

## **Human Research Ethics Committee**

Project Summaries for Approved Proposals

July to September 2014 Quarter

## Project summaries for proposals approved by the Department of Health Human Research Ethics Committee - July to September 2014 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 July to September 2014 quarter.

Project Title	Are total hip and knee replacements associated with an increased cancer risk? A nationwide cohort study		
Principal Investigator	Professor Stephen Graves		
Institution	University of Adelaide		
Start Date	9 July 2014 Finish Date 31 December 2016		

The number of total hip and knee replacements has increased steadily worldwide. There are concerns for total joint replacement, particularly metal-on-metal hip prosthesis, to be associated with increased risk of cancer. It is proposed that a nationwide cohort study be undertaken to examine this. This study will investigate the potentially significant adverse consequence of total joint replacement and inform clinical practice about the appropriate care for patients with total joint replacement.

Project Title	Personal alarms - expectations and outcomes			
Principal Investigator	Professor Gill Lewin			
Institution	Silver Chain			
Start Date	1 October 2010	1 October 2010 Finish Date 1 July 2015		

This project explores the use of a user-pays personal alarm service by older people. This research examines the decision making process, the older person's involvement in, and the reasons behind the decision to purchase or not to purchase an alarm service. It compares the risk profiles of the individuals with an alarm service with those of the individuals who did not sign up for the service. It also looks at the outcomes over a one year period in terms of: speed of receiving assistance in an emergency, likelihood of having a long life, overall wellbeing, social isolation and ability to remain living independently in the community.

Project Title	Risks and benefits of breast cancer screening: BreastScreen WA cohort study of overdiagnosis and breast cancer mortality		
Principal Investigator	Professor Dallas English		
Institution	University of Melbourne		
Start Date	9 July 2014 Finish Date 31 December 2016		

Breast cancer screening aims to detect cancers before they become symptomatic. Some breast cancers found by screening would never have caused symptoms in a woman's lifetime. Because these cancers cannot be distinguished from cancers that would have caused symptoms, some women are treated without benefit.

The study will estimate how much breast cancer detected by screening would never have caused symptoms. The reduction in risk of dying from breast cancer due to screening will also be estimated.

The study will be conducted on all women who were born between 1920 and 1945 and on the Western Australian Electoral Roll during the period 1989 to 1995. From the WA Data Linkage System, the following will be determined: whether they attended screening, were diagnosed with breast cancer or died. This information will be used to calculate how many women died from breast cancer and how many women were diagnosed with breast cancer. Subsequently, the number of additional cases of breast cancer diagnosed and the number of deaths prevented as a result of attendance at BreastScreen will also be calculated. Finally, the ratio of harms to benefits will be calculated, which is the number of additional breast cancers diagnosed to prevent one death from breast cancer.

Project Title	Pregnancy associated breast cancer in the Western Australian population: how does time from conception to breast cancer diagnosis affect survival?		
Principal Investigator	Associate Professor Angela Ives		
Institution	University of Western Australia		
Start Date	9 July 2014 Finish Date 9 July 2017		

Pregnancy associated breast cancer (also known as gestational breast cancer) is defined as breast cancer diagnosed when a woman is pregnant or in the first twelve months after completion of a pregnancy (postpartum). A previous research project identified that women diagnosed with breast cancer during pregnancy have a similar prognosis to women who are not pregnant at breast cancer diagnosis. However, women diagnosed with breast cancer in the first 12 months after completing a pregnancy were 50% more likely to die than all other young women diagnosed with breast cancer.

This study will firstly update deaths for women in the dataset and then a more detailed analysis will be undertaken to further investigate if the amount of time a woman is pregnant (plus any additional time postpartum up to twelve months) before a breast cancer diagnosis is made has any impact on survival for these women.

Project Title	Survival from uveal melanoma in Western Australia 1981-2005		
Principal Investigator	Dr Avenell Chew		
Institution	Sir Charles Gairdner Hospital		
Start Date	9 July 2014 Finish Date 31 December 2014		

Uveal melanoma is the most common primary malignant tumor affecting the eye. This project aims to describe the survival rates of patients with a diagnosis of uveal melanoma diagnosed between 1981-2005 in Western Australia. The cohort will be grouped according to specific patient and tumor characteristics to investigate the impact of these on survival.

