



**Annual Report** 

Australian Centre for Health Services Innovation 2021











## **AusHSI Annual Report 2021**

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Bringing health innovation to life

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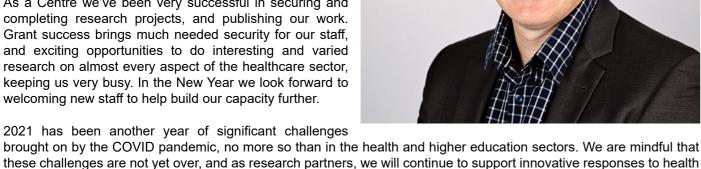
## Director's Overview

Over the last decade, AusHSI has been at the forefront of health services research, having significant impact on changing the way Australian health services deliver care.

AusHSI continued to deliver many worthwhile and impactful research projects and programs in 2021. As we worked to guide our healthcare partners in meeting the rising demand for their services, we continued to see rising demand for our expertise and services, which is a credit to the accomplishments of our talented research team.

As a Centre we've been very successful in securing and welcoming new staff to help build our capacity further.

service challenges wherever we can.



November marked a big milestone as AusHSI celebrated our 10th anniversary. In collaboration with QUT's Faculty of Health we helped launch the Faculty's Real Health Lecture Series. With the topic Transforming healthcare - the next 10 years we explored the acceleration of Australia's need for more efficient healthcare services and what needs to be done to navigate this new reality successfully.

Watch our 10 year anniversary video to hear from our valued health services partners, as well as current and former AusHSI leaders, about our first decade and what the future holds.

One of the things I've enjoyed most this year has been seeing our wonderful team of Higher Degree Research students continue to grow as an integral part of our research Centre. At AusHSI we believe the future of research is our students. It is also a pleasure to see the collaborations and partnerships expand across our overarching flagship research centre, the QUT Centre for Healthcare Transformation.

Thank you to all our hardworking research academics and support staff, and our colleagues and partners in the healthcare sector, for continuing to support AusHSI's research, education and consulting projects to improve the quality and value of Australian healthcare. 2021 marked ten years of partnering to improve health services delivery, and we look forward to continued innovation with real world impact in the years to come.

**Professor Steven McPhail Centre Director** Strength Lead - Health Economics and Program Lead - Digital Health

## **About AusHSI**

The Australian Centre for Health Services Innovation (AusHSI) began ten years ago as a partnership between Queensland Health, The Royal Brisbane and Women's Hospital, Queensland University of Technology (QUT) and the University of Queensland. Today, reflecting its impact in transformative research, AusHSI has grown significantly. It is now one of QUT's major research centres based within its Faculty of Health, strengthening QUT's reputation for high-quality and high-impact research.

Together with its nursing partners, AusHSI forms part of QUT's flagship Centre for Healthcare Transformation. This centre represents a major University strength and has a global reputation. As we journey through our second decade, we are excited about the opportunities to build on our strong foundations. We continue to extend our national and international partnerships and grow capacity for health service organisations to evolve and improve based on latest research.

VISION	Bringing innovation to life for better healthcare		
MISSION	To enable our partners to create genuine improvements in the quality and value of healthcare.		
VALUES	Knowledge "Seek Solutions" Innovation "New Ways"	Collaboration "Better Together" Pragmatism "Be Real"	
WHO WE ARE	We are a research, education a	and consulting organisation.	
WHAT WE DO	We enable health service organisations to make changes that bring about greater efficiencies and improved patient outcomes.		
RESEARCH STRENGTHS	Health economics Implementation science Statistics and data analysis		
WHY PARTNER WITH US	We combine leading edge rese experience to facilitate and deli		

## **Our Team**

Prof Anne Chang AM

Prof Kirsten Vallmuur

Prof Gill Harvey

Dr Amarzaya Jadambaa

A/Prof Sanjeewa

Kularatna

# Prof Steven McPhail Centre Director/Strength Lead – Health Economics, Program Lead – Digital Health Ms Megan Campbell Operations Director Prof Will Parsonage Clinical Director/Program Lead – Cardiac Strength / Program Leads Prof Adrian Barnett Strength Lead – Statistics and Data Analysis

Program Lead - Respiratory

Program Lead - Trauma

Strength Lead - Implementation

Academic Team	
Dr Bridget Abell	Research Fellow – Implementation Science
Dr Michelle Allen	Research Fellow – Implementation Science
Dr Shane Black	Lecturer – Health Management
Dr David Brain	Senior Research Fellow – Health Economics
Dr Hannah Carter	Senior Research Fellow – Health Economics
Dr Susanna Cramb	Senior Research Fellow – Statistics
Dr Jo Durham	Senior Lecturer – Health Management
Dr Olivia Fisher	Research Fellow – Implementation
A/Prof Jaimi Greenslade	Principal Research Fellow – Value-based care
Dr Ruvini Hettiarachchi	Research Associate – Health Economics
A/Prof Reece Hinchcliff	Associate Professor/Deputy Discipline Lead – Health Management

Research Assistant

Health Economics

Principal Research Fellow -

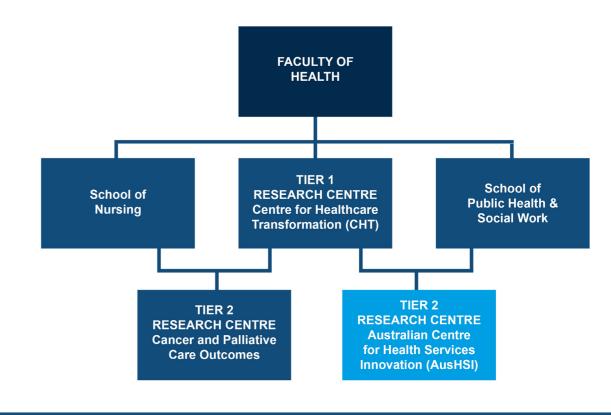
Academic Team (continued)		
Dr Kathryn Kynoch	Senior Lecturer – Health Services Innovation	
A/Prof Peter Lazzarini	Conjoint Research Fellow QUT and Queensland Health	
A/Prof Julie Marchant	Principal Research Fellow – Respiratory	
Dr Elizabeth Martin	Senior Lecturer – Health Management	
Dr Victoria McCreanor	Research Fellow – Health Economics	
Dr Margaret McElrea	Research Manager & Research Fellow – Respiratory	
Dr Sundresan Naicker	Research Fellow – Implementation Science	
Dr Alexia Rohde	Senior Lecturer – Health Services Innovation	
Prof Michael Schuetz	Director, Jamieson Trauma Institute	
Dr Sameera Jayan Senanayake	Research Fellow – Health Economics	
•	Research Fellow – Health Economics  Associate Professor – Digital Health	
Senanayake		
Senanayake  A/Prof Amina Tariq	Associate Professor – Digital Health Senior Research Fellow –	
Senanayake  A/Prof Amina Tariq  Dr Zephanie Tyack  Dr Sam Toloo	Associate Professor – Digital Health  Senior Research Fellow –  Implementation Science	

Research Support Team		
Ms Alison Farrington	Research Project Manager	
Mr Christopher Aitken	Nurse Educator	
Ms Christine Brown	Research Project Coordinator	
Mrs Sian Conway Lamb	Marketing and Communications Officer	
Ms Helen McKenzie	Research Project Officer	
Ms Carla Shield	Research Coordinator	
Mrs Ruth Tulleners	Senior Research Assistant	
Mrs Jo-Anne Ward	Executive Assistant	

Associates	
Dr Ahmad Abdel- Hafez	Data Scientist eHealth Queensland & Principal Data Analyst/Scientist, Metro South Health
Mr Stephen Canaris	Senior Director, Office of the Chief Information Officer, Metro South Health
A/Prof Tina Cockburn	Co-Director, Australian Centre for Health Law Research, QUT
Prof Nicholas Graves	Deputy Director, Program in Health Services & Systems Research, Duke-NUS Singapore
Dr Rebecca Haddock	Executive Director, Knowledge Exchange, Australian Healthcare & Hospitals Association
A/Prof Lisa Hall	Director, Teaching and Learning & Associate Professor in Epidemiology, University of Queensland
A/Prof Roman Kislov	Reader (A/Prof), Oganisation Studies, Manchester Metropolitan University
Prof Alison Kitson	Vice-President and Executive Dean, College of Nursing and Health Sciences, Flinders University
Dr Xing Lee	Senior Analyst, Queensland Treasury

Associates (continued)	
Dr Raymond Mahoney	Senior Research Scientist, CSIRO
Mrs Prudence McRae	Program Manager, Eat Walk Engage, Royal Brisbane and Women's Hospital
Dr Gregory Merlo	Principal Project Officer, Clinical Excellence Queensland at Queensland Health
Prof Alison Mudge	Director, Research and Education in Internal Medicine and Aged Care, Royal Brisbane and Women's Hospital
A/Prof Kerry-Ann O'Grady	Senior Research Coordinator, QoVAX SET Program, Metro North Health
Prof Ian Scott	Director, Department of Internal Medicine and Clinical Epidemiology, Princess Alexandra Hospital
Prof Clair Sullivan	Queensland Digital Health Research Network, Centre for Health Services Research, University of Queensland
Prof Malcolm Thatcher	Chief Technology Officer, Australian Digital Health Agency
Dr Julian Wallace	General Practitioner and Advanced Trainee in Public Health Medicine
Ms Kylie Woolcock	Acting CEO, Australian Healthcare & Hospitals Association

## Organisational Structure – Research Centres



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#### Overview

#### **Research Strengths**

AusHSI is one of the only health services research groups in Australia to combine health economics, implementation science, statistics and data analysis. With this knowledge, we seek out smart and practical ways to create improvements to the broad range of systems, structure and processes involved with the delivery of better healthcare.









Data Analysis

#### Consultancy

AusHSI has extensive hands-on experience of delivering innovation and improvements for better health services and provides a range of consultancy services. AusHSI works with clients across Australia to undertake a wide range of consulting projects both large and small.

While we have experience in delivering extensive statewide initiatives, we also deliver many small projects. All our projects are focused on providing value and return on investment.



#### Research Highlights 2021

2021 was a successful year for research funding at AusHSI. Chief Investigators across the Centre were awarded 17 new projects worth \$9,965,971. This included competitive grants from the ARC, MRFF, NHMRC, Defence Health, and various Hospital Foundations; as well as commercial research and consultancy projects from The Australian Institute of Sport, WA Dept of Health, Mater Health, and the Federal Department of Health.

See Appendix 2 for a list of AusHSI's newly awarded projects in 2021, and Appendix 3 for ongoing and completed projects in 2021.

#### **Publication Highlights**

See Appendix 1 for a full list of AusHSI publications for 2021

Hypnotherapy for Procedural Pain and Distress in Children: A Scoping Review Protocol. Geagea, D., Tyack, Z., Kimble, R., Eriksson, L., Polito, V., & Griffin, B. (2021). Pain Med, 22(12), 2818-2826. 10. https://doi.org/10.1093/pm/pnab038

Public opinion on global rollout of COVID-19 vaccines.

Clarke, P. M., Roope, L. S. J., Loewen, P. J., Bonnefon, J. F., Melegaro, A., Friedman, J., Violato, M., Barnett, A., & Duch, R. (2021).

Nat Med, 27(6), 935-936. https://doi.org/10.1038/s41591-021-01322-9

Prevention and management of respiratory disease in young people with cerebral palsy:

Gibson, N., Blackmore, A. M., Chang, A. B., Cooper, M. S., Jaffe, A., Kong, W. R., Langdon, K., Moshovis, L., Pavleski, K., & Wilson, A. C. (2021).

Dev Med Child Neurol, 63(2), 172-182. https://doi.org/10.1111/dmcn.14640

Influenza and pertussis vaccine uptake during pregnancy among Australian women in southeast Queensland, Australia.

Laurie, L., Lambert, S. B., Jones, L., Boddy, G., & O'Grady, K. F. (2021). Aust N Z J Public Health, 45(5), 443-448. https://doi.org/10.1111/1753-6405.13133

Predictors of short-term hospitalization and emergency department presentations in aged care. Inacio, M. C., Jorissen, R. N., Khadka, J., Whitehead, C., Maddison, J., Bourke, A., Pham, C. T., Karnon, J., Wesselingh, S. L., Lynch, E., Harvey, G., Caughey, G. E., & Crotty, M. (2021). J Am Geriatr Soc, 69(11), 3142-3156. https://doi.org/10.1111/jgs.17317



Type of Publication	Number	Journal Quartile	202
Article	143	Q1	120
Conference Paper	2	Q2	39
Editorial	3	Q3	11
Erratum	2	Q4	3
Letter	5	#N/A	16
Note	7	<b>Grand Total</b>	189
Review	27		
Grand Total	189		

**Scopus Metrics** Citations Captures Mentions

Social Media











## Research Programs in Focus

#### **Programs**

Our program areas cover a range of clinical and healthcare systems reflecting our multidisciplinary approach and breadth of engagement across the healthcare sector. We apply our methodological strengths in health economics, implementation, and statistics across each of our program areas.







D







nfectious Disease

Community Health

The following section highlights new and ongoing research projects from each of our Programs, and key research leads. AusHSI researchers worked across more than 80 active projects in 2021. The following section highlights a small selection of new and ongoing research projects from each of our Programs, and key research leads. See Appendix 3 for the full list of AusHSI's ongoing projects.

#### **DIGITAL HEALTH**

Embracing digital disruption using intelligent decision support for more responsive care, better patient outcomes and greater efficiency

Principal Investigator: Prof Steven McPhail Researchers: Dr Sundresan Naicker, A/Prof Amina Tariq, Dr. Shane Black, Dr Hannah Carter, Dr Bridget Abel, A/Prof Sanjeewa Kularatna, Dr Nicole White, Dr David Brain

**Overview:** This large program of work involves working with healthcare delivery partners investigating, identifying, and evaluating the development, uptake and use of digital decision support solutions across the healthcare system and within key priority areas.

**Methods:** This program of work involves a series of inter-connected studies that draw on a mixed methods framework. The first phase, which is now complete, identified high-priority digital health use cases to address service needs, as well as evaluating implemented digital solutions to understand patterns of use in real-world settings, and developing recommendations for further improvement.

Subsequent initiatives have now commenced for developing, adopting or adapting digital health solutions for real-world implementation and evaluation. This will include cost-effectiveness analysis and sustainment planning. This second phase will focus on digital solutions related to: early warning systems for deteriorating patients; artificial intelligence in medical imaging; demand management; patient safety; and optimising outpatient engagement to reduce healthcare waste.



Steven McPhail is an internationally renowned health service innovator, health economist, clinician and researcher and leads the health management discipline at QUT. He is also the Flagship Research & Education Director (Intelligent Decision Support) for the Digital Health Cooperative Research Centre and Co-Director of the Centre for Healthcare Transformation.

Steve's major focus is working in partnerships within and across health services and government jurisdictions to help design, implement and evaluate effective model of care or system transformations that improve patient care at low cost.

#### **RESPIRATORY STUDY**

Duration of amoxicillin-clavulanate for protracted bacterial bronchitis in children (DACS)

Program Lead: Prof Anne Chang AM

Researchers: A/Prof Julie Marchant, A/Prof Stephanie Yerkovich

**Background:** Protracted bacterial bronchitis (PBB) is a leading cause of chronic wet cough in children. The current standard treatment is 2 weeks of antibiotics, but the optimal duration of therapy is unknown. This study offered the first randomised controlled trial to assess the duration of antibiotic treatment in children with chronic wet cough and suspected PBB, hypothesising that 4 weeks of amoxicillin-clavulanate is superior to 2 weeks for improving clinical outcomes.

**Methods:** The randomised trial was completed in four Australian hospitals. Children with chronic (>4 weeks duration) wet cough, and suspected PBB were randomly assigned to either 4 weeks, or 2 weeks of amoxicillin-clavulanate followed by 2 weeks of placebo (2-week group). The primary outcome was clinical cure (cough resolution) by day 28.

**Findings:** A 4-week course of amoxicillin-clavulanate for treating children with chronic wet cough and suspected PBB confers little advantage compared with a 2-week course in achieving clinical cure by 28 days. However, as a 4-week duration led to a longer cough-free period, identifying children who would benefit from a longer antibiotic course is a priority.



Anne Chang is an established leading researcher with international recognition in cough, bronchiectasis and evidence based medicine (EBM) related to paediatric respiratory medicine.

Anne has helped develop and apply EBM for respiratory illnesses nationally and internationally. She drives change in the investigation and management of paediatric cough leading to earlier diagnosis of bronchiectasis, describing a pre-bronchiectasis condition (PBB) and the inclusion of respiratory symptoms in primary care child assessments.

#### **CARDIAC**

Developing a heart disease-specific preference-based measure

Program Leads: Prof Will Parsonage, A/Prof Sanjeewa Kularatna Researcher: Dr Sameera Senanayake

Background: In economic evaluations, an established patient reported outcome measurement method is quality-adjusted life years (QALYs). The quality component represents the weight attached to a health state. The most widely used preference-based instrument is EQ-5D which is considered generic and may not be suitable to measure the change in utility for specific conditions such as heart disease. There is concern that generic measures may not capture the full impact of the intervention and not provide complete information to the decision-makers.

**Methods:** This project developed the MacNew-7D instrument with the aid of two grants from the National Heart Foundation. The project built major collaborations with the Royal Brisbane and Women's Hospital cardiac department, with Will Parsonage facilitating data collection.

Outcome: MacNew Heart disease health-related quality of life instrument was used to develop the new preference-based measure, MacNew-7D. This new measure has seven dimensions and an associated Australian value set. The original quality of life instrument can still be used for data collection. The utility algorithm AusHSI researchers developed with their national and international partners is used to estimate utility values.



Will Parsonage joined AusHSI as Clinical Director in June 2016, and is Senior Staff Cardiologist at The Royal Brisbane and Women's Hospital and St Vincent's Private Hospital Northside. Will contributes to AusHSI's strategic and clinical leadership, overseeing research policy, maintenance of research clinical standards and AusHSI's strategic and operational planning.

As lead of the AusHSI Cardiac Health Services Program, Will has continuing engagement in a number of studies relating to patients presenting with chest pain as well as being a chief investigator across the field of cardiovascular disease.

