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## Foreword

Welcome to our final newsletter for 2021. We are exceptionally proud of the Health Economics Unit team and all that we have achieved under challenging circumstances during another year of COVID19 lockdown, working solely from home. Our team has continued to make a significant impact on both policy and practice, with substantial research contributions nationally and internationally.

This year, we successfully launched our Melbourne Health Technology and Value Assessment Collaboration (M-VAC) to work across state and federal governments projects; another exiting opportunity for our team to directly input into policy decisions. The M-VAC group will support the evaluation of new pharmaceuticals for the Pharmaceutical Benefits Advisory Committee (PBAC). We are also continuing our efforts through the Methods and Implementation Support for Clinical and Health Research Hub (MISCH) to facilitate collaborations with other researchers and provide support in health economics and other methods.

In teaching news, we are excited to announce the launching of an online Graduate Certificate in Health Economics and Economics Evaluation, starting 2022. Our teaching efforts remain substantial with our team leading five subjects into the Masters' of Public Health, including a new Masters' level subject, the Economics of Ageing. Our researchers continued to supervise students with a full year Masters' research project in Health Economics. Please let us know if you or someone you know is interested in studying or researching with us.

We have seen strong publication and research growth the areas of paediatrics, genomics, infection, and chronic diseases, many featured in this newsletter. Thank you to all our collaborators and colleagues.

**We hope you enjoy reading the articles we have put together showcasing our activities.**

**We hope you have a restful festive season break,  
Professor Kim Dalziel  
and the Health Economics Unit.**



## In this issue

Research News

New Funding and Awards

Research Engagement

Staff and Student News

Selected Publications

### Contact:

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## Upcoming Health Economics Short Courses

The University of Melbourne is hosting its first two Health Economics short courses of 2022, which are designed to assist policymakers, clinicians, researchers, managers and others working in the health sector to understanding of health economic issues, and how these can aid decision making. Please click [here](#) for more course information.

### Introduction to cost-effectiveness analysis in health | 26<sup>th</sup> April 2022 | In-person

A one-day introductory course that provides participants with a better understanding of health priority setting and the application of cost-effectiveness analysis. This introductory course has no assumed knowledge. It represents a good foundation for other courses offered in the series.

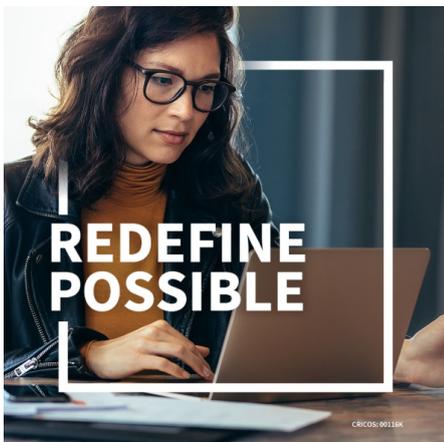
### Practical Methods for Health Economic Evaluation | 27-29 April 2022 | In-person

A three-day intensive computer-based course in methods for health economic evaluation. The course covers study design principles, techniques for analysing costs and outcomes and an introduction to decision models.

Significant discounts available for students, professionals from low- and middle-income countries, MSPGH staff, and alumni. Please [contact us](#).

## Featured News

### New for 2022! Graduate Certificate in Health Economics and Economic Evaluation



We are excited to be offering the world-class teaching we currently deliver within the Health Economics and Economic Evaluation specialisation of the Masters' in Public Health as a standalone Graduate Certificate from February 2022. Delivered part-time over 12 months online, this is a great opportunity for us to share our expertise across Australia.

The course is suitable for graduates from a range of disciplines and no prior background in economics is required. It is ideal for anyone considering a move into a career as a health economist, but also for practitioners and managers working in health care wishing to understand more about health care systems, finance, priority setting, Health Technology Assessment and economic modelling. We use a mixture of pre-recorded lectures, self-paced exercises and synchronous sessions with evening options. Find out more [here](#), or email [Dr Tessa Peasgood](#).

## Congratulations to Professor Kim Dalziel

The [Health Economics Unit](#) was delighted by the announcement that our Head, [Kim Dalziel](#), has been promoted to full professor! Professor Dalziel has led the team through recent years, which has helped our unit to grow, strengthen, and to develop the leadership potential of other team members. Her team have greatly appreciated the compassion and clarity of her leadership style, and this was reflected in a recent Faculty of Medicine, Dentistry and Health Sciences Award for Leadership Excellence. This award recognised Kim as an exceptional role model to her team, to students she supervises, to others in the University, and to her discipline through the range of activities and roles she has taken on. The award acknowledged her active promotion of our Faculty values, including integrity and accountability, respect for all, collaboration and teamwork, and compassion, especially demonstrated through her leadership during the current COVID-19 pandemic. Congratulations to Professor Kim Dalziel!



