title	Alcohol related harm in young people		
Principal Investigator	Dr Melissa O'Donnell		
Institution	Telethon Kids Institute		
Start Date	Sunday, 1 January 2017	Finish Date	Sunday, 31 October 2021

Alcohol-related harm is a public health issue in Australia, with young people the most likely to consume alcohol at levels of high risk and be admitted to hospital for alcohol-related harm. This research aims to inform harm prevention and minimisation strategies by investigating outcomes and points for early intervention in young people with alcohol-related harm. These outcomes include: alcohol-related emergency department presentations and hospital admissions; mental health outcomes; and corrective services involvement in alcohol-related violence. We will also investigate the effect of changes in alcohol availability and policies on alcohol-related harm in young people.

This is a population level study of all individuals born 1980-2005, aged 10-25 years during the period 1990-2015. Alcohol related incidents will be identified using the linked police incidents, emergency department presentations, hospital admissions, ambulance response, mental health contacts and deaths. We will investigate the outcomes for young people involved in alcohol related harm including further readmissions, subsequent death, as well as any police, or courts involvement.

To investigate risk and protective factors of alcohol-related harm we will use the entire cohort's individual, family and community level factors, to firstly investigate precursors such as mental health, courts, education, drug and alcohol and child protection as well as their outcomes for those with and without alcohol-related harm.

This is necessary to determine whether risk and protective factors and outcomes are unique to those with alcohol-related harm in comparison to the general population to enable targeted prevention or intervention.

Project Title	Pertussis Vaccination in pregnant women: a cohort study to evaluate vaccine safety and effectiveness in Western Australia		
Principal Investigator	Dr Annette Regan		
Institution	Curtin University		
Start Date	Thursday, 1 December 2016	Finish Date	Tuesday, 31 December 2019
<p>Approximately one in 200 infants under the age of six months who contract pertussis, also known as 'whooping cough', will die from pneumonia or brain damage. Whooping cough is particularly serious in infants <4 months who are too young to have received at least two doses of pertussis-containing (dTpa) vaccine. Recent evidence suggests that pertussis vaccination of pregnant mothers can prevent up to 91% of infections in infants <3 months.</p> <p>In April 2015, an antenatal pertussis vaccination program was initiated in Western Australia, offering free diphtheria-tetanus-acellular pertussis (dTpa) vaccine to pregnant women in their third trimester. This investigation aims to evaluate the health benefits to infants in Western Australia provided by vaccinating mothers for pertussis as well as the long-term safety profile of immunising pregnant women against pertussis in third trimester.</p>			

Project Title	Association between rates of opioid prescribing and opioid-related deaths in Western Australia		
Principal Investigator	Mr Michael Moltoni		
Institution	Mental Health Commission		
Start Date	Sunday, 1 January 2017	Finish Date	Friday, 30 June 2017
<p>The aim of the project is to examine the association between the rates of opioid prescriptions and opioid related deaths in Western Australia (WA). Previous research in Australia and overseas has indicated that as rates of opioid prescribing have increased so too have the rates of opioid-related deaths. This is of importance in Australia, as the use of opioids for medical purposes per capita is far higher in Australia than globally.</p> <p>For this project, coronial data will be obtained from the National Coronial Information System and prescription data will be obtained from the Department of Health, WA Monitoring Drugs of Dependence data base. Data will be for Western Australia and will be analysed using correlational analysis.</p>			

Project Title	Use of eye care services in Western Australia		
Principal Investigator	Dr David Preen		
Institution	The University of Western Australia		
Start Date	Monday, 31 October 2016	Finish Date	Tuesday, 31 December 2019
<p>This study will examine trends and patterns of eye services in Western Australia (WA) between 1990 and 2013 using previously extracted de-identified hospital morbidity data from the Department of Health WA.</p> <p>Understanding the trends in use of eye care is important for future workforce and resource planning of health services. Identifying under-serviced groups will enable services to be better targeted to meet the needs of the entire community. We intend to use data originally provided for a previous project (HREC reference 2011/14). Due to delays with data provision for this prior project not all of the study's objectives were fulfilled and our plan is to undertake further analysis of those data, as approved in the previous application, to create further knowledge and benefits without additional cost.</p>			

