Department of Health Western Australia Human Research Ethics Committee

Project Summaries for Approved Proposals

July to September 2021 Quarter

Project summaries for proposals approved by the Department of Health Human Research Ethics Committee – July to September 2021 guarter.

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 2021 quarter.

Project Title	RGS 4623: Diagnosing Innovation: A Human-centred design approach to cultivate innovation in the Western Australian Public health System.		
Principal Investigator	Dr Christopher Kueh		
Institution	Edith Cowan University		
Start Date	6 th of July 2021	Finish Date	31st of July 2022

This research project is the first phase of a multi-year research project collaboration between Edith Cowan University and the Department of Health, WA.

The research study will use design-led research methodologies to support WA Health to understand, promote and nurture the development of an innovation culture within WA Health. The project will support WA Health to develop an internal culture that supports innovation and change. The project will culminate in a set of practical tools that will support WA Health to implement, test, and evaluate the development of innovation culture.

In this, the first phase of the project, the research team will work with WA Health leaders and representatives to understand their individual experiences with innovation with the aim of developing a system-wide understanding of the current state of innovation culture. We aim to interview up to 35 people working in WA Health collecting non-identifiable data and narrative about their experiences of what the common enablers and barriers exist to the development of innovation.

With this data, we expect to have the information necessary to develop a visual map of the pathways innovation takes within WA Health as well as a foundational understanding of what works well and where there are opportunities for change.

Project Title	RGS 148: Single Troponin Accelerated Triage of Chest Pain Study		
Principal Investigator	Professor Graham Hillis		
Institution	Royal Perth Hospital		
Start Date	31st of August 2021	Finish Date	1 st of December 2022

Acute chest pain is one of the commonest causes of presentation to Emergency Departments (EDs) locally (~7.5% of all attendances to Royal Perth Hospital ED in 2015), nationally and worldwide. The majority (>75%) of these individuals are at low risk of serious complications, with only a small proportion ultimately diagnosed with an acute coronary syndrome (ACS) or other major pathology. The consequences of misdiagnosis are, however, potentially catastrophic. Thus, considerable time and resources are expended to ensure the accurate triage of such patients.

Recent data suggest that patients with very low levels of high sensitivity troponin (hs-cTn; a very sensitive and specific blood marker of cardiac injury) on arrival to ED (the majority of all those with presenting with chest pain) are at extremely low risk and could be safely and quickly discharged. There are, however, no studies that have actually tested this strategy.

Using a pre/post cohort study design we have tested the efficacy and safety of an innovative pathway which integrates the best contemporary available evidence to offer the most accelerated triage of patients with chest pain currently available. We hypothesised that using a combination of hs-cTn levels, careful clinical assessment, objective risk scores and structured, evidence-based, early follow up and investigation will greatly reduce the length of stay for low risk patients without any increase in adverse outcomes. We can confirm this outcome up to 30 days after discharge.

If this proves correct this novel pathway will result in considerable efficiencies and cost savings that can be easily replicated in other hospitals in Western Australia and beyond.

Project Title	RGS 3183: Cancer Patient Experience Study		
Principal Investigator	Dr Angela Ives		
Institution	The University of Western Australia		
Start Date	7 th of September 2021	Finish Date	31st of December 2022

The CIC Cancer project team (RGS 1117) will undertake the Patient Experience Survey – Cancer, using both hard copy and web-based tools to 11,500 Western Australian's across the whole state (inclusive of metropolitan and rural areas) who were diagnosed with cancer in 2019. The survey will utilise a tool developed by All.Can, with some adjustments applied, to better understand the lived experience of cancer patients.

The project team will work collaboratively with associated stakeholders, such as WA Cancer and Palliative Care Network Clinical Implementation Unit (WAPCN CIU), All.Can Australia/All.Can International, WA Cancer Registry (WACR), consumer representatives and Cancer Council WA (CCWA) to ensure the project provides a comprehensive measurement of patient experience.