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## Research News

### Cost-Effectiveness of Nasal High Flow Versus CPAP for Newborn Infants in Special-Care Nurseries



A recent [economic evaluation](#) published in *Pediatrics* led by [Dr Li Huang](#) and [Prof. Kim Dalziel](#) has compared two common treatments for newborns with respiratory distress.

Newborn respiratory distress syndrome was the No.1 most costly in-hospital paediatric condition. This economic evaluation was conducted alongside a randomized control trial in 9 Australian special care nurseries and showed that nasal continuous positive airway pressure (CPAP) is more effective and on average cheaper as sole primary support. However, nasal High Flow (nHF) with back-up CPAP produced equivalent cost and effectiveness results. Thus, non-

tertiary special care nurseries choosing to use only 1 of the modes should choose CPAP. In units where both modes are available, using nHF as first-line therapy may be acceptable if there is back-up CPAP. [Read More.](#)

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### Cost-effectiveness of professional-mode flash glucose monitoring in adults with T2DM in general practice

A [recent article](#) led by [Dr Xinyang Hua](#), [Professor Philip Clarke](#) and [Professor Kim Dalziel](#) at Health Economics Unit has been published in *Diabetic Medicine*. This study assesses the cost-effectiveness of professional-mode flash glucose monitoring in adults with type 2 diabetes in general practice compared with usual clinical care based on the [GP-OSMOTIC trial](#). The UKPDS-OM2 model was used to simulate post-trial lifetime costs, life expectancy and quality-adjusted life years.



The study found that professional-mode flash glucose monitoring for the management of type 2 diabetes in general practice is not cost-effective if monitoring occurs every 3 months. It can be cost-effective with a lower monitoring frequency and sensor price. The results provide evidence for routine provision of professional-mode flash glucose monitoring in general practice settings. [Read More.](#)

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### Excess cost of care associated with sepsis in cancer patients: Results from a population-based case-control matched cohort

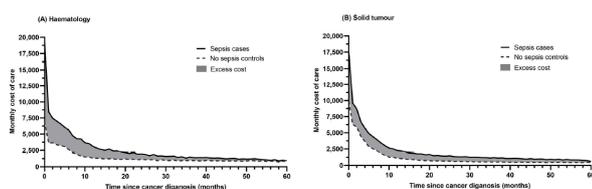


Fig 1. Mean monthly cost of care by malignancy type. (A) Haematology. (B) Solid tumour. The shaded area represents excess cost associated with sepsis, solid line represents mean monthly cost of care among sepsis (cases) and dotted line for no sepsis (controls).

<https://doi.org/10.1371/journal.pone.0255107.g001>

A new research article led by [Dr Michelle Tew](#) quantifying the [excess cost of care associated with sepsis in cancer patients](#) was published in *PLOS One*. This research was conducted in collaboration with [Professor Kim Dalziel](#) and [Professor Philip Clarke](#) from the Health Economics Unit, Professor Karin Thursky from Peter MacCallum Cancer Centre and collaborators from Toronto (Professors Murray Krahn, Lusine Abrahamyan and Andrew Morris).

The study used patient-level administrative data from more than 75,000 cancer patients in Ontario, Canada, to estimate the whole of system healthcare cost of cancer patients with and without sepsis. A key takeaway is that sepsis is common in patients with cancer, and it is a high cost, high mortality condition imposing substantial burden on the healthcare system as well as on the patients. The cost of care of cancer patients who developed sepsis is substantial—up to 90% higher compared to patients without sepsis. This translated into an excess cost associated with sepsis of CAN\$29,081 in the first year, rising to CAN \$60,714 over 5 years for solid malignancies. The result was higher for haematology; CAN \$46,154 in the first year, increasing to CAN \$75,931 after 5 years. The highest cost was incurred in the first year of cancer diagnosis which reflects the intensive treatments required, and the period where patients are at increased risk of developing sepsis. [Read More.](#)

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## Cost-effectiveness of home-based care of febrile neutropenia in children with cancer



A recent [article](#) by [Dr Michelle Tew](#) and [Professor Kim Dalziel](#) from the Health Economics Unit and colleagues at the Royal Children's Hospital, Murdoch Children's Research Institute, University of Technology Sydney and Peter MacCallum Cancer Centre was published in *Pediatric Blood & Cancer*.

The study evaluated the cost, benefits and cost-effectiveness of implementing a novel pathway of care involving home-based care of febrile neutropenia (FN) in children with cancer compared to inn-hospital FN care. The study showed that the program is cost-effective from both the health care and societal perspectives. Although managing children at home increased the duration of care, this model of care substantially reduced in-hospital length of stay translating to significantly lower health care costs of both low-risk and high-risk groups, as compared to standard inpatient care. [Read More.](#)

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## Economic impact of comorbid conditions in patients with rheumatoid arthritis

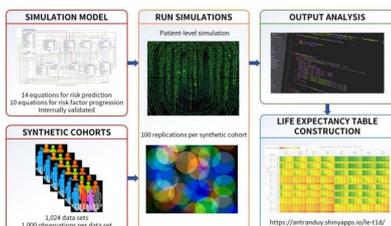
A [recent study](#) by [Mr Martin Vu](#), [Dr Natalie Carvalho](#), [Professor Philip Clarke](#) and [Dr An Duy Tran](#) from the Health Economics Unit has been published in *The Journal of Rheumatology*. This study was featured in [Editor's Pick](#) as one of the most relevant articles to clinical rheumatologists.