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#### **TRAUMA**

injury Treatment & Rehabilitation Accessibility Queensland Index

Program Leads: Dr Susanna Cramb, Jacelle Warren Investigators: Prof Kirsten Vallmuur, Adam Rolley, Rex Parsons

Background: This pilot study investigates trauma care accessibility for moderate to severe traumatic brain injury (TBI) in Queensland. Remoteness and accessibility are commonly classified by indices like ARIA+ which do not specifically consider access to health care. Timely treatment is vital to reduce mortality and long-term complications from injuries, and access to rehabilitation is important for full recovery. A dispersed population poses challenges to emergency trauma system design, requiring road and aeromedical retrieval services, trauma outreach services and specialist transfer protocols for time critical

Methods: Pathways to acute care and rehabilitation services were mapped with travel times calculated for 441 locations, and interpolated to cover all of Queensland. These travel times were categorised and combined to form iTRAQI. This index is unique in considering both aeromedical/road transport access routes plus driving time to in-patient rehabilitation. iTRAQI ranks accessibility to health care following injury, and can be further tailored to specific injuries that require unique treatment pathways and rehabilitation locations.

Objectives: Use the iTRAQI tool to understand and quantify neurosurgical and rehabilitation accessibility issues for moderate/ severe TBI patients in Queensland.



Kirsten Vallmuur is the Chair of Trauma Surveillance and Data in a joint position between AusHSI and the Jamieson Trauma Institute (JTI).

Kirsten's team is currently undertaking research projects scoping the breadth and depth of data collected on trauma to develop best practice methods and tools for using linked trauma data, analysing the data to better understand the causes, trends, patterns, burden, costs and outcomes of trauma in Queensland. This work is contributing to the broader Queensland State-wide Trauma Data Warehouse development project being run by Queensland Health.

#### **HOSPITAL SERVICES**

**Intervention for Appropriate Care and Treatment (InterACT)** 

Program Lead: Prof Adrian Barnett Researchers: Prof Steven McPhail, Prof Gillian Harvey, Prof Nicholas Graves, Dr Xing Lee, Dr Hannah Carter

Background: An NHMRC funded partnership study, InterACT aimed to increase appropriate care and treatment decisions for older people at the end-of-life, through implementation of a prospective feedback loop in three large Queensland hospitals.

Methods: A stepped-wedge randomised controlled trial was conducted across three large acute Queensland hospitals between May 2020 and June 2021. 14 participating clinical teams were involved in the study with patients aged 75 years or older admitted under these teams prospectively screened. Eligible patients were screened twice a week to detect risk of deterioration and short-term death.

The study screened a total of 7,366 patients. Nearly two-thirds of these patients were deemed at-risk. The median age of the at-risk patients was 84 years, with slightly more females (54%) than males. The most common characteristics measured by these tools and contributing to an at-risk profile were; unplanned hospital admission, admission via the Emergency Department, hospitalisation in previous year and moderate

Findings: Full results for the InterACT study are expected mid-2022.



Adrian Barnett is a statistician specialising in medical statistics, health services research and research funding. A founder member of AusHSI, he has evaluated large and complex changes to the health system. He is a fellow of the Academy of the Social Sciences in Australia, a member of the NHMRC Research Committee, and member of Science and Technology Australia's policy

Adrian's current focus is on improving the quality of health and medical research, and how researchers apply and describe their statistical analyses.



#### **COVID-19 Critical Care Consortium**

Led by: Critical Care Research Group, The Common Good Researchers: Dr Nicole White, Prof Adrian Barnett

Background: The COVID-19 Critical Care Consortium is an international observational study of COVID-19 ICU patients, conducted in partnership with the International Severe Acute Respiratory and emerging Infection Consortium (ISARIC). The project aims to bring together critical care specialists and researchers to improve understanding about the management and clinical outcomes following ICU admission, focussing on the use of mechanical ventilation and extracorporeal membrane oxygenation (ECMO). The project further aimed to understand outcomes through a series of sub-studies targeting cardiac, neurology, acute kidney injury and coagulation disorders.

Methods: AusHSI researchers provided statistical expertise to the Consortium, leading the design and analysis of studies with Consortium members. Completed analyses include the impact of neurological complications on ICU outcomes, the benefit of prone positioning during ECMO, assessment of changes in respiratory system compliance and associations between clinical biomarkers and in-hospital mortality.

Findings: Research outcomes have been presented at international conferences and published in international critical care journals. See full list of publications.

Developing a new model of care for mental health services in the Bowen Basin (2020-2021)

Researchers: Dr Bridget Abell, Prof Steven McPhail, Dr Zephanie Tyack

**Background:** Recent years have seen an increase in demand for mental health services in the regional Bowen Basin area of Queensland due to increasing needs of local community members, and Fly-In, Fly Out workers who have a higher likelihood of experiencing mental health problems than the general population. Unfortunately, increasing demand for mental health care faces challenges of funding, delivering, and staffing mental health services in rural and remote areas.

**Methods:** This research used implementation science methodology and community co-design methods to develop a new contextually relevant model of care for mental health service delivery in the Bowen Basin. Existing services and key providers and stakeholders were identified and examined to understand the contextualised barriers and facilitators to service delivery and implementation, supported by extensive community consultation.

Outcome: A 'layered care navigation model' (Navicare) was adopted in the Moranbah community. This service model combines a hub and care navigation approach with collaborative in-situ service delivery, community development and tailored telehealth solutions.



AusHSI provides a range of learning and development options to suit different health service organisations' needs. Our education services range from a number of short course options in our key capability areas, a Graduate Certificate in Health Services Innovation, and opportunities for mentoring and supervision by our AusHSI researchers while completing a higher degree research qualification.

#### **AusHSI Short Courses**

#### **Developing Applied Skills in Cost-Effectiveness**

The three-day short course was delivered for the first time in 2021 as a wholly online course by Dr Hannah Carter and Dr David Brain.

Day 1 was delivered in February and Days 2 and 3 in March. Attendees included participants from QUT, University of the Sunshine Coast and Queensland Health.

#### **Health Statistics Refresher**

The one-day short course was delivered by Prof Adrian Barnett as a face-to-face course on 14 July 2021.

Attendees included participants from QUT, UQ, Griffith University, Queensland Health and QLD Centre for Mental Health Research.

#### **Graduate Certificate in Digital Health Leadership and Management**

This new, future-focused course was designed with extensive understanding of the health system and its requirements. Leveraging ongoing partnerships with Metro North and Metro South Hospital and Health Services, as well as the Digital Health CRC, the program was co-designed to deliver a flexible and innovative course that addresses the need to upskill and build a healthcare workforce for the digital health era. Funded by the Digital Health CRC, competitive tuition fee scholarships will be offered in 2022 to encourage healthcare workers to enrol.

Delivered for the first time in Semester 1 2021, the Graduate Certificate was trialled on a cohort of twenty learners from diverse backgrounds, with 70% of participants employed in health industry roles across Australia. The pilot received excellent feedback from participants, with 82% agreeing that the foundational digital health unit developed skills directly applicable to their roles and future career advancement.

#### STUDENT TESTIMONIALS

Content structure was cohesive and structured really well, emphasised all the important aspects of the everchanging digital health domain. It was great to see an innovative teaching delivery that caters to working students.

I loved the digital presentation of this unit, especially when learning about topics on how to best use digital technologies to optimise health. I also like the ease to access information regarding the unit. Overall, well designed wonderful learning experience.

#### **Graduate Certificate in Health Sciences (Health Services Innovation)**

In Semester 1 2020, the third Cohort of students from Metro North HHS resumed their second unit of the Grad Cert, PUZ019 Implementation Science (19 students) after first attempting this unit in Semester 1, 2020 only to have it cancelled mid-semester due to COVID. COVID also disrupted this reattempted delivery, with Day 3 of the teaching program moved online, but the remainder was able to be delivered in-person. Cohort 3 completed their third unit, PUZ018 Cost-effectiveness (18 students) in Semester 2, and are due to graduate at the end of Semester 1, 2022 after completing their final unit HLZ701 Independent Study.

Semester 2 also saw Cohort 4 commence, with 32 students completing their first unit, PUZ019 Implementation Science, with little interference from COVID the unit was completed face to face. Cohort 4 is due to graduate at the end of Semester 1, 2023.

We're very proud of the Graduate Certificate in Health Services Innovation which we developed in partnership with Metro North Health. You can read more about how and why in our paper: Martin, E., Campbell, M., Parsonage, W., Rosengren, D., Bell, S. C., & Graves, N. (2021). What it takes to build a health services innovation training program. Int J Med Educ, 12, 259-263. https://doi.org/10.5116/ijme.61af.30bd

#### Cohort 3 Independent Study Unit – Project Examples

Name: Jenny Mitchell

**Title of project:** Adis-Link Direct Referrals: Implementation of pathways for streamlined alcohol and other drug treatment: a service evaluation

Lack of timely referral to support services for people seeking assistance with alcohol and drug issues has been identified as a factor that influences support and recovery. This prompted the developed of Adis-Link Direct Referrals: development and implementation of pathways to ensure streamlined and timely alcohol and other drug treatment is provided to those people who need it most.

Name: Louise O'Riordan

Title of project: Development and implementation
of a pandemic recovery plan

The aim of this project is to develop and implement a pandemic recovery plan for Metro North, using an implementation framework such as i-PARIHS (integrated Promoting Action on Research Implementation in Health Services) to guide and evaluate the process. The steps of the disaster recovery framework will be utilised as a framework for the development of the overarching plan.

Name: Rebecca Tarrant
Title of project: Implementation of a Community
Occupational Therapy Outcome Measure (OTSCAR)

Community OT does not have a standardised outcome measure to use when assessing with adults with a physical disability, which leads to inconsistent assessment practices and findings. The OTSCAR (Occupational Therapy System for Community Assessment and Reporting), is a newly developed community outcome measure. This project aims to identify local factors that may impact the acceptance and optimal intake and use of this new measure within a community health setting.



Graduate Certificate in Health Sciences students L-R: Kathleen Kurzke, Danielle Riley and Sally Nahak

## Higher Degree Research



Impact Makers Conference. Top L-R: Sumudu Hewage, Shayma Mohammed Selim, Dr Sameera Jayan Senanayake, A/Prof Sanjeewa Kularatna, Manasha Fernando, Dr Nicole White, Thomasina Donovan. Bottom L-R: Pakhi Sharma, Dr Victoria McCreanor, Jack Roberts, Ureni Halahakone

#### **Higher Degree Research Students**

AusHSI's growing Higher Degree Research (HDR) cohort saw 15 students join in 2020–2021, with even more joining in 2022. Our multi-disciplinary group continues to expand the research outputs of the centre.

#### **Impact Makers Conference**

On 24 November, the QUT School of Public Health and Social Work invited staff, higher degree research students and undergraduate students along to a conference celebrating the innovative work of the HDR students in the PHSW community.

It was an inspiring day of knowledge making for impact, reflecting the real world change powered by higher degree work in social work, public health, health safety and environment, health management and digital health.

Thomasina Donovan was awarded top presenter for her excellent talk on *Implementation costs of hospital based computerised clinical decision support systems (CDSS):* a systematic review.

#### Three-minute thesis award

Shayma Mohammed Selim was placed third in the QUT Faculty of Health 3 Minute Thesis (3MT) presentation on 5 August. Shayma received a 'wildcard' entry into the QUT 3MT Final held on 15 September, and was voted the People's Choice winner.



Higher Degree Research Students	Principal Supervisor	Thesis Title
Ben Auld	Prof Steven McPhail	Informing Clinical Pathway Change in Queensland for Children with Congenital Heart Disease: primary-care physician and patient experience
Robin Blythe	Prof Steven McPhail	Real-time clinical decision support systems for the prevention of deterioration in acute care
Andrew Collaro	Dr Margaret McElrea	Respiratory health in Aboriginal and Torres Strait Islander Australians; improving lung function with outreach services and appropriate reference values
Thomasina Donovan	Dr Hannah Carter	Implementation costs of hospital based computerised clinical decision support systems (CDSS): a systematic review
Manasha Fernando	Dr Bridget Abell	The value of Implementation Science in Implementing Computerised Clinical Decision Support Systems in hospital settings
Cara Fox	A/Prof Amina Tariq	The utilisation and economic viability of virtual care in health care services
Natalia Gonzalez Bohorquez	A/Prof Sanjeewa Kularatna	Liveability disparities and the socioeconomic exclusion of people with disabilities in regional areas of Australia
Sumudu Hewage	A/Prof Sanjeewa Kularatna	Models of care for stroke prevention in atrial fibrillation: cost- effectiveness and patient preference
Lee Jones	A/Prof Dimitrios Vagenas	Meta-Research: Evaluating Statistical Quality and Reproducibility in Health and Biomedical Research
Shayma Mohammed Selim	A/Prof Sanjeewa Kularatna	Digital health solutions for improving ambulatory care utilisation
Rex Parsons	Dr Susanna Cramb	High-dimensional data for predicting hospital falls
Jack Roberts	Prof Steven McPhail	Measuring the cost and burden of Bronchiectasis in Australia
Adam Rolley	Prof Kirsten Vallmuur	Pre-hospital trauma triage: Epidemiology, accuracy and economics
Brighid Scanlon	Dr Jo Durham	Equity across the cancer care continuum for culturally and lin- guistically diverse migrants living in Australia
Rahul Thomas	Prof Anne Chang	Advancing the knowledge and role of flexible bronchoscopy in children with respiratory illness
Kim Warhurst	Dr Bridget Abbell	Engaging with clinicians to identify and reduce unwarranted clinical variation
Jacelle Warren	Prof Kirsten Vallmuur	From roadside to recovery: Long-term burden and cost of transport-related injuries impacting the Queensland healthcare system



"When we talk about how to optimise value-based care, and rediverting our essential health dollar into areas with maximum impact, there are no longer any blank faces at the table.

AusHSI has had a huge role to play in lifting that literacy around health economics. It has been outstanding."

Dr David Rosengren, Executive Director, Royal Brisbane and Women's Hospital at Metro North Hospital and Health Service

#### Over the last decade, AusHSI has been at the forefront

of the fast-growing field of health services research and has had significant impact on changing the way health services are partnering to deliver over 150 innovative research projects. These range from small projects helping clinicians change practice in their local health service, through to national programs that significantly change the way all Australian health services deliver care.

AusHSI has become a leader for the improvement of health services in Australia and has developed a national and international reputation for excellence.





Offering a unique combination of health economics, implementation science, statistics and data analysis, AusHSI has become an invaluable partner for health service organisations aiming to improve the value and effectiveness of their services.

ABOVE L-R: Prof Steven McPhail, Megan Campbell and Prof Will Parsonage

LEFT L-R: Prof Keith McNeil, Adj Prof Shelley Nowlan, Prof John Fraser and Prof Steven McPhail By partnering and supporting clinicians and their teams who have found a way to improve health services, we've helped change the way that those services go about delivering care, and this has impact on people's lives. It has improved the efficiency of the health system.

For ten years AusHSI has embodied QUT's Real World principles, partnering on numerous projects with practical benefits for clinicians, hospitals and health consumers.

AusHSI has also built the capacity of health service organisations to evolve and improve by leading significant education initiatives.

Looking to the future, AusHSI is now an important partner on major digital healthcare projects, including applying health economics to support decision making at point of care. Its teams of health economists, implementation scientists, and statisticians will be critical as Australia's health sector transforms over the next decade.









Guests and staff enjoying the Australian Centre for Health Services Innovation's 10th Birthday Celebrations

AusHSI's 10th anniversary celebration on 3 November was held in conjunction with the launch of QUT Faculty of Health's new Real Health Lecture Series.

The event included a panel discussion on *Transforming healthcare: The next 10 years*, including the acceleration of Australia's need for more efficient healthcare services, and what needs to be done to navigate this new reality successfully. Featured speakers included:

Professor Keith McNeil Acting Deputy Director-General, Chief Medical Officer (Prevention Division) and Chief Clinical Information Officer, Queensland Health

Adjunct Professor Shelley Nowlan Deputy National Rural Health Commissioner Department of Health Professor John Fraser Director, Critical Care Research Group The Prince Charles Hospital

Professor Steven McPhail Co-Director, Centre for Healthcare Transformation and Director, AusHSI (Moderator)

## Governance

In January 2020 AusHSI was officially classified a QUT Tier 2 Research Centre, embedded within the Centre for Healthcare Transformation, a QUT Tier 1 Research Centre. In mid-2020 a situational analysis and strategic planning exercise was undertaken, with engagement across the Centre to develop a 4-year Strategic Plan. Key areas of action were identified, including the need to develop appropriate governance structures and processes. In March 2021 AusHSI convened a Management Committee and associated Working Groups.

#### **AusHSI Management Committee**

The Management Committee is accountable for the overall governance of AusHSI within the context of QUT policies and procedures. The Committee maintains and regularly reviews AusHSI's system of internal policies and procedures. The Management Committee will ensure that:

- AusHSI's assets (financial and property) are applied appropriately towards the purpose and aims of the Centre;
- · AusHSI operates and is managed in a transparent and accountable manner; and
- · AusHSI makes effective use of available resources.

The Membership of the Committee comprises AusHSI's Leadership Team, Program and Strength Leads, the Research Project Manager, one ECR/MCR representative and one HDR Student representative (with those two positions being annual appointments). The Committee steers the direction of AusHSI according to the Strategic Plan 2021–2024.

Management Committee Members	
Professor Steven McPhail (Chair)	Centre Director/Strength Lead - Health Economics, Program Lead - Digital Health
Professor Will Parsonage	Clinical Director/Program Lead - Cardiac
Ms Megan Campbell (Secretary)	Operations Director
Ms Alison Farrington	Research Project Manager
Professor Adrian Barnett	Strength Lead - Statistics and Data Analysis
Professor Anne Chang AM	Program Lead - Respiratory
Professor Gill Harvey	Strength Lead - Implementation
Professor Kirsten Vallmuur	Program Lead - Trauma
Dr Zephanie Tyack	ECR/MCR Representative
Mr Rex Parsons	HDR Student Representative

The AusHSI Management Committee met four times in 2021 in March, June, August and November.