Project Title	Using linked population data to investigate the impact of intimate partner violence on children's outcomes		
Principal Investigator	Dr Rebecca Glauert		
Institution	Telethon Kids Institute		
Start Date	Tuesday, 8 November 2016	Finish Date	Thursday, 1 October 2020
<p>Intimate Partner Violence (IPV) is abuse perpetrated by a current or former intimate partner in the form of physical, emotional, financial or sexual abuse. IPV is a major public health concern, with approximately one in four Australian women facing IPV in their lifetime. IPV perpetrated against women has been reported to cost the Australian nation \$13.6 billion annually. It is predicted that by 2021 this figure is likely to rise to \$15.6 billion if further interventions aren't taken to combat the issue.</p> <p>In Australia it has been reported that 61% of women who were victims of IPV in their home had children in their care. Children's exposure to IPV includes witnessing and hearing acts first hand, as well as the effects of living in the aftermath of the incident(s). Whilst many studies have investigated the impact of IPV on women, few have been able to study the impact that exposure to IPV has on outcomes for children also living in the home.</p> <p>A longitudinal retrospective cohort design will be used to explore the outcomes of Western Australian (WA) children, born 1987-2010, who were exposed to IPV. The IPV will be identified by data from WA Police as an alleged domestic offence by a male (former or current) partner, against the child's mother, where the male has been charged for homicide, threatening behaviour, assault and/or sexual assault, in the period 2004-2008. Whole-population administrative data from Western Australian Police, Health, Education, and Child Protection and Family Support will be linked by the WA Data Linkage Branch using best-practice probabilistic matching techniques.</p> <p>De-identified data sets will be merged and analysed to explore the impact that exposure to</p>			

IPV has on children's outcomes in mental and physical health, birth, education, child protection involvement and corrective services involvement compared to the general population.

This innovative approach will be the first to use linked population-based administrative data to examine multiple outcomes for children exposed to IPV, address existing gaps in the literature and importantly, have the potential to impact policy and practice at the state and national levels.

Project Title	Does continuity of primary care reduce demand on emergency department presentations and hospital admissions? [SHORT TITLE: Continuity of primary care]		
Principal Investigator	Associate Professor Rachael Moorin		
Institution	Curtin University		
Start Date	Monday, 12 December 2016	Finish Date	Thursday, 31 December 2020

Continuity of care is an important aspect of the coordination or integration of primary care services. In Australia, as in several other countries, one of the key strategies to address drivers of both system costs and health outcomes in the management and prevention of chronic disease has been a focus on strengthening the role of primary health care. The overall aim of this project is to use whole-population Commonwealth and State linked person-level data to evaluate the influence of patterns of primary care contact on emergency departments (ED) visits and potentially preventable hospitalisations for patients with a range of national priority chronic/complex conditions including diabetes, congestive heart failure, chronic obstructive pulmonary disease and asthma.

The Australian Government has introduced programs and policies aimed at strengthening the primary care offered to individuals. These policies aim in part to influence patterns of primary care contact, though the evidence regarding the impact of patterns of primary care is limited.

This is a whole of population study including all those individuals registered with Medicare Australia, resident of Western Australia, and aged 18 or over at any point from 2005 to the present. As this project is observational, utilising linked administrative health data, there will be no participation required from those included in the study population.

The project will use Commonwealth Medical Benefits Scheme claims data and state health person-level hospital admissions and ED data. Clinical cohorts for analysis will be identified based on diagnostic information in hospital records and MBS data. Exposures, i.e. patterns of primary care, will be identified for each individual based on MBS data. "Patterns of primary care" will include continuity of care (same GP/same clinic) and regularity of contact (i.e. consistent, proactive vs sporadic, reactive GP contacts). Outcomes of interest will include numbers, LOS and costs of hospital and ED services as identified in state health data.