Project Title	10 year outcomes of an emergency department delivered brief intervention with adolescent alcohol and other substance users		
Principal Investigator	Professor Gary Hulse		
Institution	The University of Western Australia		
Start Date	1 July 2014	Finish Date	1 October 2015

The current project seeks to assess the long-term (at least 10 years) impact of an intervention approach (called "brief intervention", BI) on the utilisation of WA Health services. The mentioned BI was aimed at facilitating treatment referrals and improving follow-up attendances in the community for patient participants, who were adolescents aged 12-19 years, and who presented at Perth hospitals' emergency departments with alcohol or other drug (AOD) related conditions between 1999 and 2002. The original study was randomized, such that 60 adolescent patients received the BI, and 67 other adolescents received usual care.

Project Title	Investigating vaccine safety via cross-jurisdictional data linkage of the Australian Childhood Immunisation Register with hospital morbidity data (Western Australian component)		
Principal Investigator	Associate Professor Michael Gold		
Institution	University of Adelaide		
Start Date	9 July 2014	Finish Date	31 December 2016

The continuing success of Australia's immunisation programs relies not only on optimising immunisation coverage but also ensuring mechanisms are in place to identify potential safety issues. One area of immunisation safety involves the recognition of adverse events following immunisation. Australia's current system of monitoring immunisation adverse events relies on voluntary reports being submitted by health professionals, to the Commonwealth Government. An alternative mechanism used routinely in the United States involves 'linking' administrative datasets. The objective of this project is to investigate the feasibility and application of linking the Australian Childhood Immunisation Register to health service data collections from five States for the purpose of vaccine safety monitoring.

Project Title	Effect of formal multidisciplinary discussion on the management and survival of people newly diagnosed with colorectal cancer		
Principal Investigator	Dr Claire Johnson		
Institution	St John of God Hospital		
Start Date	9 July 2014	Finish Date	1 June 2016

This study aims to provide evidence to support appropriate access to, and utilisation of, multidisciplinary team meetings (MDMs) in the management of people diagnosed with colorectal cancer (CRC) and to improve compliance with best practice guidelines. To achieve this, the study will determine if patients with CRC who have been discussed at MDMs have better survival and receive treatment adherent to the clinical guidelines when compared to those who were not discussed at MDMs.

Project Title	Hospitalisations for oral/dental reasons in children in Western Australia			
Principal Investigator	Professor Linda Slack-Smith			
Institution	University of Western Australia			
Start Date	9 July 2014	Finish Date	9 July 2017	

This project will investigate admission of children to hospitals in Western Australia for dental reasons, including most disorders of the oral cavity. The outcome will be substantial new knowledge regarding oral health and use of hospital services, including detailed data describing patterns of dental admissions and factors associated with such admissions. This will assist in monitoring different groups in the community and developing approaches for prevention of dental disease. It will also inform health policy and future international and local research.

Project Title	Improving the detection of disadvantaged Australians at high risk of cardiovascular disease		
Principal Investigator	Dr Kathryn Backholer		
Institution	Baker IDI Heart and Diabetes Institute		
Start Date	13 August 2014	Finish Date	1 October 2016

In Australia cardiovascular disease follows a social pattern, such that individuals living with greater disadvantage are more likely to experience a heart attack or stroke than more socially advantaged people. Risk prediction tools are commonly used to detect individuals who are at high risk of cardiovascular disease, and who may therefore benefit from preventive treatment. However, current risk tools in Australia do not take into account the independent risk associated with a lower social position, resulting in reduced prioritisation of preventive treatment among individuals who need it most, and potentially exacerbating health inequalities. This project proposes to use pooled Australian cohort data to develop and validate an Australian risk prediction tool for identifying individuals at high risk of cardiovascular disease mortality, which will include a measure of social deprivation. The development, validation and implementation of this Australian cardiovascular disease risk prediction score will likely improve cardiovascular disease risk estimation for all Australians, and will importantly better discriminate risk among more socially deprived groups. Improved assessment and consequent intervention for disadvantaged Australian's may reduce unnecessary cardiovascular events and premature deaths as a result of unfair and ineffective risk estimation, and thereby reduce the socioeconomic disparities in cardiovascular disease within Australia.