## **Strategic Direction**

### Objectives

Research translated into practice Improved health outcomes Quality education and training

#### **Actions**

#### **Transformative research**

Deliver transformative research

- Undertake high impact research of the highest quality
- Continue to build record in delivering applied research and practical improvements
- · Build capacity in core skills/knowledge
- Empower Indigenous health research
- Focus on consumer voice

#### **Build our reputation**

Increase profile and strengthen credibility as a leading Health Services Research provider

- Enhance and increase brand visibility
- · Achieve recognition for research quality
- Build reputation and credibility through promotional activities
- · Increase connections and engagement
- · Deliver impactful communications

#### **Stakeholder engagement**

Strengthen stakeholder engagement

- Build stakeholder relations by strengthening existing and fostering new
- Strengthen and extend strategic partnerships
- Develop focused customer relationship management plan

#### **Enable our people**

Our value lies in the expertise and knowledge of our people. Cultivate a high performing workplace

- Maintain excellent workplace culture and team collaboration
- Attract and retain the right, high quality people
- Maximise employee performance and productivityDevelop HDR framework/PhD student support
- Develop HDR framework/PhD student support program

#### **Evolve our organisation**

Manage and develop our growth through effective structures and processes

- Develop a governance framework and organisational structure
- Enable effective workforce planning the right people with the right skills in the right place at the right time
- Enable effective workload management
- Continue to build a skilled workforce

#### Ongoing financial stability

Maintain ongoing financial stability

- Maintain strong financial performance
- · Pursue and secure research funding through:
  - 1. major research grants
  - 2. partnership grants
  - 3. consultancy project

## AusHSI Working Groups

The AusHSI working groups provide support and advice to the AusHSI Management Committee in the delivery and management of key strategic actions identified in the AusHSI strategic plan, to enhance and support AusHSI's strategic objectives.

The working groups comprise AusHSI staff and students selected by the Management Committee either by direct invitation or expression of interest. Members preferably include at least one early- or mid-career researcher (ECR/ MCR), one HDR student, and at least one member of the AusHSI Management Committee. A Chair/lead was chosen for each group. The AusHSI Operations Director has an ex-officio role.

Membership of the working groups will be reviewed from time to time by the Management Committee and by the working groups themselves.

#### Higher Degree Research (HDR) Working Group

The HDR Working Group was established in February 2021 and led by ECR and AusHSI HDR graduate Dr Victoria McCreanor with the purpose of developing and maintaining a HDR student Engagement, Recruitment, Support and Development Strategy.

The major initiative in 2021 was the collation of the AusHSI HDR Student Guide which particularly focused on Orientation activities to take place within the first month of a student's candidature, as well as being a continuing reference pointing to online Faculty and university support resources on the QUT Digital Student Platform, HiQ.

A second initiative was to start a tradition of acknowledging major milestones for students through the presentation of a First Publication mug at an All of AusHSI meeting, to celebrate the publication of each student's 1st First Author paper related to their HDR project.

The group intends to work closely with the AusHSI Engaging Indigenous Australians Working Group to develop a strategy for the recruitment of Aboriginal and Torres Strait Islander students; and with the People and Culture Working Group to ensure AusHSI constructively engages with students to maintain a positive team culture.

#### **Engaging Indigenous Australians Working Group**

The Engaging Indigenous Australians Working Group was established in September 2021 and is led by MCR Dr Hannah Carter. The group met twice in 2021 and determined that the working group's Purpose Statement could only be completed after some initial consultations with key Indigenous People and groups. Suggested contacts for engagement within QUT included Mick Gooda (QUT Council), the Oodgeroo Unit, Carumba Institute; and key external people and groups such as Geoff Binge (Metro North) and the Institute for Urban Indigenous Health (IUIH) and Queensland Aboriginal and Islander Health Council (QHAIC).

The group noted the importance of acknowledging Traditional Owners at the beginning of AusHSI meetings and awareness-raising of activities during NAIDOC week. Members of the group common to the Marketing & Communications Working Group are ensuring appropriate acknowledgments are included in AusHSI communication materials and collateral, such as the letterhead and email signature.



Members of AusHSI's Research Project Team L-R: Carla Shield, Ruth Tulleners and Alison Farrington (Manager)

#### Marketing and Communications Working Group

The Marketing and Communications Working Group, led by Megan Campbell, met monthly during the year. The major focus of the group in 2021 was completion of Phase 1 of a major redevelopment of the AusHSI website, including revision and update of key messaging, and AusHSI's organisational structure to better convey the importance of research Strengths and Programs. Phase 2 of the website redevelopment is underway and includes a refresh of all staff and student biographies, addition of further project pages to highlight the breadth of AusHSI research, and keyword tagging to help with search engine optimisation.

The Working Group also oversaw the refresh of AusHSI corporate branding to coincide with being classified as a QUT Tier 2 research centre, and the 10-year anniversary of AusHSI's establishment in 2011 (see pages 18-19). A comprehensive Marketing Toolkit is in development, including detailed guides for Branding, Writing and Media.

#### People and Culture Working Group

The People and Culture Working Group was established in September 2021 and is led by Professor Kirsten Vallmuur. The Strategic Plan identified two key actions around enabling our people in order to cultivate a high performing workplace; and evolving our organisation through effective structures and processes.

The first initiative of this working group was to draft and distribute a Team Culture survey to all AusHSI staff and students to identify what types of supports and elements of culture are most valued, and which can be augmented or improved. A summary of the main survey findings will be presented to the Management Committee in 2022.

Once the findings have been considered, the working group will draft its Purpose Statement and assess how it can constructively engage with the team and provide support to maintain a positive team culture.

#### Consumer Engagement in Research Working Group

The Consumer Engagement in Research Working Group also serves as a working group of the Centre for Healthcare Transformation (CHT). The group was established in February 2021 and led by AusHSI with members from the broader CHT community, including the Cancer and Palliative Care Outcomes Centre (CPCOC).

This working group met five times in 2021. The group held an internal stakeholder engagement workshop in August and presented an Options paper to the CHT Operations Group in September 2021 outlining the potential models for Consumer consultation that may be suitable for the ongoing needs of the Centre. All models included significant costs which were currently beyond the budget of CHT. The working group will continue to refine alternatives to fit within budget, as well as pursue avenues for alternative funding.

## Awards & Achievements

#### **Advising the NHMRC**

Prof Anne Chang AM and Prof Adrian Barnett have been named as members of new Principal Committees of the National Health and Medical Research Council (NHMRC) for 2021–2024. They have joined, respectively, the NHMRC Health Research Impact Committee and NHMRC Research Committee.

#### **Superstars of STEM**

Dr Nicole White was selected for the 2021–2022 Superstars of STEM program, run by Science and Technology Australia, for her contribution as part of a global project to improve treatments for critical COVID-19 patients. Superstars of STEM is a competitive two-year mentoring and media program that enables its participants to inspire women to pursue STEM careers. As an award recipient, Nicole has been selected to inspire other women with an interest in STEM and highlight career opportunities in statistics.

#### Influencing government decision-making

Data and recommendations from Prof Kirsten Vallmuur, Dr Victoria McCreanor and the Jamieson Trauma Institute (JTI) e-Scooter Project team were included in Brisbane's e-mobility strategy. Data on e-mobility related emergency presentations are included in the report, as well as recommendations to limit speed on footpaths and shared zones, and to trial periods of restricted operation to reduce late-night injury risk. The team has been invited by the Department of Transport and Main Roads to join the Personal Mobility Device Safety Reference Group.



Prof Anne Chang AM, Prof Adrian Barnett



Or Nicole White



JTI e-Scooter Project Team

#### **AusHSI** in the News

#### Dr Sameera Senanayake - PhD Health Economics research in the news

The findings of Dr Sameera Senanayake's PhD research were featured in Australian national media in April 2021. His health economics study found that transplantation of a "lower-quality" kidney to a person in end-stage renal failure is more cost-effective and has greater quality-of-life benefit than remaining on dialysis waiting for a better kidney

#### Dr Catherine Niven - QUT Outstanding Doctoral Thesis Award

Dr Catherine Niven was awarded a QUT Outstanding Doctoral Thesis Award for 2020 for her thesis 'Evaluating Australian and US consumer product safety regulatory responses to hazardous children's products'. Her supervisors were Professor Kirsten Vallmuur and Professor Ben Mathews

#### Prof Adrian Barnett – Oxford Randomised trial of using financial incentives to increase COVID-19 vaccine uptake

Prof Adrian Barnett's randomised trial - with colleagues from Oxford - of using financial incentives to increase COVID-19 vaccine uptake was the evidence used to support the Australian Labor Party's policy of a \$300 payment for Australians to get vaccinated. It was quoted by MP Andrew Leigh in parliament and in an opinion piece in the Canberra Times, and in an opinion piece by Anthony Albanese in The Courier Mail. Adrian was interviewed about the study on ABC TV and national radio

## Appendices

#### **Appendix 1: AusHSI Publications 2021**

Type of publication	Number
Article	143
Conference Paper	2
Editorial	3
Erratum	2
Letter	5
Note	7
Review	27
Grand Total	189

Journal Quartile	2021
Q1	120
Q2	39
Q3	11
Q4	3
#N/A	16
Grand Total	189

- Ababneh, A., Finlayson, K., Lazzarini, P., & Edwards, H. (2021). Cross-Cultural Adaptation and Reliability Testing of Arabic Versions of Several Diabetic Foot Psychosocial Scales. Int J Low Extrem Wounds. https://doi.org/10.1177/15347346211016699
- 2. Alabdaly, A., Debono, D., Hinchcliff, R., & Hor, S.-y. (2021). Relationship between patient safety culture and patient experience in hospital settings: a scoping review protocol. BMJ Open, 11(5), e049873. https://doi.org/10.1136/bmjopen-2021-049873
- 3. Alahakoon, C., Fernando, M., Galappaththy, C., Lazzarini, P., Moxon, J. V., Jones, R., & Golledge, J. (2021). Repeatability, Completion Time, and Predictive Ability of Four Diabetes-Related Foot Ulcer Classification Systems. J Diabetes Sci Technol. https://doi.org/10.1177/1932296820986548
- 4. Alrasheedi, O., Schultz, T. J., & Harvey, G. (2021). Factors influencing nurses' intention to work in the oncology specialty: multi-institutional cross-sectional study. BMC Palliat Care, 20(1), 72. https://doi.org/10.1186/s12904-021-00764-9
- 5. Alruthea, S., Bowman, P., Tariq, A., & Hinchcliff, R. (2021). Interventions to Enhance Medication Safety in Residential Aged-care Settings: An Umbrella Review. Br J Clin Pharmacol. https://doi.org/10.1111/bcp.15109
- Amarasinghe, H., Jayasinghe, R. D., Dharmagunawardene, D., Attygalla, M., Kumara, D. R., Kularatna, S., & Johnson, N. W. (2021). Economic cost of managing patients with oral potentially malignant disorders in Sri Lanka. Community Dent Oral Epidemiol, 50(2), 124-129. https://doi.org/10.1111/cdoe.12639
- 7. Amilani, U., Jayasekara, P., Carter, H. E., Senanayake, S., & Kularatna, S. (2021). Key factors associated with oral health-related quality of life in Sri Lankan adolescents: a cross sectional study. BMC Oral Health, 21(1), 218. https://doi.org/10.1186/s12903-021-01569-1
- 8. Anderson-James, S., Newcombe, P. A., Marchant, J. M., Turner, C. T., & Chang, A. B. (2021). Children's Acute Cough-Specific Quality of Life: Revalidation and Development of a Short Form. Lung, 199(5), 527-534. https://doi.org/10.1007/s00408-021-00482-2

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Andrews, R., Wynn, M. T., Vallmuur, K., Elcock, M., Rashford, S., Bosley, E., & ter Hofstede, A. H. (2021). Trauma by-pass guideline: A data-driven conformance analysis for road trauma cases in Queensland. Emergency Medicine Australasia. https://doi.org/10.1111/1742-6723.13807

- 10. Areri, H. A., Marshall, A., & Harvey, G. (2021). Self-efficacy for self-management and its influencing factors among adults living with HIV on antiretroviral therapy in northwest Ethiopia. AIDS Care, 1-7. https://doi.org/10.1080/09540121.2021.2007839
- 11. Arrow, P., Brennan, D., Mackean, T., McPhee, R., Kularatna, S., & Jamieson, L. (2021). Evaluation of the ECOHIS and the CARIES-QC among an Australian "Aboriginal" population. Qual Life Res, 30(2), 531-542. https://doi.org/10.1007/s11136-020-02646-8
- 12. Arrow, P., Piggott, S., Carter, S., McPhee, R., Atkinson, D., Brennan, D. S., Kularatna, S., Tonmukayakul, U., Nanda, S., Mackean, T., & Jamieson, L. (2021). Atraumatic restorative treatments and oral health-related quality of life and dental anxiety in Australian Aboriginal children: A cluster-randomized trial. Community Dent Oral Epidemiol. https://doi.org/10.1111/cdoe.12704
- 13. Arrow, P., Piggott, S., Carter, S., McPhee, R., Atkinson, D., Mackean, T., Kularatna, S., Tonmukayakul, U., Brennan, D., Nanda, S., Palmer, D., & Jamieson, L. (2021). Atraumatic Restorative Treatments in Australian Aboriginal Communities: A Cluster-randomized Trial. JDR Clin Trans Res, 6(4), 430-439. https://doi.org/10.1177/2380084420963949
- 14. Asumadu-Sakyi, A. B., Barnett, A. G., Thai, P. K., Jayaratne, E. R., Miller, W., Thompson, M. H., Rahman, M. M., & Morawska, L. (2021). Determination of the association between indoor and outdoor temperature in selected houses and its application: a pilot study. Advances in Building Energy Research, 15(5), 548-582. https://doi.org/10.1080/17512549.2019.1606732
- 15. Aswi, A., Cramb, S., Duncan, E., & Mengersen, K. (2021). Detecting Spatial Autocorrelation for a Small Number of Areas: a practical example Journal of Physics: Conference Series, http://dx.doi.org/10.1088/1742-6596/1899/1/012098
- Aswi, A., Sukarna, Cramb, S., & Mengersen, K. (2021). Effects of Climatic Factors on Dengue Incidence: A Comparison of Bayesian Spatio-Temporal Models Journal of Physics: Conference Series, http://dx.doi. org/10.1088/1742-6596/1863/1/012050
- 17. Bairagi, A., Griffin, B., Banani, T., McPhail, S. M., Kimble, R., & Tyack, Z. (2021). A systematic review and meta-analysis of randomized trials evaluating the efficacy of autologous skin cell suspensions for re-epithelialization of acute partial thickness burn injuries and split-thickness skin graft donor sites. Burns. https://doi.org/10.1016/j.burns.2021.04.005
- 18. Barnett, A., & Doubleday, Z. (2021). Demonstrating the ascendancy of COVID-19 research using acronyms. Scientometrics, 126(7), 6127-6130. https://doi.org/10.1007/s11192-021-04016-8
- 19. Barnett, A. G. (2021). Facebook Epidemiology in Place of Textbook Epidemiology [Commentary]. Epidemiology, 32(1), 152-153. https://doi.org/10.1097/ede.000000000001283
- 20. Barnett, A. G., & Glasziou, P. (2021). Target and actual sample sizes for studies from two trial registries from 1999 to 2020: an observational study. BMJ Open, 11(12), Article e053377. https://doi.org/10.1136/bmjopen-2021-053377
- 21. Binks, M. J., Bleakley, A. S., Rathnayake, G., Pizzutto, S., Chang, A. B., McWhinney, B., & Ungerer, J. (2021). Can dried blood spots be used to accurately measure vitamin D metabolites? Clin Chim Acta, 518, 70-77. https://doi.org/10.1016/j.cca.2021.03.003
- 22. Bisballe-Muller, N., Chang, A. B., Plumb, E. J., Oguoma, V. M., Halken, S., & McCallum, G. B. (2021). Can Acute Cough Characteristics From Sound Recordings Differentiate Common Respiratory Illnesses in Children?: A Comparative Prospective Study. Chest, 159(1), 259-269. https://doi.org/10.1016/j.chest.2020.06.067
- 23. Blondell, S. J., Debattista, J., Griffin, M. P., & Durham, J. (2021). Conceptualising, measuring, and addressing HIV-related stigma: Towards reducing disparities in HIV testing and HIV-related outcomes among migrants of HIV unknown or negative status in high-income countries. Health Promot J Austr, 32(3), 433-436. https://doi.org/10.1002/hpja.383

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Blondell, S. J., Debattista, J., Griffin, M. P., & Durham, J. (2021). 'I think they might just go to the doctor': qualitatively examining the (un)acceptability of newer HIV testing approaches among Vietnamese-born migrants in greater-Brisbane, Queensland, Australia. Sexual Health, 18(1), 50-57. https://doi.org/10.1071/SH20064