The impacts of patterns of primary care on outcomes of interest, among specific population groups, will be ascertained using regression modelling techniques. The influence of socio-demographic factors on patterns of primary care and hospital/ED outcomes will be explored.

This project will generate important evidence concerning the relationship between patterns of primary care and hospital use. This will enable primary care policies to be better targeted in terms of the aspects of primary care that should be modified, and the population groups

amongst whom the potential benefit is greatest.

Project Title	Multi-country investigation of influenza vaccine effectiveness in preventing hospitalisation and other adverse outcomes associated with influenza among pregnant women [SHORT TITLE: Influenza vaccine effectiveness in pregnant women]		
Principal Investigator	Professor Paul Effler		
Institution	Department of Health		
Start Date	Thursday, 15 December 2016	Finish Date	Saturday, 31 December 2016
<p>Pregnant women are the highest priority group for seasonal influenza vaccination programs. However, there is limited published data estimating the effectiveness of seasonal influenza vaccine in preventing serious disease caused by laboratory-confirmed influenza in pregnant women. Because of these limited data, developed countries have not been able to appropriately evaluate their vaccination programs, and in developing countries, seasonal influenza vaccine has gone unfunded.</p> <p>Influenza virus can change from year to year, which causes variation in the effectiveness of seasonal influenza vaccines. It is therefore important to estimate vaccine effectiveness annually. Because pregnant women represent a small subset of the population and the number of laboratory-confirmed infections from year to year is small, this makes it unlikely that individual countries in isolation will have sufficient data to address this evidence gap.</p> <p>We aim to pool data with several other countries in order to accurately estimate the impact of inactivated influenza vaccination during pregnancy. Results from this study will be used to inform local and international vaccine programs.</p>			

Project Title	Evaluation of the Medibank Health Solutions Integrated Healthcare Service Model of Care Initiative [SHORT TITLE: Medibank Integrated Healthcare Evaluation]		
Principal Investigator	Professor David Preen		
Institution	The University of WA		
Start Date	Saturday, 1 July 2017	Finish Date	Tuesday, 31 December 2019
<p>This study involves an evaluation of the CarePoint Integrated Healthcare Services program. The Program is designed to improve health care delivery and integration of health services for patients with chronic health conditions and complex and/or multidisciplinary care needs who are recurrent high users of the health system.</p> <p>This impact of the CarePoint Program on patients' health outcomes, health service use and associated costs (relating to hospitalisations, emergency department attendances, and mental health services) will be evaluated using a combination of data linkage and survey data collection.</p>			

Project Title	Renal Demand Modelling Project		
Principal Investigator	Dr Henry Moody		
Institution	Department of Health		
Start Date	Tuesday, 15 November 2016	Finish Date	Tuesday, 31 August 2027
<p>The Renal Demand Modelling Project (the project) aims to achieve a more accurate, valid and reliable dataset for renal service planning across Western Australia (WA) to reduce the risk of over- or under-spend on services, and inaccuracies in satellite locations and levels of service.</p> <p>This will be achieved through combined analysis of data from:</p> <ol style="list-style-type: none"> 1. the five major WA pathology laboratories (PathWest, Clinipath Pathology, Western Diagnostic Pathology, Perth Pathology and St John of God Pathology); 2. Australia and New Zealand Dialysis and Transplant (ANZDATA) Registry and; 3. the mortality register. <p>The combined analysis of this data will help track the progression of kidney disease to determine current rates of those receiving renal replacement therapy (RRT - defined as those receiving dialysis or transplantation) and those progressing to need RRT.</p> <p>Projections will predict geographical future need for RRT based on current progression.</p>			

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