Project Title	Liver cancer stem cells increase the risk of hepatocellular carcinoma			
Principal Investigator	Professor John Olynyk			
Institution	Fremantle Hospital			
Start Date	13 August 2014	13 August 2014 Finish Date 31 July 2017		

This study aims to find out if increased numbers of liver progenitor cells / cancer stem cells can lead to an increased risk of future development of hepatocellular carcinoma. Hepatocellular Carcinoma is primary liver cancer.

Project Title	National mental health costing study		
Principal Investigator	Mr Guiseppe (Joe) Scuteri		
Institution	Health Consult		
Start Date	12 February 2014 Finish Date 30 April 2015		

This study is a "mental health costing study" which will inform the development of the Australian Mental Health Care classification. The costing study will generate a dataset on mental health services and costs that will be used to develop a classification system for mental health services.

The study will involve the collection of activity and cost data over a six month period (1st July 2014 to 31st December 2014) at 25 sites across Australia including a mix of public hospitals, community mental health services, and three private hospitals.

The data will be largely drawn from pre-existing data collections including the Admitted Patient Mental Health Care National Minimum Data Set, Community Mental Health Care National Minimum Data Set, Residential Mental Health Care National Minimum Data Set, Mental Health Establishments National Minimum Data Set, and the National Outcomes and Casemix Collection (NOCC), with the exception of four new data elements (first recent episode of mental health care, phase of care, number of specialling hours and mental health care intervention). Three of the four new elements were identified by a previous study undertaken for IHPA (by the University of Queensland) as key cost drivers of mental health services and are considered important to inform the development of the Australian Mental Health Care classification.

Project Title	Incidence and case fatality in myocardial infarction: trends and risk factors		
Principal Investigator	Associate Professor James Boyd		
Institution	Curtin University of Technology		
Start Date	13 August 2014	Finish Date	30 June 2015

This Project seeks to explore survival rates (both short and long term) for patients admitted with acute myocardial infarction in Western Australia, including how survival rates have changed over time. The effect of age, sex and socioeconomic factors on survival will also be explored. The study will use the methodology adopted in the Studies using Linked ISD Data for Epidemiology, which have published results for Scottish patients admitted with acute myocardial infarction. The final component of this study will be an international comparison of survival rates for myocardial infarction.

Project Title	An assessment of bicycle helmet legislation on cyclist head injuries in Western Australia		
Principal Investigator	Associate Professor Jake Oliver		
Institution	The University of New South Wales		
Start Date	1 August 2013	Finish Date	31 December 2015

The aims of this study are to:

- examine trends in bicycle-related head injury hospitalisations in Western Australia between 1970 and 2013;
- evaluate any effect the bicycle helmet law had on this trend; and
- assess issues with modelling the proportion of injuries over time since the denominator is clearly not constant or known beforehand.

Previous research using the WA data did not control for serial correlation which may lead to incorrect conclusions. Additionally, the primary comparison (head injuries for cyclists and pedestrians) may be influenced by changes in cycling safety that is unrelated to cyclists. This study will address these concerns through an interrupted time series approach and to develop statistical methods for that purpose. Unit record injury data will be obtained from the Department of Health in Western Australia.

Project Title	Fourth study of mortality and cancer incidence in aircraft maintenance personnel		
Principal Investigator	Ms Kyleigh Heggie		
Institution	Department of Veterans' Affairs		
Start Date	1 June 2013	Finish Date	31 December 2014

This study will examine the incidence of mortality and cancer of F-111 aircraft fuel tank maintenance workers involved in the Deseal / Reseal programs at the Royal Australian Airforce base at Amberley, Queensland, between 1977 and 2000. This study will involve analysis of data for DSRS personnel compared to the Australian population, and also two comparison groups from those who served at RAAF Base Amberley and RAAF Base Richmond.

Project Title	Mammographic density as a predictor of breast cancer risk and mortality in Western Australian Aboriginal women		
Principal Investigator	Associate Professor Jennifer Stone		
Institution	The University of Western Australia		
Start Date	1 June 2012	Finish Date	31 December 2014

Mammographic density is one of the strongest predictors of breast cancer risk. Little is known about the variation of mammographic density in Aboriginal and Torres Strait Islander women. Improving breast cancer screening and outcomes for Western Australian Aboriginal women is a priority for BreastScreen WA and this study has formulated research questions to fill significant gaps in knowledge regarding mammographic density as predictor of breast cancer risk and mortality in Aboriginal women.

**Note**: minor amendments have been made to summaries to comply with Department of Health *WA Health Writing Style Guide* 