- 25. Blythe, R., Lee, X., Simmons, T., Cox, J., McLean, K., Barfield, J., & Kularatna, S. (2021). Economic Analysis of Specialist Referral Patterns in Mackay, Queensland Following HealthPathways Implementation. Journal of Primary Care & Community Health, 12. https://doi.org/10.1177/21501327211041489
- 26. Boonjindasup, W., Chang, A. B., Marchant, J. M., Irons, J. Y., & McElrea, M. S. (2021). How Many Maneuvers Should We Do for Maximal Inspiratory and Expiratory Muscle Pressure Testing in Children: A Retrospective Review in Children with Cystic Fibrosis. Lung, 199(2), 213-222. https://doi.org/10.1007/s00408-021-00422-0
- 27. Boonjindasup, W., Marchant, J. M., McElrea, M. S., Yerkovich, S. T., Masters, I. B., & Chang, A. B. (2021). Impact of using spirometry on clinical decision making and quality of life in children: protocol for a single centre randomised controlled trial. BMJ Open, 11(9), e050974. https://doi.org/10.1136/bmjopen-2021-050974
- 28. Boyle, S., Sung-Him Mew, T., Lust, K., McKenzie, S., Javorsky, G., & Parsonage, W. (2021a). Corrigendum to "Pregnancy Following Heart Transplantation: A Single Centre Case Series and Review of the Literature" [Heart Lung Circ 2021;30:144-153.]. Heart Lung Circ, 30(3), 461. https://doi.org/10.1016/j.hlc.2021.02.001
- Boyle, S., Sung-Him Mew, T., Lust, K., McKenzie, S., Javorsky, G., & Parsonage, W. (2021). Pregnancy Following Heart Transplantation: A Single Centre Case Series and Review of the Literature. Heart Lung Circ, 30(1), 144-153. https://doi.org/10.1016/j.hlc.2020.10.007
- 30. Bradford, N., Condon, P., Pitt, E., Tyack, Z., & Alexander, K. (2021). Optimising symptom management in children with cancer using a novel mobile phone application: protocol for a controlled hybrid effectiveness implementation trial (RESPONSE). BMC Health Serv Res, 21(1), 942. https://doi.org/10.1186/s12913-021-06943-x
- 31. Brain, D., & Jadambaa, A. (2021). Economic Evaluation of Long-Term Survivorship Care for Cancer Patients in OECD Countries: A Systematic Review for Decision-Makers. Int J Environ Res Public Health, 18(21). https://doi.org/10.3390/ijerph182111558
- 32. Brain, D., Johnson, D., Hocking, J., & Chang, A. T. (2021). The economic impact of rostering junior doctors to triage to assist nursing staff in the early part of the patient journey through the emergency department. PLoS One, 16(12), e0261303. https://doi.org/10.1371/journal.pone.0261303
- 33. Bulle, E. B., Peake, S. L., Finnis, M., Bellomo, R., Delaney, A., & Investigators, A. (2021). Time to antimicrobial therapy in septic shock patients treated with an early goal-directed resuscitation protocol: A post-hoc analysis of the ARISE trial. Emergency Medicine Australasia, 33(3), 409-417. https://doi.org/10.1111/1742-6723.13634
- 34. Butten, K., Jones, L., Newcombe, P. A., Chang, A. B., Sheffield, J. K., O'Grady, K. F., Johnson, N. W., Bell, A. M., Ross, G., & Toombs, M. (2021). Development and validation of a parent-proxy health-related quality of life survey for Australian First Nations children. BMJ Open, 11(8), e046007. https://doi.org/10.1136/bmjopen-2020-046007
- Butten, K., Newcombe, P. A., Chang, A. B., Sheffield, J. K., O'Grady, K. A. F., Johnson, N. W., King, N., & Toombs, M. (2021). Concepts of Health-Related Quality of Life of Australian Aboriginal and Torres Strait Islander Children: Parent Perceptions. Applied Research in Quality of Life, 16(4), 1653-1671. https://doi.org/10.1007/s11482-020-09840-3
- Byrne, R. A., Baxter, K., Irvine, S., Vidgen, H., Gallegos, D., Martin, E., & Trost, S. G. (2021). Feeding Practices in Australian Early Childhood Education and Care Settings. Public Health Nutrition, 1-21. https://doi.org/10.1017/S1368980021004055
- Carter, H. E., Jeffrey, G. P., Ramm, G. A., & Gordon, L. G. (2021). Cost-Effectiveness of a Serum Biomarker Test for Risk-Stratified Liver Ultrasound Screening for Hepatocellular Carcinoma. Value Health, 24(10), 1454-1462. https://doi.org/10.1016/j.jval.2021.04.1286
- 38. Carter, H. E., Lee, X. J., Farrington, A., Shield, C., Graves, N., Cyarto, E. V., Parkinson, L., Oprescu, F. I., Meyer, C., Rowland, J., Dwyer, T., & Harvey, G. (2021). A stepped-wedge randomised controlled trial assessing the implementation, effectiveness and cost-consequences of the EDDIE+ hospital avoidance program in 12 residential aged care homes: study protocol. BMC Geriatrics, 21(1), 347. https://doi.org/10.1186/s12877-021-02294-8

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39. Chang, A. B., & Beasley, R. (2021). More options for managing severe asthma in adults. Lancet Respiratory Medicine, 9(1), 3-5. https://doi.org/10.1016/S2213-2600(20)30398-2

- 40. Chang, A. B., Boyd, J., Bell, L., Goyal, V., Masters, I. B., Powell, Z., Wilson, C., Zacharasiewicz, A., Alexopoulou, E., Bush, A., Chalmers, J. D., Fortescue, R., Hill, A. T., Karadag, B., Midulla, F., McCallum, G. B., Snijders, D., Song, W. J., Tonia, T., Grimwood, K., & Kantar, A. (2021). Clinical and research priorities for children and young people with bronchiectasis: an international roadmap. ERJ Open Res, 7(3). https://doi.org/10.1183/23120541.00122-2021
- 41. Chang, A. B., Boyd, J., Bush, A., Grimwood, K., Hill, A. T., Powell, Z., Yerkovich, S., Zacharasiewicz, A., Kantar, A., & network. (2021). Children's Bronchiectasis Education Advocacy and Research Network (Child-BEAR-Net): an ERS Clinical Research Collaboration on improving outcomes of children and adolescents with bronchiectasis. Eur Respir J, 58(4). https://doi.org/10.1183/13993003.01657-2021
- 42. Chang, A. B., Fortescue, R., Grimwood, K., Alexopoulou, E., Bell, L., Boyd, J., Bush, A., Chalmers, J. D., Hill, A. T., Karadag, B., Midulla, F., McCallum, G. B., Powell, Z., Snijders, D., Song, W. J., Tonia, T., Wilson, C., Zacharasiewicz, A., & Kantar, A. (2021). European Respiratory Society guidelines for the management of children and adolescents with bronchiectasis. Eur Respir J, 58(2). https://doi.org/10.1183/13993003.02990-2020
- 43. Chang, A. B., Grimwood, K., Boyd, J., Fortescue, R., Powell, Z., & Kantar, A. (2021). Management of children and adolescents with bronchiectasis: summary of the ERS clinical practice guideline. Breathe (Sheff), 17(3). https://doi.org/10.1183/20734735.0105-2021
- 44. Cheng, J., Mackie, A., Chang, A. B., Grimwood, K., Scott, M., King, A., Goyal, V., Marchant, J. M., & O'Grady, K. F. (2021). Medication and healthcare use, parent knowledge and cough in children: A cohort study. Pediatr Pulmonol, 56(7), 2345-2354. https://doi.org/10.1002/ppul.25424
- 46. Clarke, P. M., Roope, L. S. J., Loewen, P. J., Bonnefon, J. F., Melegaro, A., Friedman, J., Violato, M., Barnett, A., & Duch, R. (2021). Public opinion on global rollout of COVID-19 vaccines. Nat Med, 27(6), 935-936. https://doi.org/10.1038/s41591-021-01322-9
- 47. Collaro, A. J., Chang, A. B., Marchant, J. M., Chatfield, M. D., Blake, T. L., & McElrea, M. S. (2021). How do Cormic Index profiles contribute to differences in spirometry values between White and First Nations Australian children? Pediatr Pulmonol, 56(12), 3966-3974. https://doi.org/10.1002/ppul.25692
- 48. Collaro, A. J., Chang, A. B., Marchant, J. M., Chatfield, M. D., Dent, A., Blake, T., Mawn, P., Fong, K., & McElrea, M. S. (2021). Associations between lung function and future cardiovascular morbidity and overall mortality in a predominantly First Nations population: a cohort study. Lancet Reg Health West Pac, 13, 100188. https://doi.org/10.1016/j.lanwpc.2021.100188
- 49. Collaro, A. J., Chang, A. B., Marchant, J. M., Chatfield, M. D., Dent, A., Blake, T., Mawn, P., Fong, K., & McElrea, M. S. (2021). Determinants and Follow-up of Lung Function Data from a Predominantly First Nations Cohort of Adults Referred to Specialist Respiratory Outreach Clinics in Regional and Remote Queensland. Lung, 199(4), 417-425. https://doi.org/10.1007/s00408-021-00453-7
- 50. Collaro, A. J., Chang, A. B., Marchant, J. M., Chatfield, M. D., Vicendese, D., Blake, T. L., McElrea, M. S., & Dharmage, S. C. (2021). Early Childhood Pneumonia Is Associated with Reduced Lung Function and Asthma in First Nations Australian Children and Young Adults. J Clin Med, 10(24). https://doi.org/10.3390/jcm10245727
- 51. Cramb, S., Golledge, J., Zhang, Y., & Lazzarini, P. A. (2021). Re "Trends in Lower Extremity Amputation Incidence in European Union 15+ Countries 1990-2017". Eur J Vasc Endovasc Surg, 61(2), 344-345. https://doi.org/10.1016/j.ejvs.2020.09.013
- 52. Dangor, Z., Verwey, C., Lala, S. G., Mabaso, T., Mopeli, K., Parris, D., Gray, D. M., Chang, A. B., & Zar, H. J. (2021). Lower Respiratory Tract Infection in Children: When Are Further Investigations Warranted? Front Pediatr, 9, 708100. https://doi.org/10.3389/fped.2021.708100

AUSHSI ANNUAL REPORT

29

53. de Jong, L. D., Francis-Coad, J., Waldron, N., Ingram, K., McPhail, S. M., Etherton-Beer, C., Haines, T. P., Flicker, L., Weselman, T., & Hill, A.-M. (2021). Does Free-Text Information in Falls Incident Reports Assist to Explain How and Why the Falls Occurred in a Hospital Setting? Journal of Patient Safety, Publish Ahead of Print. https://doi.org/10.1097/pts.0000000000000033

- Dhanani, J. A., Goodman, S., Ahern, B., Cohen, J., Fraser, J. F., Barnett, A., Diab, S., Bhatt, M., & Roberts, J. A. (2021). Comparative lung distribution of radiolabeled tobramycin between nebulized and intravenous administration in a mechanically-ventilated ovine model, an observational study. International Journal of Antimicrobial Agents, 57(2), 106232. https://doi.org/https://doi.org/10.1016/j.ijantimicag.2020.106232
- Doran, M., Lott, W., Barnett, A., Leach, J., & Ioannidis, J. (2021). The future of grant proposals is video. Nature. https://doi.org/10.1038/d41586-021-00341-3
- du Fay de Lavallaz, J., Badertscher, P., Zimmermann, T., Nestelberger, T., Walter, J., Strebel, I., Coelho, C., Miro, O., Salgado, E., Christ, M., Geigy, N., Cullen, L., Than, M., Javier Martin-Sanchez, F., Di Somma, S., Frank Peacock, W., Morawiec, B., Wussler, D., Keller, D. I., Gualandro, D., Michou, E., Kuhne, M., Lohrmann, J., Reichlin, T., Mueller, C., & Investigators, B. I. (2021). Early standardized clinical judgement for syncope diagnosis in the emergency department. J Intern Med, 290(3), 728-739. https://doi.org/10.1111/joim.13269
- 57. Duch, R., Roope, L. S. J., Violato, M., Becerra, M. F., Robinson, T., Bonnefon, J.-F., Friedman, J., Loewen, P., Mamidi, P., Melegaro, A., Blanco, M., Vargas, J., Seither, J., Candio, P., Cruz, A. G., Hua, X., Barnett, A., & Clarke, P. M. (2021). Who should be first in line for the COVID-19 vaccine? Surveys in 13 countries of the public's preferences for prioritisation. medRxiv, 2021. https://doi.org/10.1101/2021.01.31.21250866
- 58. Engstrom, T., Waller, M., Mullens, A. B., Durham, J., Debattista, J., Wenham, K., Bell, S. F. E., Ariana, A., Gu, Z., Daken, K., Dingle, K., Gilks, C. F., Williams, O. D., & Dean, J. A. (2021). STI and HIV knowledge and testing: a comparison of domestic Australian-born, domestic overseas-born and international university students in Australia. Sexual Health, 18(4), 346-348. https://doi.org/https://doi.org/10.1071/SH21055
- 59. Engstrom, T., Waller, M., Mullens, A. B., Durham, J., Debattista, J., Wenham, K., Bell, S. F. E., Ariana, A., Gu, Z. H., Daken, K., Dingle, K., Gilks, C. F., Williams, O. D., & Dean, J. A. (2021). STI and HIV knowledge and testing: a comparison of domestic Australian-born, domestic overseas-born and international university students in Australia. Sexual Health, 18(4), 346-348. https://doi.org/10.1071/Sh21055
- 60. Epari, D. R., Gurung, R., Hofmann-Fliri, L., Schwyn, R., Schuetz, M., & Windolf, M. (2021). Biphasic plating improves the mechanical performance of locked plating for distal femur fractures. J Biomech, 115, 110192. https://doi.org/10.1016/j.jbiomech.2020.110192
- 61. Flaws, D. F., Barnett, A., Fraser, J., Latu, J., Ramanan, M., Tabah, A., Tippett, V., Tronstad, O., & Patterson, S. (2021). A protocol for tracking outcomes post intensive care. Nursing in Critical Care. https://doi.org/10.1111/nicc.12613
- 62. Foster, A. L., Cutbush, K., Ezure, Y., Schuetz, M. A., Crawford, R., & Paterson, D. L. (2021). Cutibacterium acnes in shoulder surgery: a scoping review of strategies for prevention, diagnosis, and treatment. J Shoulder Elbow Surg, 30(6), 1410-1422. https://doi.org/10.1016/j.jse.2020.11.011
- 63. Foster, A. L., Moriarty, T. F., Zalavras, C., Morgenstern, M., Jaiprakash, A., Crawford, R., Burch, M. A., Boot, W., Tetsworth, K., Miclau, T., Ochsner, P., Schuetz, M. A., Richards, R. G., & Metsemakers, W. J. (2021). The influence of biomechanical stability on bone healing and fracture-related infection: the legacy of Stephan Perren. Injury, 52(1), 43-52. https://doi.org/10.1016/j.injury.2020.06.044
- 64. Frakking, T. T., Teoh, H. J., Shelton, D., Moloney, S., Ward, D., Annetts, K., David, M., Levitt, D., Chang, A. B., Carty, C., Barber, M., Carter, H. E., Mickan, S., Weir, K. A., & Waugh, J. (2021). Effect of Care Coordination Using an Allied Health Liaison Officer for Chronic Noncomplex Medical Conditions in Children: A Multicenter Randomized Clinical Trial. JAMA Pediatr, 176(3), 244-252. https://doi.org/10.1001/jamapediatrics.2021.5465
- 65. Francis-Coad, J., Lee, D.-C. A., Haines, T. P., Morris, M. E., McPhail, S. M., Etherton-Beer, C., Shorr, R., Flicker, L., Weselman, T., Starling, T., & Hill, A.-M. (2021). Fall prevention education for older people being discharged from hospital: Educators' perspectives. Health Education Journal. https://doi.org/10.1177/00178969211032711
- 66. Frear, C. C., Cuttle, L., McPhail, S. M., Chatfield, M. D., Kimble, R., & Griffin, B. R. (2021). Author response to: Comment on: "Randomized clinical trial of negative pressure wound therapy as an adjunctive treatment for small-area thermal burns in children" by Frear et al. British Journal of Surgery. https://doi.org/10.1093/bjs/znaa078

67. Frear, C. C., Griffin, B. R., Cuttle, L., Kimble, R. M., & McPhail, S. M. (2021). Cost-effectiveness of adjunctive negative pressure wound therapy in paediatric burn care: evidence from the SONATA in C randomised controlled trial. Scientific Reports, 11(1), 16650. https://doi.org/10.1038/s41598-021-95893-9

- 68. Frear, C. C., Zang, T., Griffin, B. R., McPhail, S. M., Parker, T. J., Kimble, R. M., & Cuttle, L. (2021). The modulation of the burn wound environment by negative pressure wound therapy: Insights from the proteome. Wound Repair Regen, 29(2), 288-297. https://doi.org/10.1111/wrr.12887
- 69. Geagea, D., Tyack, Z., Kimble, R., Eriksson, L., Polito, V., & Griffin, B. (2021). Hypnotherapy for Procedural Pain and Distress in Children: A Scoping Review Protocol. Pain Med, 22(12), 2818-2826. https://doi.org/10.1093/pm/pnab038
- 70. Gibson, N., Blackmore, A. M., Chang, A. B., Cooper, M. S., Jaffe, A., Kong, W. R., Langdon, K., Moshovis, L., Pavleski, K., & Wilson, A. C. (2021). Prevention and management of respiratory disease in young people with cerebral palsy: consensus statement. Dev Med Child Neurol, 63(2), 172-182. https://doi.org/10.1111/dmcn.14640
- 71. Harvey, C., Byrne, A. L., Willis, E., Brown, J., Baldwin, A., Hegney, A. D., Palmer, J., Heard, D., Brain, D., Heritage, B., Ferguson, B., Judd, J., McLellan, S., Forrest, R., & Thompson, S. (2021). Examining the hurdles in defining the practice of Nurse Navigators. Nurs Outlook, 69(4), 686-695. https://doi.org/10.1016/j.outlook.2021.01.011
- 72. Harvey, G., Pham, C. T., Inacio, M. C., Laver, K., Lynch, E. A., Jorissen, R. N., Karnon, J., Bourke, A., Forward, J., Maddison, J., Whitehead, C., Rupa, J., McNamara, C., & Crotty, M. (2021). An integrated knowledge translation approach to address avoidable rehospitalisations and unplanned admissions for older people in South Australia: implementation and evaluation program plan. Implementation Science Communications, 2(1), 36. https://doi.org/10.1186/s43058-021-00141-w
- 73. Hayward, K. L., McKillen, B. J., Horsfall, L. U., McIvor, C., Liew, K., Sexton, J., Johnson, A. L., Irvine, K. M., Valery, P. C., McPhail, S. M., Britton, L. J., Rosenberg, W., Weate, I., Williams, S., & Powell, E. E. (2021). Towards collaborative management of nonalcoholic fatty liver disease (TCM-NAFLD): a 'real-world' pathway for fibrosis risk assessment in primary care. Internal Medicine Journal. https://doi.org/10.1111/imj.15422
- 74. Henkel, J., Medeiros Savi, F., Berner, A., Fountain, S., Saifzadeh, S., Steck, R., Epari, D. R., Woodruff, M. A., Knackstedt, M., Schuetz, M. A., & Hutmacher, D. W. (2021). Scaffold-guided bone regeneration in large volume tibial segmental defects. Bone, 153, 116163. https://doi.org/10.1016/j.bone.2021.116163
- 75. Hettiarachchi, R. M., Kularatna, S., Byrnes, J., Chen, G., Mulhern, B., & Scuffham, P. A. (2021). Development of a classification (descriptive) system for a preference-based quality of life measure for dental caries (dental caries utility index) among adolescents. J Public Health Dent. https://doi.org/10.1111/jphd.12490
- 76. Hewage, S., Samaraweera, S., Joseph, N., Kularatna, S., & Gunawardena, N. (2021). Does the choice of care pathways matter in timely breast cancer care in Sri Lanka? Cancer Epidemiol, 70. https://doi.org/10.1016/j.canep.2020.101862
- 77. Hielscher, E., Moores, C., Blenkin, M., Jadambaa, A., & Scott, J. G. (2021). Intervention programs designed to promote healthy romantic relationships in youth: A systematic review. Journal of Adolescence, 92, 194-236. https://doi.org/10.1016/j.adolescence.2021.08.008
- 78. Hill, A.-M., Ross-Adjie, G., McPhail, S. M., Biostats, A. J. M., Bulsara, M., Cranfield, A., Etherton-Beer, C., Nurs, N. R. A. M., Powell, S.-J., Hardisty, G., & Monterosso, L. (2021). Incidence and associated risk factors for falls in older adults following elective total knee replacement surgery a prospective cohort study. American Journal of Physical Medicine & Rehabilitation, 76(10), 1814-1820. https://doi.org/10.1097/phm.000000000001848
- 79. Hinchcliff, R. (2021). Advancing the accreditation economy: a critical reflection. Int J Qual Health Care, 33(4). https://doi.org/10.1093/intqhc/mzab154
- 80. Horswill, M. S., Hill, A., Rodwell, D., Larue, G. S., Bates, L., & Watson, B. (2021). A brief and unsupervised online intervention improves performance on a validated test of hazard perception skill used for driver licensing. Transportation Research Part F-Traffic Psychology and Behaviour, 78, 130-136. https://doi.org/10.1016/j.trf.2021.02.003

