



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

Department of Health Western Australia Human Research Ethics Committee

Project Summaries for Approved Proposals

July to September 2019 Quarter

Project summaries for proposals approved by the Department of Health Human Research Ethics Committee – July to September 2019 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 of projects approved in the July to September 2019 quarter.

Project Title	Exposure-dependent effectiveness of mumps vaccination		
Principal Investigator	Mr Darren Westphal		
Institution	Department of Health, Public and Aboriginal Health, Communicable Disease Control		
Start Date	14 August 2019	Finish Date	30 June 2020
<p>In countries where mumps vaccination is routine, the concentration of recent mumps outbreaks in vaccinated, ethnically-distinct subpopulations has raised questions about exposures in these communities that might permit transmission. An observation from recent outbreaks in well-vaccinated Australian Aboriginal communities and Marshallese migrant communities throughout the United States has been that the affected populations experience high rates of crowding in comparison to the surrounding populations.</p> <p>The aim of this study is to develop a mathematical model recapitulating the observed time course of mumps incidence among individuals of differing age, vaccination status, and Aboriginal or non-Aboriginal ethnicity. This hypothesis has not been formally substantiated in any disease-specific context as yet, nor has it been accounted for in approaches taken by epidemiologists to measure vaccine effectiveness.</p>			

Project Title	Long-term outcomes after trauma in Western Australia: The determinants of morbidity and mortality after major trauma		
Principal Investigator	Dr Lai Kin Yaw		
Institution	Royal Perth Hospital		
Start Date	19 July 2019	Finish Date	30 July 2022
<p>Injury accounts for significant morbidity and mortality worldwide, and the cost of care for traumatic injury is staggering. Trauma most commonly affects young people with little pre-existing diseases. Severely injured patients have a higher cumulative mortality in the years following the initial trauma admission. Of these patients, many sustain trauma involving several body systems and are likely to have a prolonged disability. As such, previous studies have described complications such as significant impairment which included inability to return to previous level of activity, late trauma deaths, suicide and discharge to nursing homes. To date, there is a lack of research looking at the long-term outcome of trauma patients. The aim of this study is to assess the long-term mortality and morbidity outcomes of trauma patients and to determine factors that are associated with adverse long-term outcomes. This information will be vital for ongoing care and management of trauma patients by understanding the long-term burden of disease of trauma sequelae and design interventions in order to reduce preventable morbidities.</p>			

Project Title	The clinical and economic benefits of early use of clozapine in first episode schizophrenia		
Principal Investigator	Professor Alexander John		
Institution	University of Western Australia and Bentley Health Service		
Start Date	3 September 2019	Finish Date	31 August 2021
<p>The aim of this study is to evaluate the clinical and economic benefits of early initiation of clozapine in people with schizophrenia who are not responding adequately to treatments with usual antipsychotics. Nearly 20% of the patients with first episode schizophrenia (FES) have Treatment Resistant Schizophrenia (TRS) and clozapine is the only approved medication for this condition. Clozapine is more effective than other antipsychotics for controlling the psychotic symptoms, aggression and suicidality in people with TRS.</p> <p>Through a retrospective study utilising data linkage and analyses, differences in hospital admissions, emergency department visits, mortality of TRS patients managed on clozapine (n=270) and other antipsychotics (n=230) at three different WA mental health services and three headspace sites will be calculated. The information will also be utilised for complex health economics analyses and long term modelling to calculate potential savings to the WA health system through appropriate and early prescription of clozapine in FES. Translation of the findings into clinical practice is planned through collaboration with policy developers.</p>			

Project Title	West Australian SMART application of blood culture initiative (WASABI): Improving the management of patients with serious infection and reducing low value care		
Principal Investigator	Associate Professor Susan Benson		
Institution	PathWest and Sir Charles Gairdner Hospital		
Start Date	14 August 2019	Finish Date	28 August 2021
<p>West Australian SMART application of blood culture (WASABI) will use de-identified information from routine blood cultures to apply big data analytics and modelling to examine variation and changes over time retrospectively and then prospectively. This information will be used to derive measures of efficiency and effectiveness of patient care. The WASABI insights will be shared with clinical teams to provide ongoing feedback to drive improvements during the study. The study framework anticipated organisational changes and economic impact will be incorporated into the study evaluation. WASABI is expected to improve the care of 25,000 patients annually with savings of \$1.7million each year.</p> <p>The project team brings together expertise from frontline clinical staff in acute care, adult and paediatric medicine and pathology along with health consumers, academics from data science, pathology informatics, health service research, economics, and organisational behaviour.</p> <p>The WASABI team's vision is for a data-driven, clinician-led, state-wide learning health system that embeds continuous learning, quality improvement and health service research into routine care. WASABI is an international exemplar addressing a high priority clinical issue and has the potential for wider application as a framework for high quality and sustainable health systems.</p>			

Project Title	Visual field impairment and injury: a population-based study		
Principal Investigator	Professor Lynn Meuleners		
Institution	University of Western Australia		
Start Date	24 September 2019	Finish Date	31 December 2022
<p>Visual field loss in older Australians causes significant health, economic and societal burdens. This innovative study will be the first of its kind to link a large scale ophthalmic database of visual field tests to population based police reported crash data, hospitalisation, death and trauma data in people aged 60 years and older. The hypothesis of this study is “the severity and location of visual field loss significantly influences the risk from falls, motor vehicles crashes and other injuries in older adults”. It is anticipated that the findings from this study will contribute to injury prevention, education and will have policy implications for adults with visual field loss at the local, national and international level.</p>			

Project Title	Measles cases that have previously received any measles-containing immunisations: Infectivity, clinical characterisation and reasons for an apparent rise in incidence.		
Principal Investigator	Dr Benjamin Scalley		
Institution	Department of Health		
Start Date	24 September 2019	Finish Date	31 December 2020
<p>The proportion of measles cases that have previously been vaccinated has increased in Western Australia (WA) in recent years. Since the beginning of 2018 until January 2019, 13 cases of measles were notified in WA that had previously received two measles-containing immunisations.</p> <p>This project seeks to improve understanding of the epidemiology of measles in WA and Australia-wide, specifically, with regard to immunity and infectivity. These findings may inform policy, service provision, prevention strategies and other public health interventions for both WA and Australia-wide.</p> <p>The key aims of this project are:</p> <ol style="list-style-type: none"> (1) To ascertain if there is any evidence for the declining immunity against measles vaccination (2) To compare those vaccinated and those not vaccinated for measles, in terms of clinical (signs and symptoms) and laboratory aspects and also as well as their infectivity and what proportion results in secondary and tertiary cases (3) To examine the possible reasons for the apparent increase in cases of measles in people who have been previously vaccinated. 			

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