The study used Medical Expenditure Panel Survey data (MEPS) to evaluate the direct and indirect costs of more than a dozen comorbidities in a nationally representative US population with rheumatoid arthritis (RA) over a 10-year period. The results showed that the most prevalent chronic comorbid conditions were hypertension, followed by lipid metabolism disorders, diabetes, and depression. Comorbid conditions in patients with RA were associated with higher annual healthcare expenditure, lower likelihood of employment, higher rates of absenteeism, and lower income. [Read more.](#)



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## A risk factor-based life expectancy for patients with type 1 diabetes



A [recent study](#) by [Dr An Duy Tran](#), Dr Josh Knight and [Professor Philip Clarke](#) from the Health Economics Unit has been published in *Diabetologia*. This study was featured in the [Editor's Choice](#) as an outstanding article in diabetes.

In this study, a world's first risk factor-based life expectancy table for patients with type 1 diabetes was developed based on a previously published [simulation model](#). The table contains 1,204 cells representing combined levels of six risk factors (sex, age, current smoking status, BMI, eGFR, and HbA1c). The study shows a substantial variation in life expectancy across patients with different risk factor levels. For

example, the life expectancy of 20-year-old men varied from 29.3 years to 50.6 years, constituting a gap of 21.3 years between those with worst and best risk factor levels. A web-based interactive version of this life expectancy table, developed by [Dr An Duy Tran](#), is available [here](#). [Read More.](#)

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## How are child-specific utility instruments used in decision-making in Australia?

The [QUOKKA](#) team was delighted to publish one of our first QUOKKA manuscripts, on the use of child-specific utilities in decision-making in Australia. Published in *PharmacoEconomics*, this [paper](#) was authored by [Dr Cate Bailey](#), [Prof Kim Dalziel](#) and [Prof Nancy Devlin](#) from [Health Economics Unit](#) with colleagues Paula Cronin and Rosalie Viney (senior author) from the University of Technology Sydney. Despite the growing literature on economic analysis in paediatric populations, we found that the use of child-specific HRQOL measures in submissions to the PBAC was minimal. The submissions had inconsistent approaches, often used adult measures and weights, and there were substantial gaps in evidence. The consistent use of child-specific measures to improve the evidence-base for decisions about medicines for children in Australia was recommended. [Read More.](#)



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## The Value of Genomic Testing: A Contingent Valuation Across Six Child- and Adult-Onset Genetic Conditions



A recent [paper](#) by [Dr Yan Meng](#), [A/Prof Ilias Goranitis](#) and [Prof Philip Clarke](#) was published in *PharmacoEconomics*. This paper elicited the willingness-to-pay for genomic testing, using contingent valuation, among people with lived experience of genetic conditions in Australia.

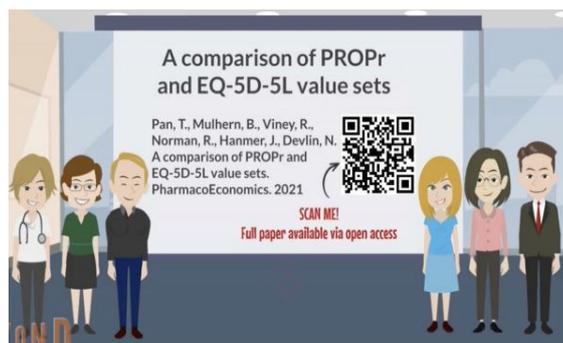
The paper used primary data from 360 individuals in six different clinical cohorts prospectively recruited to undergo genomic testing, funded through the Australian Genomics and Melbourne Genomics programs. The authors estimated that parents of children with mitochondrial disorders, epileptic encephalopathy, leukodystrophy, or malformations of cortical development genetic conditions would be willing to pay AU\$2830 for genomic testing, whereas adults or parents of children with lived experiences of genetic kidney disease or complex neurological and neurodegenerative conditions would be willing to pay AU\$1914 for the test. The average WTP across the six cohorts ranged from AU\$1879 (genetic kidney disease) to AU\$4554 (leukodystrophy). This work provided new insights into the value of genomic testing, enabling the use of cost-benefit analysis in these clinical contexts, while advancing the contingent valuation methods. [Read More.](#)

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## Comparing EQ-5D-5L and PROPr value sets

A new [study](#) on comparing EQ-5D-5L and PROPr value set by [Professor Nancy Devlin](#) and [Dr Tianxin Pan](#) from the [Health Economics Unit](#) has been published in the *PharmacoEconomics*.