AUSHSI ANNUAL REPORT 31

81. Inacio, M. C., Jorissen, R. N., Khadka, J., Whitehead, C., Maddison, J., Bourke, A., Pham, C. T., Karnon, J., Wesselingh, S. L., Lynch, E., Harvey, G., Caughey, G. E., & Crotty, M. (2021). Predictors of short-term hospitalization and emergency department presentations in aged care. J Am Geriatr Soc, 69(11), 3142-3156. https://doi.org/10.1111/jgs.17317

- 82. Inacio, M. C., Jorissen, R. N., Wesselingh, S., Sluggett, J. K., Whitehead, C., Maddison, J., Forward, J., Bourke, A., Harvey, G., Crotty, M., Collaborators, S.-S. S., State Action on Avoidable, R., & Unplanned Admission Study, C. (2021). Predictors of hospitalisations and emergency department presentations shortly after entering a residential aged care facility in Australia: a retrospective cohort study. BMJ Open, 11(11), e057247. https://doi.org/10.1136/bmjopen-2021-057247
- 83. Jadambaa, A., Brain, D., Pacella, R., Thomas, H. J., McCarthy, M., Scott, J. G., & Graves, N. (2021). The Economic Cost of Child and Adolescent Bullying in Australia. J Am Acad Child Adolesc Psychiatry, 60(3), 367-376. https://doi.org/10.1016/j.jaac.2020.05.010
- 84. Jadambaa, A., Graves, N., Cross, D., Pacella, R., Thomas, H. J., Scott, J. G., Cheng, Q., & Brain, D. (2021). Economic Evaluation of an Intervention Designed to Reduce Bullying in Australian Schools. Applied Health Economics and Health Policy. https://doi.org/10.1007/s40258-021-00676-y
- Jahan, F., Duncan, E. W., Cramb, S. M., Baade, P. D., & Mengersen, K. L. (2021). Correction to 'Augmenting disease maps: a Bayesian meta-analysis approach'. R Soc Open Sci, 8(2). https://doi.org/10.1098/rsos.210085
- Jarl, G., van Netten, J. J., Lazzarini, P. A., Crews, R. T., Najafi, B., & Mueller, M. J. (2021). Should weight-bearing activity be reduced during healing of plantar diabetic foot ulcers, even when using appropriate offloading devices? Diabetes Res Clin Pract, 175. https://doi.org/10.1016/j.diabres.2021.108733
- 87. Joschtel, B., Gomersall, S. R., Tweedy, S., Petsky, H., Chang, A. B., & Trost, S. G. (2021). Fundamental movement skill proficiency and objectively measured physical activity in children with bronchiectasis: a cross-sectional study. BMC Pulm Med, 21(1), 269. https://doi.org/10.1186/s12890-021-01637-w
- 88. Jun, D., Johnston, V., McPhail, S. M., & O'Leary, S. (2021). A Longitudinal Evaluation of Risk Factors and Interactions for the Development of Nonspecific Neck Pain in Office Workers in Two Cultures. Hum Factors, 63(4), 663-683. https://doi.org/10.1177/0018720820904231
- Kaczmarek, T., Kavanagh, D. J., Lazzarini, P. A., Warnock, J., & Van Netten, J. J. (2021). Training diabetes healthcare practitioners in motivational interviewing: a systematic review. Health Psychol Rev, 1-20. https://doi.org/10.1080/17437199.2021.1926308
- 60. Kaczmarek, T., Van Netten, J. J., Lazzarini, P. A., & Kavanagh, D. (2021). Effects of training podiatrists to use imagery-based motivational interviewing when treating people with diabetes-related foot disease: a mixed-methods pilot study. J Foot Ankle Res, 14(1), 12. https://doi.org/10.1186/s13047-021-00451-1
- 91. Kaladharan, S., Daken, K., Mullens, A. B., & Durham, J. (2021). Tools to measure HIV knowledge, attitudes & practices (KAPs) in healthcare providers: a systematic review. AIDS Care, 33(11), 1500-1506. https://doi.org/10.1080/09540121.2020.1822502
- Kamalpour, M., Eden, R., Syed, R. A., Buys, L., Tariq, A., & Watson, J. (2021). What older adults do in online communities when they co-create and co-destruct value. International Journal of Quality and Service Sciences, 13(3), 433-455. https://doi.org/10.1108/ljqss-03-2020-0043
- Kamalpour, M., Rezaei Aghdam, A., Watson, J., Tariq, A., Buys, L., Eden, R., & Rehan, S. (2021). Online health communities, contributions to caregivers and resilience of older adults. Health Soc Care Community, 29(2), 328-343. https://doi.org/10.1111/hsc.13247
- Kapur, N., Stroil-Salama, E., Morgan, L., Yerkovich, S., Holmes-Liew, C. L., King, P., Middleton, P., Maguire, G., Smith, D., Thomson, R., McCallum, G., Owens, L., & Chang, A. B. (2021). Factors associated with "Frequent Exacerbator" phenotype in children with bronchiectasis: The first report on children from the Australian Bronchiectasis Registry. Respir Med, 188. https://doi.org/10.1016/j.rmed.2021.106627
- 95. Katsu, A., Tyack, Z., Mackey, M., Elliott, J. M., & Mackenzie, L. (2021). Return to employment for working-aged adults after burn injury: a scoping review protocol. BMJ Open, 11(1), e044145. https://doi.org/10.1136/bmjopen-2020-044145

96. Kaye, S. A., Somoray, K., Rodwell, D., & Lewis, I. (2021). Users' acceptance of private automated vehicles: A systematic review and meta-analysis. J Safety Res, 79, 352-367. https://doi.org/10.1016/j.jsr.2021.10.002

- 97. Kemp, J. L., Johnston, R. T. R., Coburn, S. L., Jones, D. M., Schache, A. G., Mentiplay, B. F., King, M. G., Scholes, M. J., De Oliveira Silva, D., Smith, A., McPhail, S. M., & Crossley, K. M. (2021). Physiotherapist-led treatment for femoroacetabular impingement syndrome (the PhysioFIRST study): a protocol for a participant and assessorblinded randomised controlled trial. BMJ Open, 11(4), e041742. https://doi.org/10.1136/bmjopen-2020-041742
- 98. Khan, S., Yousefinezhadi, T., & Hinchcliff, R. (2021). The impact of hospital accreditation in selected Middle East countries: a scoping review. J Health Organ Manag. https://doi.org/10.1108/JHOM-04-2021-0159
- 99. Khatri, R. B., Alemu, Y., Protani, M. M., Karkee, R., & Durham, J. (2021). Intersectional (in) equities in contact coverage of maternal and newborn health services in Nepal: insights from a nationwide cross-sectional household survey. BMC Public Health, 21(1), 1098. https://doi.org/10.1186/s12889-021-11142-8
- 100. Khatri, R. B., Durham, J., & Assefa, Y. (2021). Utilisation of quality antenatal, delivery and postnatal care services in Nepal: An analysis of Service Provision Assessment. Global Health, 17(1), 102. https://doi.org/10.1186/s12992-021-00752-x
- 101. Khatri, R. B., Karkee, R., Durham, J., & Assefa, Y. (2021). Universal coverage of the first antenatal care visit but poor continuity of care across the maternal and newborn health continuum among Nepalese women: analysis of levels and correlates. Global Health, 17(1), 141. https://doi.org/10.1186/s12992-021-00791-4
- 102. Killey, J., Simons, M., & Tyack, Z. (2021). Effectiveness of interventions for optimising adherence to treatments for the prevention and management of scars: A systematic review. Clin Rehabil, 35(5), 656-668. https://doi.org/10.1177/0269215520978528
- 103. Kislov, R., Harvey, G., & Jones, L. (2021). Boundary organising in healthcare: theoretical perspectives, empirical insights and future prospects. Journal of Health Organization and Management, 35(2), 133-140. https://doi.org/10.1108/Jhom-04-2021-475
- 104. Kitson, A. L., Harvey, G., Gifford, W., Hunter, S. C., Kelly, J., Cummings, G. G., Ehrenberg, A., Kislov, R., Pettersson, L., Wallin, L., & Wilson, P. (2021). How nursing leaders promote evidence-based practice implementation at point-of-care: A four-country exploratory study. Journal of Advanced Nursing, 77(5), 2447-2457. https://doi.org/10.1111/jan.14773
- 105. Kularatna, S., Amilani, U., Senanayake, S., Tonmukayakul, U., Jamieson, L., & Arrow, P. (2021). Developing an early childhood oral health impact–specific health-state classification system for a new preference-based instrument, the ECOHIS-4D. Community Dentistry and Oral Epidemiology. https://doi.org/10.1111/cdoe.12650
- 106. Kularatna, S., Rowen, D., Mukuria, C., McPhail, S., Chen, G., Mulhern, B., Whitty, J. A., Byrnes, J., Scuffham, P., Atherton, J., Höfer, S., & Parsonage, W. (2021). Development of a preference-based heart disease-specific health state classification system using MacNew heart disease-related quality of life instrument. Quality of Life Research. https://doi.org/10.1007/s11136-021-02884-4
- 107. Kularatna, S., Senanayake, S., Parsonage, W., Jun, D., & McPhail, S. (2021). Economic burden of patients living with heart disease in the last years of life in Australia: a retrospective analysis using linked data. European Heart Journal Quality of Care and Clinical Outcomes. https://doi.org/10.1093/ehjqcco/qcab006
- Laird, P., Chang, A. B., Jacky, J., Lane, M., Schultz, A., & Walker, R. (2021). Conducting decolonizing research and practice with Australian First Nations to close the health gap. Health Res Policy Syst, 19(1), 127. https:// doi.org/10.1186/s12961-021-00773-3
- 109. Laird, P., Walker, R., Gill, F. J., Whitby, J., Chang, A. B., & Schultz, A. (2021). Respiratory follow-up to improve outcomes for Aboriginal children: twelve key steps. Lancet Reg Health West Pac, 15. https://doi.org/10.1016/j.lanwpc.2021.100239
- 110. Laird, P., Walker, R., Lane, M., Totterdell, J., Chang, A. B., & Schultz, A. (2021). Recognition and Management of Protracted Bacterial Bronchitis in Australian Aboriginal Children: A Knowledge Translation Approach. Chest, 159(1), 249-258. https://doi.org/10.1016/j.chest.2020.06.073

AUSHSI ANNUAL REPORT 33

111. Laurie, L., Lambert, S. B., Jones, L., Boddy, G., & O'Grady, K. F. (2021). Influenza and pertussis vaccine uptake during pregnancy among Australian women in south-east Queensland, Australia. Aust N Z J Public Health, 45(5), 443-448. https://doi.org/10.1111/1753-6405.13133

- 112. Lazzarini, P. A., & Jarl, G. (2021). Knee-High Devices Are Gold in Closing the Foot Ulcer Gap: A Review of Offloading Treatments to Heal Diabetic Foot Ulcers. Medicina (Kaunas), 57(9). https://doi.org/10.3390/medicina57090941
- Lee, K. K., Davenport, P. W., Smith, J. A., Irwin, R. S., McGarvey, L., Mazzone, S. B., Birring, S. S., & Panel, C. E. C. (2021). Global Physiology and Pathophysiology of Cough: Part 1: Cough Phenomenology CHEST Guideline and Expert Panel Report. Chest, 159(1), 282-293. https://doi.org/10.1016/j.chest.2020.08.2086
- 114. Maguire, C., Tyack, Z., Kimble, R. M., Griffin, B. R., Yesberg, H. J., Choo, F. M., & McBride, C. A. (2021). What to measure in biliary atresia research: study protocol for developing a core outcome set. BMJ Open, 11(8), e047224. https://doi.org/10.1136/bmjopen-2020-047224
- Marchant, J. M., Chang, A. B., Schutz, K. L., Versteegh, L., Cook, A., Roberts, J., Morris, P. S., Yerkovich, S. T., & McCallum, G. B. (2021). Utility of a personalised Bronchiectasis Action Management Plan (BAMP) for children with bronchiectasis: protocol for a multicentre, double-blind parallel, superiority randomised controlled trial. BMJ Open, 11(12), e049007. https://doi.org/10.1136/bmjopen-2021-049007
- Marchant, J. M., Cook, A. L., Roberts, J., Yerkovich, S. T., Goyal, V., Arnold, D., O'Farrell, H. E., & Chang, A. B. (2021). Burden of Care for Children with Bronchiectasis from Parents/Carers Perspective. J Clin Med, 10(24). https://doi.org/10.3390/jcm10245856
- 117. Marshall, A., Rawlings, K., Zaluski, S., Gonzalez, P., & Harvey, G. (2021). What do older people want from integrated care? Experiences from a South Australian co-design case study. Australasian Journal on Ageing, 40(4), 406-412. https://doi.org/10.1111/ajag.12947
- 118. Martin, E., Beckmann, M., Blythe, R., Merollini, K., & Graves, N. (2021). Adherence to best practice: Preventing surgical site infection following caesarean section in Australia. Australian and New Zealand Journal of Obstetrics and Gynaecology, 61(5), 728-734. https://doi.org/10.1111/ajo.13347
- 119. Martin, E., Campbell, M., Parsonage, W., Rosengren, D., Bell, S. C., & Graves, N. (2021). What it takes to build a health services innovation training program. Int J Med Educ, 12, 259-263. https://doi.org/10.5116/ijme.61af.30bd
- Martin, J., Pijnenburg, M. W., Roberts, G., Pike, K. C., Petsky, H., Chang, A. B., Szefler, S. J., Gergen, P., Vermeulen, F., Vael, R., & Turner, S. (2021). Does lung function change in the months after an asthma exacerbation in children? Pediatr Allergy Immunol, 32(6), 1208-1216. https://doi.org/10.1111/pai.13503
- 121. McCallum, G. B., Oguoma, V. M., Versteegh, L. A., Wilson, C. A., Bauert, P., Spain, B., & Chang, A. B. (2021). Comparison of Profiles of First Nations and Non-First Nations Children With Bronchiectasis Over Two 5-Year Periods in the Northern Territory, Australia. Chest, 160(4), 1200-1210. https://doi.org/10.1016/j.chest.2021.04.057
- McCreanor, V., Nowbar, A., Rajkumar, C., Barnett, A. G., Francis, D., Graves, N., Boden, W. E., Weintraub, W. S., Al-Lamee, R., & Parsonage, W. A. (2021). Cost-effectiveness analysis of percutaneous coronary intervention for single-vessel coronary artery disease: an economic evaluation of the ORBITA trial. BMJ Open, 11(2), e044054. https://doi.org/10.1136/bmjopen-2020-044054
- 123. McGarvey, L., Rubin, B. K., Ebihara, S., Hegland, K., Rivet, A., Irwin, R. S., Bolser, D. C., Chang, A. B., Gibson, P. G., Mazzone, S. B., & Panel, C. E. C. (2021). Global Physiology and Pathophysiology of Cough: Part 2. Demographic and Clinical Considerations: CHEST Expert Panel Report. Chest, 160(4), 1413-1423. https://doi.org/10.1016/j.chest.2021.04.039
- McHugh, L., O'Grady, K. F., Nolan, T., Richmond, P. C., Wood, N., Marshall, H. S., Lambert, S. B., Chatfield, M. D., Perrett, K. P., Binks, P., Binks, M. J., & Andrews, R. M. (2021). National predictors of influenza vaccine uptake in pregnancy: the FluMum prospective cohort study, Australia, 2012-2015. Aust N Z J Public Health, 45(5), 455-461. https://doi.org/10.1111/1753-6405.13130

25. McInnes, E., Harvey, G., Hiller, J. E., Phillips, R., Page, T., & Wiechula, R. (2021). Factors affecting procurement of wound care products: a qualitative study of hospital managers and clinicians. Aust Health Rev, 45(1), 66-73. https://doi.org/10.1071/AH19250