Project Title	RGS 4709: Elderly Trauma Outcome Prediction Study		
Principal Investigator	Dr Mayura Iddagoda		
Institution	Royal Perth Hospital		
Start Date	24 th of August 2021	Finish Date	31st of December 2024

Major trauma related mortality and morbidity is common in older people. Evidence is limited for prognosticating adverse events and strategies to improve outcomes of older patients after major trauma. The aim of this project is to establish a model to predict outcomes of older people after trauma and develop a strategic approach to improve their overall prognosis.

Retrospective data will be reviewed over 20 years in Data Linkage WA to identify patient measurements such as injury factors, physical parameters after the injury, baseline comorbidities and resuscitation components which could prognosticate outcomes after major trauma and a model will be developed (ETOP) to utilize in risk stratification of those older patients after trauma.

Project Title	RGS 4623: Characterising the epidemiology of RSV and other respiratory infections through record linkage: clinical burden, outcomes, risk factors and impacts of interventions		
Principal Investigator	Dr Christopher Kueh		
Institution	Edith Cowan University		
Start Date	6 th of July 2021	Finish Date	31st of July202

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In this, the first phase of the project, the research team will work with WA Health leaders and representatives to understand their individual experiences with innovation with the aim of developing a system-wide understanding of the current state of innovation culture. We aim to interview up to 35 people working in WA Health collecting non-identifiable data and narrative about their experiences of what the common enablers and barriers exist to the development of innovation.

With this data, we expect to have the information necessary to develop a visual map of the pathways innovation takes within WA Health as well as a foundational understanding of what works well and where there are opportunities for change.

The second phase of the research project will explore these opportunities for change through action research alongside public health system partners.

Project Title	RGS 4711: The effect of maternal age and ethnicity on pregnancy complications, length of labour, and mode of birth		
Principal Investigator	Dr Gizachew Tessema		
Institution	Curtin University		
Start Date	7 th of September 2021	Finish Date	31st of December 2023

The trend towards delayed childbearing has increased in many high-income countries in recent decades (Australian Institute of Health and Welfare, 2020). In Australia, childbirth is seen as a normal event and the majority of women have uncomplicated vaginal births (Australian Institute of Health and Welfare, 2020). However, the average age of childbearing women has increased over the last 30 years, leading to increased maternal morbidity and mortality, with an increasing number of women impacted by pregnancy and birth complications (Adane et al., 2020). Previous research demonstrates that sociodemographic factors affect pregnancy and labour outcomes (Cavazos-Rehg et al., 2015; Greenberg et al., 2007). The aim of this study is to compare the prevalence of pregnancy and birth complications by maternal age and ethnicity, and to investigate the association between maternal age and ethnicity and these complications in the Western Australian (WA) population and its current demographic. Findings from this study will provide information relevant to childbearing women in Western Australia and their maternity care providers. Understanding the links between maternal sociodemographic information such as maternal age and ethnicity on pregnancy complications, labour duration and mode of birth may inform policies and practices on the provision of maternity care and aims to contribute to education and improved outcomes for mothers and babies.

Project Title	RGS 4844: Australian Longitudinal Study on Women's Health Data Linkage Project		
Principal Investigator	Professor Gita Mishra		
Institution	University of Queensland		
Start Date	11th of August 2021	Finish Date	1 st of July 2031

The Australian Longitudinal Study on Women's Health (ALSWH) is a nationally representative, longitudinal epidemiological survey program, involving three cohorts of women recruited in 1996 (the 1973-78, 1946-51 and 1921-26 birth cohorts) and a further cohort born 1989-95, recruited in 2012-13. In 2016, a subset of the 1973-78 Cohort also took part in the Mothers and their Children's Health (MatCH) Substudy.

The aim of this project is to link key Department of Health WA collections, to estimate health risks for morbidity, mental health, cancer, and perinatal complications, while accounting for individual-level differences in socio-economic, behavioural, environmental and other risk factors. Findings are translated into evidence which informs health policy and planning, to reduce the burden of disease. Regular updates of linked collections are requested, so that evidence remains current.

This project strengthens ALSWH's evidence base for research, which makes a direct and significant contribution to the development of Australian health policy.

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