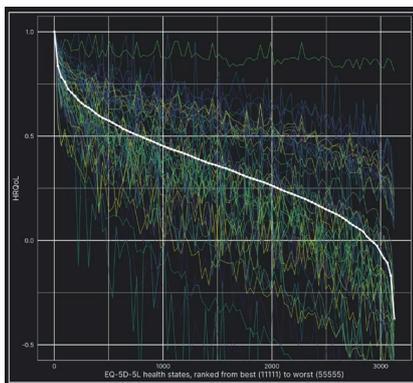
The EQ-5D-5L and its value sets are widely used internationally. In the US and elsewhere, there is growing use of PROMIS, which has a value set (PROPr) based on the stated preferences of the US population. In this paper, the authors compared the characteristics of EQ-5D-5L and PROPr values and found that they differ systematically. First, the US EQ-5D-5L utilities range from  $-0.573$  to  $1$ , whereas PROPr values for PROMIS-29 + 2 range from  $-0.022$  to  $0.954$ . Second, in the US EQ-5D-5L value sets, pain is the most important dimension whereas in PROPr pain is one of the least important (apart from sleep disturbance). Third, classified based on severity across EQ-5D-5L descriptive systems and PROMIS-29 + 2 domain scores, PROPr has substantially lower values than EQ-5D-5L values for comparable 'mild' health states, but higher values for more 'severe' health states.



The paper is available via [open access](#). The study has made an animated 6-min video to give an overview of the paper, which is available [here](#). [Read More.](#)

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## A New Online Tool for Valuing Health States: Eliciting Personal Utility Functions for the EQ-5D-5L

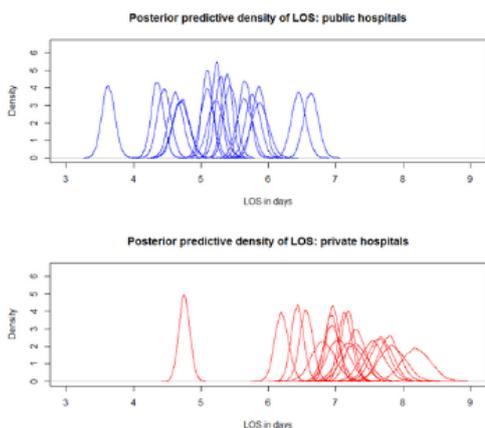


The online personal utility functions (OPUF) tool being developed at the University of Sheffield was presented at ISPOR Europe 2020 by Paul Schneider and led by [Professor Nancy Devlin](#). The work builds on the personal utility functions methods proposed in [Devlin et al \(2018\)](#). Data collected in the UK using OPUF to value the EQ-5D-5L demonstrated the strength of the approach in exploring the variations in preferences that underpin 'average' preferences in value sets. The tool can be used to value any measure of HRQoL. [Read More.](#)

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## A panel data model of length of stay in hospitals for hip replacements



An [article](#) led by [Dr Yan Meng](#) and collaborators from Monash University was published in *Econometric Reviews*.

Inequality between private and public patients in Australia has been an ongoing concern due to its two-tiered insurance system. This article investigated the variations in hospital length of stay for hip replacements using the Victorian Admitted Episodes Dataset from 2003/2004 to 2014/2015, employing a Bayesian hierarchical random coefficients model with trend. The authors found systematic differences in the length of stay between public and private hospitals, after observable patient complexity is controlled. This suggested shorter stays in public hospitals due to pressure from the Activity-based funding scheme, and longer stays in private system due to potential moral hazard. The counterfactual analysis showed that public patients stay 1.8 days shorter than private patients in 2014, which lead to the “quicker but sicker” concern that is commonly voiced by the

public. This study also identified widespread variations among individual hospitals. Sources for such variation warrant closer investigation by policy makers. [Read More.](#)

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### *New Funding and Awards*

## NHMRC Clinical Trials and Cohort Studies Grant Success: CRISPR point-of-care testing for congenital cytomegalovirus

[Dr Xinyang Hua](#) and [Professor Kim Dalziel](#) at [Health Economics Unit](#) are part of team successful in an NHMRC Clinical Trials and Cohort Studies Grant (2021-2025, \$2 million). The project is led by [A/Prof Valerie Sung](#) (CIA) from the Murdoch Children’s Research Institute. The project will focus on whole-of-population CRISPR point-of-care testing for congenital cytomegalovirus (cCMV) to prevent newborn hearing and neurodevelopment disabilities through a public health approach. Dr Hua and Professor Dalziel will lead the economic evaluation alongside the trial, including costing different state-wide cCMV screening strategies with point-of-care CRISPR testing, and conducting decision analytic modelling to evaluate the cost-effectiveness of the screening strategies. [Read More.](#)



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## Staff from the Health Economics Unit recognised at the 2021 MSPGH Annual Awards

The MSPGH Annual Awards Presentation Ceremony was held on Wednesday December 14 2021 and staff from the Health Economics Unit were recognised in a range of categories.