- 126. McPhail, S. M., Amarasena, S., Stuart, K. A., Hayward, K., Gupta, R., Brain, D., Hartel, G., Rahman, T., Clark, P. J., Bernardes, C. M., Skoien, R., Mckillen, B., Lee, A., Pillay, L., Lin, L., Khaing, M. M., Horsfall, L., Powell, E. E., & Valery, P. C. (2021). Assessment of health-related quality of life and health utilities in Australian patients with cirrhosis. JGH Open, 5(1), 133-142. https://doi.org/10.1002/jgh3.12462
- 127. Mehra, S., Chang, A. B., Lam, C. K., Campbell, S., Mingi, J. J., Thomas, I., Harwood, S., Maguire, G., & Heraganahally, S. (2021). Bronchiectasis among Australian Aboriginal and non-Aboriginal patients in the regional and remote population of the Northern Territory of Australia. Rural Remote Health, 21(2), 6390. https://doi.org/10.22605/RRH6390
- 128. Mehta, D., Kelly, A. B., Laurens, K. R., Haslam, D., Williams, K. E., Walsh, K., Baker, P. R. A., Carter, H. E., Khawaja, N. G., Zelenko, O., & Mathews, B. (2021). Child Maltreatment and Long-Term Physical and Mental Health Outcomes: An Exploration of Biopsychosocial Determinants and Implications for Prevention. Child Psychiatry Hum Dev. https://doi.org/10.1007/s10578-021-01258-8
- 129. Morris, M. E., Haines, T., Hill, A. M., Cameron, I. D., Jones, C., Jazayeri, D., Mitra, B., Kiegaldie, D., Shorr, R. I., & McPhail, S. M. (2021). Divesting from a Scored Hospital Fall Risk Assessment Tool (FRAT): A Cluster Randomized Non-Inferiority Trial. Journal of the American Geriatrics Society, 69(9), 2598-2604. https://doi.org/10.1111/jgs.17125
- 130. Naseri, C., McPhail, S. M., Morris, M. E., Haines, T. P., Etherton-Beer, C., Shorr, R., Flicker, L., Bulsara, M., Lee, D. A., Francis-Coad, J., Waldron, N., & Hill, A. M. (2021). Tailored Education Increased Capability and Motivation for Fall Prevention in Older People After Hospitalization. Front Public Health, 9. https://doi.org/10.3389/fpubh.2021.683723
- Nelson, M., Russell, T., Crossley, K., Bourke, M., & McPhail, S. (2021). Cost-effectiveness of telerehabilitation versus traditional care after total hip replacement: A trial-based economic evaluation. J Telemed Telecare, 27(6), 359-366. https://doi.org/10.1177/1357633X19869796
- 132. O'Grady, K. F., Mahon, J., Arnold, D., Grimwood, K., Hall, K. K., Goyal, V., Marchant, J. M., Phillips, N., Acworth, J., King, A., Scott, M., & Chang, A. B. (2021). Predictors of the Development of Protracted Bacterial Bronchitis following Presentation to Healthcare for an Acute Respiratory Illness with Cough: Analysis of Three Cohort Studies. J Clin Med, 10(24). https://doi.org/10.3390/jcm10245735
- 133. Osborne, S., Cleak, H., White, N., Lee, X., Deacon, A., & de Looze, J. W. M. (2021). Effectiveness of clinical criteria in directing patient flow from the emergency department to a medical assessment unit in Queensland, Australia: a retrospective chart review of hospital administrative data. BMC Health Services Research, 21(1), 527. https://doi.org/10.1186/s12913-021-06537-7
- 134. Parsonage, W. A., & Chew, D. P. (2021). The Cardiac Society of Australia and New Zealand (CSANZ) Guidelines and Quality Standards Committee: How to use it. A guide for fellows and authors. Heart Lung Circ, 30(4), 469-470. https://doi.org/10.1016/j.hlc.2021.02.003
- 135. Parsonage, W. A., Zentner, D., Lust, K., Kane, S. C., & Sullivan, E. A. (2021). Heart Disease and Pregnancy: The Need for a Twenty-First Century Approach to Care.... Heart Lung Circ, 30(1), 45-51. https://doi.org/10.1016/j.hlc.2020.06.021
- 136. Parsons, R., Cramb, S. M., & McPhail, S. M. (2021). Clinical prediction models for hospital falls: a scoping review protocol. BMJ Open, 11(9), e051047. https://doi.org/10.1136/bmjopen-2021-051047
- 137. Pascale, M. T., Rodwell, D., Coughlan, P., Kaye, S. A., Demmel, S., Dehkordi, S. G., Bond, A., Lewis, I., Rakotonirainy, A., & Glaser, S. (2021). Passengers' acceptance and perceptions of risk while riding in an automated vehicle on open, public roads. Transportation Research Part F-Traffic Psychology and Behaviour, 83, 274-290. https://doi.org/10.1016/j.trf.2021.10.012
- 138. Perrin, B. M., Raspovic, A., Williams, C. M., Twigg, S. M., Golledge, J., Hamilton, E. J., Crawford, A., Hargreaves, C., van Netten, J. J., Purcell, N., & Lazzarini, P. A. (2021). Establishing the national top 10 priority research questions to improve diabetes-related foot health and disease: a Delphi study of Australian stakeholders. BMJ Open Diabetes Res Care, 9(2). https://doi.org/10.1136/bmjdrc-2021-002570

AUSHSI ANNUAL REPORT

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139. Powell, P. K., Lawler, S., Durham, J., & Cullerton, K. (2021). The food choices of US university students during COVID-19. Appetite, 161. https://doi.org/10.1016/j.appet.2021.105130

- Prime, S. J., Carter, H. E., McPhail, S. M., Petsky, H. L., Chang, A. B., Graves, N., & Marchant, J. M. (2021). Chronic wet cough in Australian children: Societal costs and quality of life. Pediatric Pulmonology, 56(8), 2707-2716. https://doi.org/10.1002/ppul.25438
- 141. Raciti, M., Badejo, F. A., Previte, J., & Schuetz, M. (2021). Commentary: The moral limits of service markets just because we can, should we? Journal of Services Marketing. https://doi.org/10.1108/JSM-06-2021-0212
- 142. Reddihough, D. S., & Chang, A. B. (2021). The challenges of posterior drooling in children with cerebral palsy. Dev Med Child Neurol, 63(9), 1013. https://doi.org/10.1111/dmcn.14898
- 143. Remond, M. G. W., Li, Z., Vaughan, G., Frawley, J., Peek, M. J., Carapetis, J. R., Remenyi, B., Parsonage, W., McLintock, C., & Sullivan, E. A. (2021). The Spectrum, Severity and Outcomes of Rheumatic Mitral Valve Disease in Pregnant Women in Australia and New Zealand. Heart Lung Circ, 31(4), 480-490. https://doi.org/10.1016/j.hlc.2021.10.017
- 144. Rodewald, L. E., Shen, K. L., Yang, Y. H., Wong, G. W., Namazova-Baranova, L., Rosenwasser, L. J., Alharbi, A. S., Chang, A. B., Buttery, J., Elnazir, B., Etzel, R. A., Goh, A., Hoey, H., Horne, R., Kerem, E., Muraro, A., O'Callaghan, C., Ouchi, K., Singh, V., Wang, J. Y., Li, S., Guan, Y., Global Pediatric Pulmonology Alliance, C., Zheng, Y. J., Xie, Z., Lu, G., Jiang, Y., Li, X. W., Jiang, R. M., Wang, X. C., Deng, J. K., Lu, X. X., Xu, B. P., Wei, Z., Feng, L. Z., Zhao, Z. Y., Global Pediatric Pulmonology Alliance Expert Panel on Infectious, D., & Covid. (2021). Global Pediatric Pulmonology Alliance (GPPA) proposal for COVID-19 vaccination in children. World J Pediatr, 17(5), 458-461. https://doi.org/10.1007/s12519-021-00459-4
- 145. Rodwell, D., Alexander, M., Bates, L., Larue, G. S., & Watson, B. (2021). Parents' perceptions of driver education: A theoretically guided qualitative investigation. Transportation Research Part F-Traffic Psychology and Behaviour, 77, 293-311. https://doi.org/10.1016/j.trf.2021.01.009
- 146. Ruffles, T. J. C., Goyal, V., Marchant, J. M., Masters, I. B., Yerkovich, S., Buntain, H., Cook, A., Schultz, A., Upham, J. W., Champion, A., Versteegh, L., & Chang, A. B. (2021). Duration of amoxicillin-clavulanate for protracted bacterial bronchitis in children (DACS): a multi-centre, double blind, randomised controlled trial. Lancet Respiratory Medicine, 9(10), 1121-1129. https://doi.org/10.1016/S2213-2600(21)00104-1
- 147. Ruffles, T. J. C., Marchant, J. M., Masters, I. B., Yerkovich, S. T., Wurzel, D. F., Gibson, P. G., Busch, G., Baines, K. J., Simpson, J. L., Smith-Vaughan, H. C., Pizzutto, S. J., Buntain, H. M., Hodge, G., Hodge, S., Upham, J. W., & Chang, A. B. (2021). Outcomes of protracted bacterial bronchitis in children: A 5-year prospective cohort study. Respirology, 26(3), 241-248. https://doi.org/10.1111/resp.13950
- 148. Sarai, H., Schmutz, B., & Schuetz, M. (2021). Effects of ethnicity on proximal femoral intramedullary nail protrusion-a 3D computer graphical analysis. Arch Orthop Trauma Surg, 141(5), 845-853. https://doi.org/10.1007/s00402-020-03539-8
- 149. Sarai, H., Schmutz, B., & Schuetz, M. (2021). Potential pitfalls of lateral radiographic assessment of the nail position in the distal femur. Arch Orthop Trauma Surg. https://doi.org/10.1007/s00402-021-03851-x
- 150. Scanlon, B., Brough, M., Wyld, D., & Durham, J. (2021). Equity across the cancer care continuum for culturally and linguistically diverse migrants living in Australia: a scoping review. Globalization and Health, 17(1), 87. https://doi.org/10.1186/s12992-021-00737-w
- 151. Scott, A. M., Chalmers, I., Barnett, A., Stephens, A., Kolstoe, S. E., Clark, J., & Glasziou, P. (2021). 'The ethics approval took 20 months on a trial which was meant to help terminally ill cancer patients. In the end we had to send the funding back': a survey of views on human research ethics reviews. Journal of Medical Ethics. https://doi.org/10.1136/medethics-2020-106785
- 152. Scott, A. M., Chalmers, I., Barnett, A., Stephens, A., Kolstoe, S. E., Clark, J., Matthews, R., & Glasziou, P. (2021). Exempting low-risk health research from ethics reviews to better serve the interests of the patients and public: a qualitative analysis of survey responses. medRxiv. https://doi.org/10.1101/2021.02.01.21250961
- 153. Scott, I. A., & McPhail, S. M. (2021). Sociocognitive approach to behaviour change for reducing low-value care. Aust Health Rev, 45(2), 173-177. https://doi.org/10.1071/AH20209

154. Senanayake, S., Abell, B., Novick, M., Exley, H., Dolejs, W., Hutchinson, K., McPhail, S., & Kularatna, S. (2021). Impact and outcome evaluation of HealthPathways: a scoping review of published methodologies. Journal of Primary Health Care, 13(3), 260-273. https://doi.org/https://doi.org/10.1071/HC21067

- 155. Senanayake, S., Graves, N., Healy, H., Baboolal, K., Barnett, A., & Kularatna, S. (2021). Time-to-event analysis in economic evaluations: a comparison of modelling methods to assess the cost-effectiveness of transplanting a marginal quality kidney. Health Economics Review, 11(1), 13. https://doi.org/10.1186/s13561-021-00312-4
- 156. Senanayake, S., Kularatna, S., Healy, H., Graves, N., Baboolal, K., Sypek, M. P., & Barnett, A. (2021). Development and validation of a risk index to predict kidney graft survival: the kidney transplant risk index. BMC Medical Research Methodology, 21(1), 127. https://doi.org/10.1186/s12874-021-01319-5
- 157. Seneviratne, S., Ginige, S., Kularatna, S., & Gunawardena, N. (2021). Cultural Adaptation, Translation and Validation of Tuberculosis Specific Health Related Quality of Life Measuring Functional Assessment of Chronic Illness Therapy Tuberculosis (FACIT-TB) Scale in Sri Lanka. Applied Research in Quality of Life. https://doi.org/10.1007/s11482-021-09927-5
- 158. Shoobridge, J., Schultz, T., Harvey, G., & Kirby, N. (2021). Using an implementation science approach to build leader facilitation capability in healthcare: a novel approach for enhancing action learning set facilitation. J Health Organ Manag. https://doi.org/10.1108/JHOM-12-2020-0510
- 159. Simons, M., Kimble, R., & Tyack, Z. (2021). Understanding the meaning of trauma-informed care for burns health care professionals in a pediatric hospital: A qualitative study using interpretive phenomenological analysis. Burns. https://doi.org/10.1016/j.burns.2021.10.015
- 160. Smith-Vaughan, H. C., Cheng, A. C., Tabrizi, S. N., Wurzel, D. F., Beissbarth, J., Leach, A. J., Morris, P. S., Binks, M. J., Torzillo, P. J., Chang, A. B., & Marsh, R. L. (2021). Absence of human papillomavirus in nasopharyngeal swabs from infants in a population at high risk of human papillomavirus infection. Pediatr Investig, 5(2), 136-139. https://doi.org/10.1002/ped4.12262
- 161. Sychareun, V., Durham, J., Choummanivong, M., Taikeophithoun, C., Phommavongsa, P., Somphet, V., Thammavongsa, V., & Petitet, P. H. (2021). Lifestyles, sexuality and gender: vulnerability to STIs and unplanned pregnancy among female migrant beer promoters in Lao PDR. Cult Health Sex, 1-16. https://doi.org/10.1080/13691058.2021.1913233
- Teoh, L., & Chang, A. B. (2021). Bird's eye overview of asthma in children. Indian J Med Res, 154(1), 8-11. https://doi.org/10.4103/ijmr.IJMR\_931\_21
- 163. Teoh, L., Chatfield, M. D., Acworth, J. P., McCallum, G. B., & Chang, A. B. (2021). Determinants of cough and caregivers' quality of life in pediatric asthma exacerbations. Pediatr Pulmonol, 56(2), 371-377. https://doi.org/10.1002/ppul.25168
- Teoh, L., Chatfield, M. D., Acworth, J. P., McCallum, G. B., & Chang, A. B. (2021). How Does the Canadian Acute Respiratory Illness and Flu Scale Relate to Other Scales in Pediatric Asthma Exacerbations? J Asthma, 1-10. https://doi.org/10.1080/02770903.2021.1946823
- Toloo, G. S., Lim, D., Chu, K., Kinnear, F. B., Morel, D. G., Wraith, D., & FitzGerald, G. (2021). Acceptability of emergency department triage nurse's advice for patients to attend general practice: A cross-sectional survey. Emerg Med Australas. https://doi.org/10.1111/1742-6723.13903
- 166. Topp, S. M., Tully, J., Cummins, R., Graham, V., Yashadhana, A., Elliott, L., & Taylor, S. (2021). Unique knowledge, unique skills, unique role: Aboriginal and Torres Strait Islander Health Workers in Queensland, Australia. BMJ Global Health, 6(7), e006028. https://doi.org/10.1136/bmjgh-2021-006028
- Tsang, Y. P., Marchant, J. M., Li, A. M., & Chang, A. B. (2021). Stability of sputum inflammatory phenotypes in childhood asthma during stable and exacerbation phases. Pediatr Pulmonol, 56(6), 1484-1489. https://doi.org/10.1002/ppul.25347
- Tulleners, R., Blythe, R., Dionisio, S., & Carter, H. (2021). Resource use and costs associated with epilepsy in the Queensland hospital system: protocol for a population-based data linkage study. BMJ Open, 11(12), e050070. https://doi.org/10.1136/bmjopen-2021-050070

AUSHSI ANNUAL REPORT 37

Turrell, G., Nathan, A., Burton, N. W., Brown, W. J., McElwee, P., Barnett, A. G., Pachana, N. A., Oldenburg, B., Rachele, J. N., Giskes, K., & Giles-Corti, B. (2021). Cohort Profile: HABITAT-a longitudinal multilevel study of physical activity, sedentary behaviour and health and functioning in mid-to-late adulthood. Int J Epidemiol, 50(3), 730-731h. https://doi.org/10.1093/ije/dyaa175

- Tutarel, O., Ramlakhan, K. P., Baris, L., Subirana, M. T., Bouchardy, J., Nemes, A., Vejlstrup, N. G., Osipova, O. A., Johnson, M. R., Hall, R., Roos-Hesselink, J. W., & \*, R. I. G. (2021). Pregnancy Outcomes in Women After Arterial Switch Operation for Transposition of the Great Arteries: Results From ROPAC (Registry of Pregnancy and Cardiac Disease) of the European Society of Cardiology EURObservational Research Programme. J Am Heart Assoc, 10(1), e018176. https://doi.org/10.1161/JAHA.120.018176
- 171. Tyack, Z., Simons, M., McPhail, S. M., Harvey, G., Zappala, T., Ware, R. S., & Kimble, R. M. (2021). Improving the patient-centred care of children with life-altering skin conditions using feedback from electronic patient-reported outcome measures: protocol for a hybrid effectiveness-implementation study (PEDS-ePROM). BMJ Open, 11(4), e041861. https://doi.org/10.1136/bmjopen-2020-041861
- 172. Valery, P. C., McPhail, S., Stuart, K. A., Hartel, G., Clark, P. J., O'Beirne, J., Skoien, R., Rahman, T., Moser, C., & Powell, E. E. (2021). Changing prevalence of aetiological factors and comorbidities among Australians hospitalised for cirrhosis. Internal Medicine Journal, 51(5), 691-698. https://doi.org/https://doi.org/10.1111/imj.14809
- 173. Vallmuur, K., Cameron, C. M., Watson, A., & Warren, J. (2021). Comparing the accuracy of ICD-based severity estimates to trauma registry-based injury severity estimates for predicting mortality outcomes. Injury. https://doi.org/10.1016/j.injury.2021.05.016
- 174. Vallmuur, K., McCreanor, V., Cameron, C., Watson, A., Shibl, R., Banu, S., McPhail, S. M., & Warren, J. (2021). Three Es of linked injury data: Episodes, Encounters and Events. Injury Prevention. https://doi.org/10.1136/injuryprev-2020-044098
- 175. Vujcich, D., Roberts, M., Brown, G., Durham, J., Gu, Z., Hartley, L., Lobo, R., Mao, L., Moro, P., Mullens, A. B., Offord, B., Oudih, E., & Reid, A. (2021). Are sexual health survey items understood as intended by African and Asian migrants to Australia? Methods, results and recommendations for qualitative pretesting. BMJ Open, 11(12), e049010. https://doi.org/10.1136/bmjopen-2021-049010
- 176. Vuong, K. A., Manzanero, S., Ungerer, J. P. J., Mitchell, G., McWhinney, B., Vallmuur, K., Warren, J., McCreanor, V., Howell, T., Pollard, C., Schuetz, M., Zournazi, A., & Cameron, C. M. (2021). Prevalence of Alcohol Consumption in Emergency department presentations (PACE) in Queensland, Australia, using alcohol biomarkers ethanol and phosphatidylethanol: an observational study protocol. BMJ Open, 11(11), e047887. https://doi.org/10.1136/bmjopen-2020-047887
- Wildi, K., Li Bassi, G., Barnett, A., Panigada, M., Colombo, S. M., Bandera, A., Muscatello, A., McNicholas, B., Laffey, J. G., Battaglini, D., Robba, C., Torres, A., Motos, A., Luna, C. M., Rainieri, F., Hodgson, C., Burrell, A. J. C., Buscher, H., Dalton, H., Cho, S. M., Choi, H. A., Thomson, D., Suen, J., & Fraser, J. F. (2021). Design and Rationale of a Prospective International Follow-Up Study on Intensive Care Survivors of COVID-19: The Long-Term Impact in Intensive Care Survivors of Coronavirus Disease-19-AFTERCOR. Front Med (Lausanne), 8. https://doi.org/10.3389/fmed.2021.738086
- Wiseman, J., Simons, M., Kimble, R., Ware, R. S., McPhail, S. M., & Tyack, Z. (2021). Effectiveness of topical silicone gel and pressure garment therapy for burn scar prevention and management in children 12-months postburn: A parallel group randomised controlled trial. Clinical Rehabilitation, 35(8), 1126-1141. https://doi.org/10.1177/02692155211020351
- Wu, J., Bracken, J., Lam, A., Francis, K. L., Ramanauskas, F., Chang, A. B., Robinson, P., McCallum, P., & Wurzel, D. F. (2021). Refining diagnostic criteria for paediatric bronchiectasis using low-dose CT scan. Respir Med, 187. https://doi.org/10.1016/j.rmed.2021.106547
- 180. Yu, X. Q., Dasgupta, P., Kahn, C., Kou, K., Cramb, S., & Baade, P. (2021). Crude probability of death for cancer patients by spread of disease in New South Wales, Australia 1985 to 2014. Cancer Med, 10(11), 3524-3532. https://doi.org/10.1002/cam4.3844

Zhang, Y., Carter, H., Lazzarini, P., Cramb, S., Pacella, R., Netten, J. v., Cheng, Q., Derhy, P., Kinnear, E., & McPhail, S. (2021). Cost-effectiveness of guideline-based care for diabetes-related foot ulcers: using discrete event simulation in economic evaluation. International Journal of Epidemiology, 50(Supplement\_1). https://doi.org/10.1093/ije/dyab168.754

- Zhang, Y., Cramb, S., McPhail, S., Pacella, R., van Netten, J., Cheng, Q., Derhy, P., Kinnear, E., & Lazzarini, P. (2021). Flexible parametric survival models investigating factors associated with diabetes-related foot ulcer time-to-healing. International Journal of Epidemiology, 50(Supplement\_1). https://doi.org/10.1093/ije/dyab168.753
- 183. Zhang, Y., Cramb, S., McPhail, S. M., Pacella, R., van Netten, J. J., Cheng, Q., Derhy, P. H., Kinnear, E. M., & Lazzarini, P. A. (2021). Factors Associated With Healing of Diabetes-Related Foot Ulcers: Observations From a Large Prospective Real-World Cohort. Diabetes Care. https://doi.org/10.2337/dc20-3120
- 184. Zhang, Y., van Netten, J. J., Baba, M., Cheng, Q., Pacella, R., McPhail, S. M., Cramb, S., & Lazzarini, P. A. (2021). Diabetes-related foot disease in Australia: a systematic review of the prevalence and incidence of risk factors, disease and amputation in Australian populations. Journal of Foot and Ankle Research, 14(1), 8. https://doi.org/10.1186/s13047-021-00447-x

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#### **Appendix 2: AusHSI Research Projects Awarded in 2021**

The table below is a summary of funding awarded to AusHSI Chief Investigators (up until Oct 2021).

Figures represent Total Funding Awarded, and include funds administered by, or distributed to, collaborators external to AusHSI/QUT.

Project Funding Awarded								
	20	19	202	20	2021	(YTD)	To	tal
Project Type	Awarded \$	Approved #	Awarded \$	Approved #	Awarded \$	Approved #	Awarded \$	Approved #
Competitive Research Grant	\$954,4248	27	\$12,114,419	23	\$2,992,160	9	\$24,650,827	60
Commercial Research	\$266,573	4	\$2,532,100	10	\$85,669	5	\$2,884,342	19
Major Research Initiatives Award			\$1,872,412	2			\$1,872,412	2
Consultancy			\$50,000	1	\$20,000	1	\$70,000	2
Externally Funded Scholarships			\$164,249	2	\$225,245	2	\$389,494	4
Grand Total	\$9,810,821	31	\$16,733,180	38	\$3,323,074	17	\$29,867,075	87

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	PRIMARY GRANT SCHEME NAME	PROJECT TOTAL FUNDS APPROVED
COMPETITIVE RESEARCH GRANT	-s			
Dual-Centre Double Blind Ran- domised Controlled Trial (RCT) on Erdosteine for Improving Outcomes of Children with Bronchiectasis	Anne Chang, I. Brent Masters, Steven McPhail, Julie Marchant, Vikas Goyal, Margaret McElrea, Anne Cook, Daniel Arnold	2021 - 2023	Children's Health Foundation Queensland/ Children's Hospital Foundation	\$298,850
Statistical Methods for Quantifying Variation in Spatiotemporal Areal Data	Kerrie Mengersen, Joanne Frances Aitken, Susanna Cramb, Peter Baade, Darren Wraith, Mery Thompson	2021 - 2024	ARC Linkage Projects	\$597,820
Driving Transformative Improvements in Cardiac Rehabilitation Services in Order to Enhance Outcomes Following Cardiac Events	William Parsonage, Bridget Abell, Steven McPhail, Victoria McCreanor, Muhandiramalage Kularatna	2021 -2022	Defence Health Foundation Grants for Medical Research	\$73,482
Pilot Testing of a Collaborative Shared Care Model for Detecting Neurodevelopmental Impairments after Critical Illness in Young Children	Deborah Long, Samudragupta Bora, Belinda L. Dow, Kristen Gibbons, James Best, Kerri-Lynn Webb, Christian Stocker, Helen Liley, Zephanie Tyack, Debra Thoms, Carolyn Wharton	2021 - 2022	Children's Health Foundation Queensland/ Children's Hospital Foundation	\$49,962

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	PRIMARY GRANT SCHEME NAME	PROJECT TOTAL FUNDS APPROVED
COMPETITIVE RESEARCH GRANT	'S			
Codesign of a Health Literacy Framework (CaLD): Supporting Sexual Health Providers Meet the Needs of CaLD Young People	Margaret Durham, Amy Mullens, Bridget Abell, Kate Murray, Daniel Vujcich, Corie Gray, Faye Tafa, Brighid Scanlon, Kirstie Dakin, Joseph Debattista, Zhihong Gu, Naawa Sipilanyambe, Richard Osborne, Alison Reid, Gemma Crawford, Roanna Lobo	2021 - 2022	ASHM Sexual Health Research Fund	\$90,535
Novel modelling to improve decision-making for neighbourhood design to reduce chronic disease risk	Mark Daniel, Gavin Turrell, Suzanne Carroll, Margaret Cargo, Yogi Vidyattama, Khandoker Shuvo Bakar, Luis Salvador-Carulla, Nasser Bagheri, Anne Taylor, <b>Susanna Cramb</b>	2021 - 2024	NHMRC Ideas Grants	In-kind
Efficacy and acceptability of custom- made footwear in people with a history of diabetes-related foot ulcers	Jonathan Golledge, Malindu Fernando, Eric Lai, Kurwarjit Sangla, Jon Herreen, Ramesh Valu, Sean Taylor, <b>Peter</b> <b>Lazzarini</b> , Joseph Moxon, Aaron Drovandi	2021 - 2023	Tropical Australian Academic Health Centre Seed Funding Scheme 2020	In-kind
Implementation of Negative Pressure for Acute Paediatric Burns	Bronwyn Griffin, Roy M. Kimble, Fiona Wood, Andrew Holland, <b>Steven McPhail</b> , Warwick Teague, Leila Cuttle, Jeremy Duff, Natalie Phillips, Dianne Crellin, Yvonne Singer, Cody Frear, Dimitrios Vagenas, Paula Calleja	2021 - 2024	NHMRC Partnership Projects	In-kind
An International collaboration to improve the care of children with bronchiectasis (Improve Bronchiectasis CRC)	Anne Chang, Keith Grimwood, Jeanette Boyd, Andy Bush, Rebecca Fortescue, Bulent Karadag, Efthymia Alexopoulou, Angela Zacharasiewicz, Oleksandr Mazulov, Andrew Collaro, Carolina Constant, Jonathan Grigg, Christine Wilson, Adam T. Hill, James Chalmers, Marijke Proesmans, Dominik Hartl, Andreas Hector, Fabio Midulla, Alexander Miller, Matthias Griese	2021 - 2024	European Respiratory Society	\$70,827
Oral Bacterial Lysate to Prevent Persistent Wheeze in Infants After Severe Bronchiolitis; A Randomised Placebo Controlled Trial (BLIPA; Bacterial Lysate in Preventing Asthma)	Anne Chang, Keith Grimwood, Jonathan Grigg, Danielle Wurzel, Steven McPhail, Hiran Selvadurai, Allan W. Cripps, Gabrielle McCallum, Debby Bogaert, Stephanie T. Yerkovich, Peter Stanley Morris, Robyn Marsh, Julie Marchant	2021 - 2026	Medical Research Future Fund (MRFF) - Clinical Trials Activity	\$1,598,381

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PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	PRIMARY GRANT SCHEME NAME	PROJECT TOTAL FUNDS APPROVED
COMPETITIVE RESEARCH GRANT	'S			
Perinatal microbe-host interactions regulate neonatal dendritic cell development	Simon Phipps, Paul Dennis, <b>Anne Chang</b>	2021 - 2024	NHMRC Ideas Grant	\$94,848
Understanding chronic cough in children; an extension to further explore protracted bacterial bronchitis	Robyn L Marsh, <b>Margaret</b> <b>McElrea</b>	2021 - 2023	NHMRC Ideas	\$117,455
The Staphylococcus aureus Network Adaptive Platform Trial	Steven Y.C. Tong, Joshua Davis, Steve Webb, Allen Cheng, Julie Marsh, David Lye, Nick Daneman, Asha Bowen, David Paterson, Benjamin Howden, Dafna Yahav, David Price, Genevieve Walls, George Heriot, Hannah Carter, Sebastiaan van Hal, Thomas Snelling, Vance Fowler	2021 - 2025	2019 Clinical Trials and Cohort Studies	In-kind
Panurama Inter-facility Transfer Tool Validation: A validation study of the Paediatric Non-Urgent, Risk Assessment, Mgnt and nurse escort Asmt [Panurama] Tool for safe children's inter-facility Transfer	Michelle Davison, Clare Thomas, Bronwyn Griffin, Muhandiramalage Kularatna, Lauren MacDowall, Nicole White, Roni Cole, David Crookston, Anthony Slater, Michelle Thompson, Sharri Mace, Sarah Davidson	2021 - 2022	Emergency Medicine Foundation Ltd	\$99,659
CONSULTANCIES				
Children's Hospital Foundation Grant Round Support	Megan Campbell, Steven McPhail, Muhandiramalage Kularatna, Bridget Abell, Nicole White, Adrian Barnett, William Parsonage, Hannah Carter, David Brain, Zephanie Tyack, Sameera Jayan Senanayake, Jaimi Greenslade, Michelle Allen, Olivia Fisher, Sundresan Naicker, Ruth Tulleners, Carla Shield	2021	Children's Hospital Foundation Queensland	\$20,000

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	PRIMARY GRANT SCHEME NAME	PROJECT TOTAL FUNDS APPROVED
COMMERCIAL RESEARCH				
NSW End of Life and Palliative Care Framework evaluation	David Brain, Carla Shield	2021	ARTD Pty Ltd	\$8,430
Paediatric Sepsis Bundle Evaluation	Robin Blythe, Muhandiramalage Kularatna	2021	Children's Health Queensland Hospital and Health Service	\$19,990
Refugee health: evaluation of delivery of COVID-19 information	Bridget Abell, Megan Campbell	2021	Mater Misericordiae Ltd	\$12,249
Early Childhood Oral Health Impact Scale (ECOHIS) 4D classification system	Muhandiramalage Kularatna, Megan Campbell	2021	WA Department of Health	\$25,000
Investing in Healthcare - how to get the most out of your resources	Hannah Carter, Steven McPhail, Megan Campbell	2021 - 2022	Australian Institute of Sport	\$20,000
Evaluation of the Program of Assistance for Survivors of Torture and Trauma (PASTT)	Steven McPhail, Gillian Harvey, Megan Campbell, Sanjeewa Kularatna, Zephanie Tyack, Bridget Abell, Jo Durham, Hannah Carter	2021 - 2022	Suicide Prevention and Digital Branch, Mental Health Division, Department of Health	\$660,319
EXTERNALLY FUNDED SCHOLARS	SHIPS			
An evaluation of Quitline Queensland	Kerry-Ann O'Grady	2021 - 2025	Preventive Health Branch	\$140,000
Reference Values for Spirometry, Lung Volumes, Diffusing Capacity, and Fractional Exhaled Nitric Oxide in First Nations Australians	Margaret McElrea, Andrew Collaro	2021 - 2023	NHMRC - Dora Lush Biomedical Postgraduate Research Scholarship	\$85,245
			,	TOTAL: \$4,083,052

#### **Appendix 3: AusHSI Research Projects Ongoing and Completed in 2021**

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	GRANT SCHEME NAME
Measuring Health-Related Quality of Life in Young Indigenous Children	Kerry-Ann O'Grady	2018 -2021	Children's Health Queensland Hospital and Health Service (CHQHHS)
An Early Detection Program to Prevent Un- necessary Hospital Admissions of Aged Care Residents	Gillian Harvey, Trudy Dwyer, Nicholas Graves, Lynne Parkinson, Hannah Carter, Xing Lee, Florin Oprescu, Elizabeth V. Cyarto, Claudia Meyer, Jeffrey Rowland	2019 - 2023	Medical Research Future Fund (MRFF) - Preven- tive and Public Health Research
LOCal Assessment and Triage Evaluation of NAFLD (LOCATE-NAFLD)	Adrian Barnett, James O'Beirne, Ingrid Hickman, Elizabeth Powell, Patricia Valery, Muhandiramalage Kularatna, David Brain	2019 - 2022	Medical Research Future Fund (MRFF) - Preventive and Public Health Research
Evaluation of the Geriatric Emergency Department Intervention (GEDI) Implementation	Elizabeth Marsden, Marianne Wallis, Andrea Taylor, Alison Craswell, <b>Adrian Barnett</b>	2017 - 2021	Emergency Medicine Foundation Ltd
The Limit of Detection in the Emergency Department (LEGEND) Trial: A Cluster Randomized Trial of a Clinical Decision Rule to Rule Out Acute Myocardial Infarction	Nathan Brown, Jaimi Greenslade, Louise Cullen, William Parsonage, Tracey Hawkins, Siegfried Perez, Nicholas Graves	2019 - 2021	Medical Research Future Fund (MRFF) - Rapid Applied Research Translation (RART)
The impact of ImpACT: Validation of an Accelerated Diagnostic Protocol for Aboriginal and Torres Strait Islander Patients Presenting to an Emergency Department with Suspected Acute Coronary Syndrome	Louise McCormack, Louise Cullen, William Parsonage, Raibhan Yadav, Luke Lawton, Sarah Ashover, Tanya Milburn, Laura Foran	2019 - 2021	Medical Research Future Fund (MRFF) - Rapid Ap- plied Research Translation (RART)
Increasing Capacity and Capability of GPs to Provide Hepatitis B Testing and Follow-Up Management for Chinese and Vietnamese Community Members	Amy Mullens, Erich Fein, <b>Margaret Durham</b> , Joseph Debattista, Zhihong Gu, Margaret Patricia Kay, Kirstie Daken	2019 - 2022	ASHM Sexual Health Research Fund
The Limit of Detection in the Emergency Department (LEGEND) Trial: A Stepped-Wedge Intervention Trial of a Clinical Decision Rule to Rule Out Acute Myocardial Infarction	Louise Cullen, Jaimi Greenslade, William Parsonage, Siegfried Perez, Francis Kinnear, Christian R. Hamilton-Craig, Niranjan Gaikwad, David Brain, Gavin Fincher, Allison Fifoot	2019 - 2021	Emergency Medicine Foundation Ltd
Towards Collaborative Management of People with Non-Alcoholic Fatty Liver Disease (NAFLD): Exploring a Pragmatic Approach to Risk Stratification Pathways for NAFLD Across the Care Continuum	Elizabeth Powell, Suzanne Williams, Laurence J. Britton, Carolyn McIvor, Kelly Hayward, Katharine M. Irvine, Steven McPhail	2019 - 2029	Metro South Hospital and Health Service (MSHHS)
NHMRC Practitioner Fellowship Top-Up	Anne Chang	2019 - 2022	Children's Health Foundation Queensland / Children's Hospital Foundation
Reducing disparities for Australian culturally and Linguistically Diverse Overseas-Born People in Relation to Sexual Health and Blood-Borne Viruses: Queensland Sub-Study	Margaret Durham, Alison Reid, Amy Mullens, Bruce Maycock, Rebecca Guy, Graham Brown, Limin Mao, Robert Offord, Roanna Lobo, Joseph Debattista, Zhihong Gu	2019 - 2021	ASHM Sexual Health Research Fund

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	GRANT SCHEME NAME
CHD LIFE+ Family-Centred Care Models Supporting Long-Term Neurodevelopment	Steven McPhail, Robert Justo, William Parsonage, Adrian Barnett, Muhandiramalage Kularatna, Bridget Abell, Nicole White, Benjamin Auld, Karen J. Eagleson, Nelson Alphonso, Kerri-Lynn Webb, Andrew Kelly, Samudragupta Bora, Michael Cheung, Julia Gunn-Charlton, Gary F. Sholler, Nadine Kasparian, Holly Williams, Stephen Shipton	2020 - 2025	Medical Research Future Fund (MRFF) - Cardiovas- cular Health Mission
Using Patient-Reported Outcome Measures for Children with Skin Conditions: A Pilot Randomised Effectiveness-Implementation Study	Zephanie Tyack, Tania Zappala, Steven McPhail, Megan Simons, Roy M. Kimble	2019 - 2021	Children's Health Foundation Queensland /Children's Hospital Foundation
Implementation of a Statewide Paediatric Sepsis Quality Improvement Initiative	Luregn Schlapbach, Amanda Harley, Liz Crowe, Kate McEnery, Paula Lister, Andreas Schibler, <b>Muhandiramalage Kularatna</b>	2019 - 2021	Children's Health Foundation Queensland / Children's Hospital Foundation
Assertive Telephone Follow-Up of Paediatric Patients at Risk of Suicide Discharged from the Emergency Department: Developing and Testing a Methodology for a Randomised Controlled Trial	Megan Preece, Sharyn Bloomfield, Jacinta Hawgood, Kairi Kolves, Bridget Abell	2019 - 2021	Children's Health Foundation Queensland / Children's Hospital Foundation
Development of an Artificial Intelligence Screening System to Identify Patients Requiring a CT Scan following Distal Radius Factures	Ashish Wadhawan, Beat Schmutz, Jurgen Fripp, Kevin Tetsworth, Pierrick Bourgeat, <b>Michael Schuetz</b>	2020 - 2021	Metro North Hospital and Health Service (MNHHS)
Provide Risk Adjustment of Clinical Outcome Data	Adrian Barnett, Xing Lee, Nicole White, Steven McPhail, Megan Campbell	2019 - 2021	Metro North Hospital and Health Service (MNHHS)
The Limit of Detection in the Emergency Department Trial: A stepped-Wedge Cluster Randomised Trial for Rapid Assessment of Patients with Suspected Acute Coronary Syndrome in the Emergency Department	Jaimi Greenslade, Louise Cullen, William Parsonage, Derek Chew, Steven McPhail, Gemma A. Figtree, David Brain, Anthony Brazzale, Christian R. Hamilton-Craig, Francis Kinnear, Laura Foran, Niranjan Gaikwad, Richard Stone, Robert Bonnin, Siegfried Perez, Virginia Campbell	2020 - 2023	NHMRC Partnership Projects
Childhood Brain Cancer Survivorship and Palliative Care: Effects on Family Functioning (CASPER)	Natalie Bradford, Stuart Ekberg, <b>David Brain,</b> Patricia Yates, Timothy E. Hassall	2020 - 2025	Children's Health Foundation Queensland /Children's Hospital Foundation
A Telehealth Cancer-Related Fatigue Clinic Model for Cancer Survivors: A Pilot Randomised Controlled Trial (The TCRF Trial)	Rahul Ladwa, Raymond Chan, Elizabeth Pinkham, Bena Brown, Jodie Nixon, Patricia Yates, <b>Steven</b> <b>McPhail,</b> Lee Jones, Euan Walpole, Leanne Stone, Marty Doyle, Carmen Escalante, Jane Turner, Gemma Lock, Joanne Frances Aitken	2020 - 2024	Princess Alexandra Research Foundation (PA Research Foundation)