[Dr Tessa Peasgood](#) – 2021 Teaching Achievement (Open) Award

[Dr Michelle Tew](#) – 2021 Research Achievement Award Rising Star

[A/Prof Ilias Goranitis](#) – 2021 Leadership Award Mid-Career Academics

[Dr Jemimah Ride](#) – 2021 Leadership Award Mid-Career Academics

[Dr Natalie Carvalho](#) – 2021 Best Paper and Policy Research Awards

[Dr Tianxin Pan](#) – 2021 Engagement Open Award (with Prof Ajay Mahal from Nossal Institute for Global Health)

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## NHMRC Investigator Grant Success - Dr Xinyang Hua



[Dr Xinyang Hua](#) at [Health Economics Unit](#) has been awarded an NHMRC Investigator Grant in the category of Emerging Leadership 1 (2022-2026, \$ 650,740). The project will focus on strengthening the role of health economics in perinatal health to inform priority setting and funding decisions. Dr Hua will work closely with collaborators from Murdoch Children’s Research Institute and Royal Women Hospital to improve methods around capturing cost, quality of life and longer-term outcomes for children born prematurely and investigate cost-effective health services and interventions to be applied in perinatal and neonatal period. [Read More.](#)

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## Investigating the feasibility, acceptability and validity of the EQ-HWB to measure the quality of life of carers of children experiencing adversity



[Dr Cate Bailey](#), together with [Professor Kim Dalziel](#), [Professor Nancy Devlin](#), [Dr Tessa Peasgood](#) from the [Health Economics Unit](#), and in collaboration with colleagues from MCRI and Monash University have been awarded an EuroQoL grant to examine the feasibility, acceptability and validity of the EuroQoL Health and Wellbeing measure (EQ-HWB) for use in a hard-to-reach population of carers of children experiencing adversity. The findings from this study will be used to inform the use of the EQ-HWB in caregivers of young children and advance the measure towards finalisation of the measure for general use to measure quality of life in social care populations. [Read More.](#)

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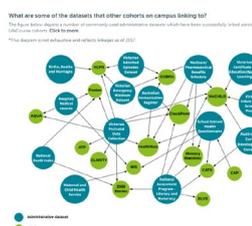
## EuroQoL grant success: Supporting the use of EQ-5D instruments in China

[Professor Nancy Devlin](#) and [Dr Tianxin Pan](#) from the [Health Economics Unit](#), in collaboration with Associate Professor Nan Luo (National University of Singapore) and colleagues from Nanjing Centre for Disease Control and Prevention, have been awarded an EuroQoL grant to investigate the effects of different interviewer-led data collection modes on EQ-5D data in China using a combination of qualitative and quantitative methods.

Studies have shown high ceiling effects in EQ-5D data collected from the Chinese general population (e.g., more than 80% for EQ-5D-3L and nearly 60% for EQ-5D-5L), potentially undermining the credibility and usefulness of the instruments. In China, large-scale population surveys typically use face-to-face interviews to administer lengthy survey forms, which might impact on EQ-5D data collected. This project aims to understand the effect of interviewer-led mode on EQ-5D data collected in large-scale population surveys, and compare EQ-5D-3L and EQ-5D-5L in population health surveys in China. [Read More.](#)

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## Murdoch Children's Research Institute LifeCourse grant



[Dr Cate Bailey](#), together with [Professor Kim Dalziel](#) and in collaboration with colleagues from MCRI have been awarded LIFECOURSE – Population Health Theme funding from the Murdoch Children's Research Institute (MCRI) to map Patient Reported Outcomes Measures (PROMs) for use in future health economics projects in LifeCourse Data Repository. Outcomes from this study will be a report on the potential use of this information, and the development of datasets of PROMs for future health economics studies.

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## A World Health Organization project to understand economic cost of COVID-19 on healthcare services in Malaysia



Alongside fellow Chief Investigators of the NHMRC SPECTRUM Centre of Research Excellence, [Dr Natalie Carvalho](#) from [Health Economics Unit](#) (HEU) and HEU honorary research fellow [Dr Angela Devine](#) successfully led a technical support project funded by the World Health Organization, in collaboration with the Malaysian Health Technology Assessment Section (MaHTAS). The team developed an economic burden model using Ministry of Health COVID-19 data together with an existing COVID-19 transmission dynamic model to provide supplementary data-driven considerations to assist financial planning of healthcare services. The model considered the direct medical cost of COVID-19 to Malaysia's public healthcare system, and the burden of disease and productivity losses associated with COVID-19 from 2020 to the end of October 2021. Findings were disseminated in the form of a technical report detailing the economic burden of COVID-19 on healthcare services in Malaysia to key stakeholders in the Malaysian Ministry of Health. [Read More.](#)

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## Research Engagement

### Health Economics Unit researchers present at the Australian Health Economics Society Conference 2021



Researchers from the [Health Economics Unit](#) (HEU) were out in force at the annual conference of the Australian Health Economics Society (AHES) held online in September 2021. HEU PhD student Xiuqin Xiong was the lead organiser for the Australian Health Economics Doctoral student forum which was a conference highlight. Nine presentations were given across the conference program from HEU researchers. Topics ranged from incentivisation of vaccine uptake and priority setting, a behavioural economic model of gambling, evaluation of the value of continuous glucose monitoring for type 2 diabetes, and methods research in health-related quality of life measurement and valuation including its use in Australian decision making. Thank you to the conference organisers on a wonderful 2021 AHES conference and well done HEU researchers!

The following are some key highlights from HEU presentations (and presenter):

→ **Developing an adapted version of EQ-5D-Y for use in children aged 2- 4 years using focus groups.** ([Kim Dalziel](#))

Professor Dalziel presented recent work on establishing whether the EQ-5D-Y can be used for children 2-4 years. Co-design with parents to determine a suitable adaptation for testing was used to produce an adapted EQ-5D-Y version that is currently being evaluated for acceptability, reliability and validity.

→ **Child-Specific Utility Instruments and Decision-Making in Australia: A Review of Public Summary Documents from the Pharmaceutical Benefits Advisory Committee (PBAC).** ([Cate Bailey](#))

Dr Bailey presented work from a recently published *PharmacoEconomics* paper on the use of child-specific utility instruments by the PBAC. Through a systematic search of the PBAC public summary documents, only four documents were found that included child-specific HRQoL measures. We concluded that using child-specific measures would reduce uncertainty in decision making.

→ **An Australian multi-instrument comparison study protocol for measurement of paediatric health-related quality of life.** (Renee Jones)

Renee Jones presented the new Paediatric Multi Instrument Comparison (P-MIC) study which aims to compare the validity and reliability of paediatric HRQoL instruments. The P-MIC will collect survey data on approximately 6,200 Australian children aged 2-18 years via The Royal Children's Hospital in Melbourne, Australia and online Australian survey panels. Further information available [here](#).

→ **Attitudes of the public in 14 countries to lottery allocation of a COVID-19 vaccine: A controlled experiment from the CANDOUR study** ([Philip Clarke](#))

Professor Clarke presented an overview of the CANDOUR study, a global internet-based survey involving around 16,500 members of the public from 14 countries. Key findings on public preferences and attitudes on a range of issues relating to the global roll-out of COVID-19 vaccines were presented.

→ **Cost-effectiveness of professional mode flash glucose monitoring in general practice among adults with type 2 diabetes: evidence from the GP-OSMOTIC trial** ([Xinyang Hua](#))

Dr Hua presented on cost-effectiveness of professional-mode flash glucose monitoring in adults with type 2 diabetes in general practice compared with usual clinical care, finding that professional-mode flash glucose

monitoring is not cost-effective if monitoring occurs every 3 months. It can be cost-effective with a lower monitoring frequency and sensor price.

→ **Systematic review of published economic evaluations in very young children: implications for decision making focusing on use of outcome measures and QALYs (Natalie Carvalho)**

In this systematic review of published economic evaluations targeting children aged  $\leq 24$  months of age, 10 of the 28 included studies were cost-effectiveness analyses, 14 cost-utility analyses reporting QALYs and 4 cost-utility analyses reported DALYs. Key concerns discussed related to methods used to value health states including describing and justifying methods used to elicit preferences.

→ **Test-retest reliability of 'best' and 'worst' scaling choices for the EQ5D-Y: comparison of adolescent and adult preferences (Xiuqin Xiong)**

Xiuqin presented her study which aimed to investigate the test-retest reliability of best-worst scaling (BWS) to elicit adolescent preferences compared with adults. The results indicated that adolescents were able to self-report preferences for EQ-5D-Y health states with a level of reliability equivalent to adults.

→ **A Behavioural Economic Model of Gambling: A Two Process Approach (Lachlan Cameron)**

Lachlan presented on a model that was motivated by empirical literature and intuitive assumptions, to improve on existing economic models through making a distinction between the likelihood of participating in gambling and of developing problem gambling. The model's predictions were empirically testable, consistent with existing literature, and added new insights to this area.

→ **A Systematic Review of the Effect of a One-Day Versus Seven-Day Recall Duration on Domains of the EQ-5D and EQ-HWB (Julia Caruana -MPH student)**

This targeted review explored the effect of a 1-day versus 7-day recall period of patient-reported outcome measures (PROMs) and health-related quality of life (HRQoL) instruments. Participants indicated a preference for 1-day recall for reporting symptoms, except where conditions were characterised by high symptom variability, or where PROMs concepts required integration of infrequent experiences over time.

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## Winners of High Impact Award for Original Research

Congratulations to [Dr An Duy Tran](#), Dr Josh Knight, [Dr Xinyang Hua](#) and [Prof Philip Clarke](#) at the Health Economic Unit of the Centre For Health Policy on their achievement with a 2021 High Impact Award (category Downloads) for their [Original Research](#) published in Heart, Lung and Circulation. The Award was judged along published guidelines and announced at the Cardiac Society of Australia and New Zealand's (CSANZ) Annual General Meeting on August 7, 2021. This Award is also listed on the Journal's [Article Prizes and Awards](#) section (for 2021).