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	GRANT SCHEME NAME
Alcohol-Involved Presentations to Emergency: PILOT Prevalence Study at RBWH	Cate M. Cameron, Jacobus Ungerer, Gary Mitchell, Brett McWhinney, Kirsten Vallmuur, Jacelle Warren, Victoria McCreanor, Tegwen Howell, Clifford Pollard, Michael Schuetz	2020 - 2021	Jamieson Trauma Institute
Novel Diagnostic Tools for Management of Chronic Wet Cough in Children	Robyn Marsh, Jane Hill, <b>Anne Chang</b>	2020 - 2023	NHMRC Ideas Grants
Artificial intelligence-assisted medical consult portal for orthopaedic device-related infection	Michael Schuetz	2020 - 2021	Brisbane Diamantina Health Partners (BDHP) - Trauma, Critical Care and Recovery Seed Grant
Agreement for Professor and Chair of Trauma Surveillance and Data Analysis	Hilary Bambrick, <b>Kirsten Vallmuur</b>	2020 - 2023	Metro North Hospital and Health Service (MNHHS)
Statistical Modelling to Support Clinical Decision Making for Critically III COVID-19 Patients	Nicole White, John Fraser, Michael Hornby	2020 - 2021	Advance Queensland - Industry Research Fellowships - MCF
Measuring National Productivity Impacts of Chronic III Health on Patients and Carers and the Potential Benefits of Health and Policy	Deborah Schofield, Robert Tanton, Rupendra Shrestha, Simon Kelly, <b>Hannah Carter</b> , Jinjing Li	2020 - 2024	NHMRC Ideas Grants
Evaluation and Grant Support of the Children's Hospital Foundation 'Health Services Research Funding Allocation'	Megan Campbell, William Parsonage	2020 - 2021	Children's Health Foundation Queensland /Children's Hospital Foundation
Embracing Digital Disruption Using Intelligent Decision Support for More Responsive Care, Better Patient Outcomes and Greater Efficiency	Steven McPhail, Amina Tariq, Nicole White, Muhandiramalage Kularatna, Hannah Carter, Carly Dyer, Bridget Abell	2020 - 2023	Digital Health CRC
Mental Health in the Bowen Basin Project	Steven McPhail, Bridget Abell	2020 - 2021	Wesley Medical Research
Evaluating a New Model of Care to Improve Health Service Responsiveness to Domestic and Family Violence	Angela Tonge, Steven McPhail, Catherine Walsh, Sue Cummings, Julie Watson, Brett Baxter, Mark Gooding, Tegwen Howell, Nicole White, Carly Dyer, Carla Shield	2020 - 2023	Queensland Health - Health Practitioner Research Scheme
Optimising Q fever vaccination in Australia: Protecting our rural adolescents	Nicholas Wood, <b>Kerry-Ann O'Grady</b> , David Durrheim, Stephen E. Graves, Peter Massey, Penelope Hutchison, Kristine Macartney, Heather Gidding	2020 - 2023	Medical Research Future Fund (MRFF) - Clinical Trials Activity

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	GRANT SCHEME NAME
Refugee health: Policy development support, Mater Hospital	Megan Campbell, Robin Blythe	2020 - 2021	Mater Hospital
Evaluation of DVA Treatment Cycle Initiative	Kerri-Ann Woodbury, Vivienne Tippett, Renata Meuter, Amina Tariq, Steven McPhail, Muhandiramalage Kularatna	2020 - 2021	Department of Veterans' Affairs (DVA)(AUS)
HIBISCUS: Head and neck lymphoedema: Intervention and observation in a randomised controlled study	Amanda Pigott, Jodie Nixon, Bena Cartmill, Sandro V. Porceddu, Andrew McCann, Megan Trevethan, Kelli Hancock, Rachael Pitt, Renee Cook, Jenni Boxall, Lauren Mahoney, Adele Coleman, Ben Panizza, Steven McPhail, Nicole White	2020 - 2024	Princess Alexandra Research Foundation (PA Research Foundation)
Developing evidence to support cost effectiveness and alternative finance models for selected Interventional Neuroradiology procedures	Muhandiramalage Kularatna, Hannah Carter, David Brain, Steven McPhail, Sameera Jayan Senanayake, Megan Campbell, Carla Shield	2020 - 2021	Metro North Hospital and Health Service (MNHHS)
Evaluation of HealthPathways South Australia - Phase Two Project	Muhandiramalage Kularatna, Steven McPhail, Bridget Abell	2020 - 2021	Adelaide Primary Health Network (Adelaide PHN)
Medication-Related Problems in People with Chronic Liver Diseases	Kelly Hayward, Steven McPhail	2020 - 2022	Queensland Advancing Clinical Research Fellowships (CRF)
Improving the knowledge and utility of flexible bronchoscopy in children - Top-up scholarship	Anne Chang, Rahul Thomas	2020 - 2023	Children's Hospital Foundation Scholarship
Making Football Safe for Women: Implementing an Injury Prevention Program	Kay Crossley, Christian Barton, Natasha Lannin, Ilana Ackerman, <b>Steven McPhail,</b> Michelle Dowsey, Martin Hagglund, Alex Donaldson, Karla Hemming, Michael Makdissi	2020 - 2024	NHMRC Partnership Projects
Road Trauma: Modelling the Patient Journey from Pre-hospital Triage to Outcome Using Process Mining	Moe Wynn, Arthur ter Hofstede, Robert Andrews, <b>Kirsten Vallmuur,</b> <b>Michael Schuetz</b>	2020 - 2023	Motor Accident Insurance Commission (MAIC)
An Economic Evaluation of the Costs and Consequences of a Clinical Practice Change in Radiation Oncology	Hannah Carter	2020 - 2021	Townsville Hospital and Health Service

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	GRANT SCHEME NAME
Health System Improvement and Sustainability Initiative	David Bunker, <b>Steven McPhail</b>	2020 - 2021	Brisbane Diamantina Health Partners (BDHP) - MRFF Funding
Nanoscale manufacturing platform to combat pandemics like COVID-19	Michael Schuetz, Prasad Yarlagadda, Kirsten Spann, YuanTong Gu, Asha Mathew, Dietmar Hutmacher	2020 - 2022	Australia-India Strategic Research Fund (AISRF)
Statistical Support with The Prince Charles Hospital Foundation	Megan Campbell, Rex Parsons	2020 - 2021	Prince Charles Hospital (TPCH) Foundation
Partnering for high value prosthesis selection and better patient outcomes	Steven McPhail, Muhandiramalage Kularatna, David Brain, Sameera Jayan Senanayake, Ruth Tulleners	2020 - 2021	Medibank Private Limited
ARC Training Centre in Additive Biomanufacturing	Dietmar Hutmacher, Travis Klein, Yin Xiao, Prasad Yarlagadda, Maria Woodruff, <b>Michael Schuetz</b> , Fiona McDonald, Stephen Pahoff, Naomi Paxton, Weidong Gao, Antonia Margarethe Horst, Onur Bas	2017 - 2021	ARC Industrial Transformation Training Centres
ARC Industrial Transformation Training Centre for Joint Biomechanics	YuanTong Gu, Peter Pivonka, Graham Kerr, You-Gan Wang, Michael Milford, Travis Klein, Cameron Brown, Ashish Gupta, Devakara Epari, Yin Xiao, Emilie Sauret, <b>Steven McPhail</b> , Neha Gandhi	2020 - 2024	ARC Industrial Transformation Training Centres
Improving Outcomes of Children and Young Adults with Primary Ciliary Dyskinesia: A Multi- Centre, Double-Blind, Double-Dummy, 2x2 Factorial, Randomised Controlled Trial (RCT)	Gabrielle McCallum, <b>Anne Chang</b> , Philip Robinson, Lucy Morgan, Keith Grimwood, Emma Duncan, Yuejen Zhao, Mark D. Chatfield, Paul Leo, Andre Schultz	2019 - 2024	Medical Research Future Fund (MRFF) - Clinical Trials Activity
Translating Evidence-Based Interventions into Population-Level Digital Models of Care for Child and Adolescent Mental Health	David Kavanagh, <b>Muhandiramalage Kularatna</b> , Jennifer Connolly, Melanie White, Oksana Zelenko	2019 - 2024	Medical Research Future Fund (MRFF) - Million Minds Mental Health Research Mission
Improving the Knowledge and Utility of Flexible Bronchoscopy (FB) in Children	Anne Chang, Rahul Thomas	2020 - 2025	NHMRC - National Health & Medical Research Scholarship
General statistical services to MNHHS	Susanna Cramb	2020 - 2022	Metro North Hospital and Health Service
Train the Trainer with Adelaide Research and Innovation - Johanna Briggs Institute	Anne Chang, Mary-Anne Ramis	2015 - 2021	University of Adelaide - Adelaide Research and Innovation

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	GRANT SCHEME NAME
Reducing Emergency Department Demand Through Expanded Primary Healthcare Practice	Gerard Fitzgerald, Douglas Morel, Chee Lim, Anthony Bell, Peter Atiken, Colin Myers, Kevin Chu, Francis Kinnear	2016 - 2021	Queensland Emergency Medicine Research Foundation (QEMRF)
Meta-research: Using research to increase the value of health and medical research	Adrian Barnett	2017 - 2021	NHMRC Research Fellowships
A multi-centre double-blind RCT on community-acquired pneumonia in Indigenous children and a developing country: Improving clinical outcomes and identifying systemic biomarkers	Anne Chang, Tsin Yeo, John W. Upham, Keith Grimwood, Mong Ooi, Moy Fong	2016 - 2022	NHMRC Project Grants
DH CRC Project 0085 Using decision support for more responsive care, better patient outcomes and greater efficiency	Steven McPhail, Melissa T. Baysari, Richard Taggart, Mitch Burger, Malcolm Pradhan, Mark Simpson, Thomas Glanville, Amina Tariq, David Brain, Reece Hinchcliff, Nicole White, Muhandiramalage Kularatna, Bridget Abell	2020 - 2025	Digital Health Cooperative Research Centre Ltd
Antibacterial Impact Assessment of Nanopillar Surfaces on Titanium Implants	Prasad Yarlagadda, Hongxia Wang, Michael Schuetz, Indira Prasadam	2018 - 2021	ARC Discovery Projects
The Incidence and Predictors of Foot Disease Hospitalisation	Peter Lazzarini	2018 - 2022	NHMRC Early Career Fellowships - Salary
Minimally invasive approach to manage early childhood caries in Aboriginal preschoolers	Peter Arrow, Rob McPhee, David Atkinson, Tamara Mackean, <b>Muhandiramalage Kularatna,</b> Utsana Tonmukayakul, David Palmer, Soniya Nanda-Paul, Susan Cartwright	2017 - 2021	NHMRC Project Grants
InterACT Trial: Reducing Non-Beneficial Treatment at the End-of-Life	Adrian Barnett, Kenneth M. Hillman, Lindy Willmott, Benjamin White, Gillian Harvey, Leonie Callaway, Magnolia Cardona-Morell, Nicholas Graves, Xing Lee, Steven McPhail, Will Cairns, Leanne Hides, Jeffrey Lipman	2018 - 2023	NHMRC Partnership Projects
Prophylactic Antibiotics to Prevent Recurrent Lower Respiratory Tract Infections in Children with Neurological Impairment (PARROT) Study	Dinah Reddihough, <b>Anne Chang,</b> Katrina Williams, Gabrielle McCallum, Kim McLennan, Ian Masters, Paul Mcnamara, Adrienne Harvey	2019 - 2024	NHMRC- National Institute for Health Research (UK) Collaborative Research Grants
Preventing Early-Onset Pneumonia in Indigenous Infants Through Maternal Immunisation: A Multi-Centre Randomised Controlled Trial	Anne Chang, Michael J. Binks, Kerry-Ann O'Grady, Helen Marshall, Maree Toombs, Heidi C. Smith-Vaughan, Susan Pizzutto, Paul J. Torzillo, Keith Grimwood, Geeta Swamy	2018 - 2023	NHMRC Project Grants
Queensland Bladder Cancer Initiative (QBCI)	lan Vela, Elizabeth Williams, Amina Tariq, Kenneth O'Byrne	2018 - 2021	Princess Alexandra Research Foundation (PA Research Foundation)

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	GRANT SCHEME NAME
Queensland Bladder Cancer Initiative (QBCI)	lan Vela, Elizabeth Williams, <b>Amina Tariq</b> , Kenneth O'Byrne	2018 - 2021	Princess Alexandra Research Foundation (PA Research Foundation)
MyFootCare: A Mobile App to Engage Patients with Diabetic Foot Ulcers in Self-Care	Bernd Ploderer, <b>Peter Lazzarini</b> , Damien Clark, Sieds Van Netten, Ross Brown, Jason Warnock	2018 - 2021	Prince Charles Hospital Foundation - Innovation Grants
Embracing Digital Disruption in Hospitals to Improve Outcomes Among Vulnerable People	Steven McPhail	2019 - 2022	NHMRC Career Development Fellowship (CDF) - Medical Research Future Fund (MRFF)
Short and Long-Term Effects of Therapeutic Exercise in Children with Bronchiectasis: A Multi-Centre Randomised Controlled Trial	Stewart Trost, <b>Kerry-Ann O'Grady, Ian Masters</b> , Christopher Drovandi, Vikas Goyal	2019 - 2023	NHMRC Project Grants
A three arm prospective randomised controlled trial comparing a biological dressing (Biobranecopyright) with Biobrane and ReCell and Standard Silver Dressings	Bronwyn Griffin, Roy Kimble, Zephanie Tyack, Anjana Bairagi	2018 - 2021	Avita Medical Ltd
Spirometry and Fractional Exhaled Nitric Oxide (FeNO) Reference Values for Indigenous Australians: Phase II - Adult Aboriginal and Torres Strait Islanders	Margaret McElrea, Kwun M. Fong, Anne Chang, Tamara Blake, Allan Takken	2018 - 2021	Prince Charles Hospital Foundation - Innovation Grants
An analysis of Queensland fatalities and serious injury crash characteristics and management by region using coroner's reports, and linked hospital and relevant data bases.	Angela Watson, Mary Sheehan, Kirsten Vallmuur, Victor Siskind	2018 - 2021	Motor Accident Insurance Commission (MAIC)
A Public-Private Partnership to Reduce Falls in Australian Hospitals	Meg Morris, Anne-Marie Hill, Terrence P. Haines, Ian Cameron, <b>Steven McPhail</b> , Debra Kiegaldie, Biswadev Mitra	2018 - 2021	NHMRC Partnership Projects
Patient-Reported Outcomes and Cost- Effectiveness of Innovations Within Queensland Maternity Services	Elizabeth Kate Martin, Scott Cameron Bell, Michael M Beckmann	2019 - 2022	Advance Queensland - Industry Research Fellowships - ECF
Dual-Centre Double Blind Randomised Controlled Trial (RCT) on the Utility of Personalised Bronchiectasis Action Management Plans (BAMP) for Children with Bronchiectasis	Julie Marchant, <b>Anne Chang</b> , I. Brent Masters, <b>Margaret McElrea</b> , Greta Busch	2019 - 2022	Children's Health Foundation Queensland / Children's Hospital Foundation
The Australian non-cystic fibrosis bronchiectasis registry	Anne Chang, Margaret McElrea, Greta Busch	2018 - 2021	Lung Foundation Australia

PROJECT TITLE	PROJECT INVESTIGATORS	PROJECT YEARS	GRANT SCHEME NAME
Trauma/Director and Chair of the Jamieson Trauma Institute and Support personnel with Metro North Hospital and Health Service.	Michael Schuetz	2018 - 2023	Metro North Hospital and Health Service (MNHHS)
A Motivational Interviewing Intervention to Improve Social and Emotional Well-Being Among Aboriginal Children	Lisa M. Jamieson, Yin Paradies, Rachel Roberts, Joanne Hedges, Kamilla Venner, Amanda Mitchell, Terry Dunbar, Cassandra Warren, <b>Muhandiramalage Kularatna</b> , Lisa Smithers	2019 - 2023	NHMRC Project Grants
Acceptability, Cost and Sustainability of the Implementation of an Interactive, Online Trauma-Informed Care Training Package with Health Professionals Treating Patients with Burns	Megan Simons, Alexandra C. De Young, Steven McPhail, Justin Kenardy, Roy M. Kimble, Zephanie Tyack, Sonya Osborne, Muhandiramalage Kularatna	2018 - 2021	Children's Health Foundation Queensland / Children's Hospital Foundation
Improving Blood Culture Collections in ED - Bugs in Bottles Project	James Hughes, Julian Williams, Mercedes Ray, Melisa Dixon, Angela Hills, Jill Duncan, Jacquie L. Harper, Jaimi H. Greenslade	2019 - 2021	Emergency Medicine Foundation Ltd
A Protocol to Assess Chest Pain in the Emergency Department	Jaimi Greenslade, Louise Cullen	2019 - 2021	Advance Queensland - Industry Research Fellowships - MCF
SUPER Rehabilitation for Young People with Old Knees	Kay Crossley, Ewa Roos, Adam Culvenor, Christian Barton, <b>Steven</b> <b>McPhail</b> , Edwin Oei	2019 - 2024	NHMRC Project Grants

#### **Contact us**

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