[The article](#) describes a prediction model for classification of cardiovascular risk of remote Indigenous Australians, the first model of its kind. Dr An Duy Tran has also developed a risk calculator based on this model, which can be downloaded as an [Android app](#) as well as an [iOS app](#). [Read More.](#)

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## Professor Nancy Devlin appointed chair of the Board, EuroQol Research Foundation.



[Professor Nancy Devlin](#) has been elected to chair the Board of the EuroQol Research Foundation. The EuroQol Group is a European-based worldwide network of researchers which developed the EQ-5D set of questionnaires, which are used to measure patients' self-reported health. The EQ-5D is used in clinical trials, population health surveys and routine outcomes measurement and is the instrument most commonly recommended for use by [health technology appraisal](#) bodies internationally. The EuroQol Research Foundation is a not-for-profit organisation which serves the public interest by supporting, instigating and performing scientific research on measuring and valuing health, in keeping with its [vision and mission](#). Revenue from commercial licenses to use its questionnaires is used to support non-commercial users and to fund research. The Foundation has become a major research funder of research on health related quality of life, spending >6 euros million annually on R&D. [Read More.](#)

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## Professor Nancy Devlin presented at EuroQol Scientific Plenary Meeting 2021



A paper led by [Professor Nancy Devlin](#) was presented at the EuroQol Scientific Plenary Meeting 2021, one of just 10 selected for detailed discussion in this Plenary meeting. The paper highlighted important issues regarding the use of values for child HRQoL in health technology appraisal:

“Values for the EQ-5D-Y obtained from the current protocol are likely to be confounded by society’s attitudes toward children and in particular the importance of longevity. This complicates the ability of Health Technology Assessment (HTA) bodies to disentangle these factors in applying social value judgements about the priority to be accorded to child health care. The EQ-5D-Y values currently being produced have many ‘non-QALY’ uses -

but the estimates of QALY gains they produce are *not* comparable with those for adult value sets, and Incremental cost-effectiveness ratio (ICERs) based on EQ-5D-Y values cannot be compared with adult ICERs or with the cost effectiveness thresholds typically used in HTA. Effort is urgently needed to address this issue of non-comparability to support use of EQ-5D-Y in cost-effectiveness analysis (CEA)”. [Read More.](#)

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### More Research Engagement

#### Professor Nancy Devlin presented at ISPOR Europe 2021

[Professor Nancy Devlin](#) presented on “Should we develop a different approach for assessing value of prevention vs therapeutics?”, putting the case against developing special methods specific to assessing the value of vaccines. She argued that “Piecemeal approaches to value assessment for different aspects of health risks budget rigidity and persistent allocative inefficiency”, and concluded that “ensuring optimal societal investment in vaccines and prevention would be best served by coherent, expanded value frameworks which can be applied across prevention and therapeutic options, and that provide evidence to facilitate comparisons of the value of health care at a societal level, alongside the value of other public sector interventions.”

#### Report on an international HTA Roundtable on pediatric HRQoL.

NICE International and ISPOR jointly hosted an international HTA Roundtable on the challenges being confronted in assessing pediatric technologies. The Roundtable was organized and facilitated by [Professor Nancy Devlin](#), together with Rosie Lovett (NICE) and Donna Rowen (University of Sheffield), and was attended by 22 representatives from leading HTA bodies. The main message from attendees: very little evidence on child HRQoL is being submitted to HTA for paediatric technologies – and urgent action is needed to address gaps in evidence. A report on the workshop, and its key findings will be published in the December 2021 issue of [Value and Outcomes Spotlight](#).

#### Webinar presented by QUOKKA team members organised by the ISPOR Vic/Tas Student Chapter

[Dr Cate Bailey](#) along with [QUOKKA team](#) colleague Dr Christine Mpundu-Kaambwa presented at a webinar organised by the [ISPOR Victoria and Tasmania Student Chapter](#) on Measuring and Using Quality of Life From The Patient Perspective: Methods And Challenges For Decision-Making. Dr Bailey spoke on **the challenges of obtaining utility-based measures in the social care environment**, and Dr Mpundu-Kaambwa spoke on utility scores for children and adolescents and practical aspects of obtaining utility-based measures. The webinar attracted over 100 registrants.

#### Angela Devine selected to become a member of the Global Gender Equality in Health Leadership Committee

[Dr Angela Devine](#) was selected as a member of the Global Gender Equality in Health Leadership Committee for the recently formed Women in Global Health (WGH) Australia. The committee will work to further the objectives of women’s empowerment and gender transformative change in the health workforce on a global level and connect women leaders from the Indo-Pacific region with leaders in Australia through regional initiatives. More details can be found at <https://www.wghaustralia.org/global-health>.

#### Angela Devine’s visit to University of California, Irvine

[Dr Angela Devine](#) visited University of California, Irvin in November. While she was there, she gave a talk entitled ‘Economic analyses to inform policy change for vivax malaria management’ for the Masters of Public Health Practicum. She also met with A/Prof Daniel Parker, Prof Guiyun Yan, and Prof Bernadette Boden-Albala to discuss ongoing work and future collaborations.

#### Dr Natalie Carvalho moderates at a Health Economics seminar

[Dr Natalie Carvalho](#) organised and moderated a Health Economics seminar as part of the NHMRC Centre of Research Excellence (CRE) for Pneumococcal Disease Control in the Asia Pacific, 9 November 2021. More information [here](#)

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## Dr Angela Devine presented at the Malaria in Melbourne conference



[Dr Angela Devine](#) was a keynote speaker at the Malaria in Melbourne conference at the end of October. Her plenary was titled 'The evolving economic case for malaria control and elimination'. The talk discussed the economic consequences of malaria, the economic evaluation of options for malaria control, and the future challenges for malaria control and elimination. The talk ended with some tips on how to bring more concepts from health economics into laboratory and clinical research.

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## Staff and Student News

### Congratulations to Cate Bailey on her 2nd PhD completion



Congratulations to [Dr Cate Bailey](#) on graduating from her 2<sup>nd</sup> PhD, this time in Health Economics. Cate's thesis was titled "Cost-effective studies for the improvement of intergenerational health and wellbeing", supervised by Monash University staff Helen Skouteris, Zanfina Ademi and Helena Teede. Cate's thesis examined the cost-effectiveness of programs to improve intergenerational health and wellbeing across the life course, with an emphasis on economic evaluation in the social care sector. An extra thrill was attending an **in-person** graduation ceremony in December, where Melbourne University's [Professor Sharon Lewin](#) gave an inspiring graduation speech.



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### Congratulations to Dr Jemimah Ride

[Dr Jemimah Ride](#) has been promoted to the position of Level C Senior Research Fellow, commencing 1 September 2021. Jemimah's promotion recognizes her increasing research impact and contributions in the field of mental health and mental health care, including preferences for and distribution of care.



### Congratulations to Dr Angela Devine

We enjoyed the opportunity to celebrate the promotion of [Angela Devine](#) to Senior Research Fellow. Angela holds an honorary position at Health Economics Unit. She is also a health economist with Menzies School of Health Research. Angela leads a program of work evaluating interventions to reduce the burden of infectious diseases and is recognised as the international expert in the economic evaluation of treatment strategies for vivax malaria. She works closely with National Malaria Control Programmes to ensure that research findings have a direct impact on policy and has a growing range of projects that are building capacity in quantitative skills in Asia.



### Welcome to Paul Amores

Paul is a Research Fellow in the Health Economics Unit and also works within the Health Economics node of the MISCH Hub. Paul is completing a PhD in Economics at the Australian National University, and has a Bachelor of Economics (Hons) from the University of Sydney. His PhD focuses on the role of mental health as a pathway for intergenerational disadvantage. Prior to this, he was an economist with the Australian Department of Employment and Workplace Relations. He has expertise in applied microeconometrics, causal inference, panel data methods, and the analysis of large administrative databases.



## Welcome to Campbell McMullin

Campbell has joined the HEU as a Research Assistant. He is currently a first year Master of Public Health student specialising in Health Economics. Campbell graduated from Bachelor of Biomedicine in 2019. His work will include a project investigating the financial landscape for selected surgical procedures for Long Bone Fractures and Obstetric Fistula in African countries. He will also be involved in evaluating the use of COVID-19 Rapid Antigen Testing (RAT) in the construction industry a Pharmaceutical Benefits Advisory Committee (PBAC) project with [M-VAC](#) to assess new pharmaceutical for listing on the PBS.

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### Selected Publications in 2021

**Bailey, C., Dalziel, K., Cronin, P. Devlin, N., Viney, R.** (2021). [How are Child-Specific Utility Instruments Used in Decision Making in Australia? A Review of Pharmaceutical Benefits Advisory Committee Public Summary Documents.](#) *PharmacoEconomics* (2021). <https://doi.org/10.1007/s40273-021-01107-5>

Spittle, A.J., McKinnon, C., Huang, L., Burnett, A., Cameron, K., Doyle, L.W., Anderson, P., Baird, M., Colditz, P., Cruz, M., Pussell, K., **Dalziel, K.**, Eeles, A., Newnham, J., Hunt, R.W. and Cheong, J (2021). [Missing out on precious time: Extending paid parental leave for parents of babies admitted to neonatal intensive or special care units for prolonged periods.](#) *J Paediatr Child Health*. <https://doi.org/10.1111/jpc.15836>.

Hiscock Harriet, Pelly Rachel, **Hua Xinyang**, West Sue, Tucker Dianne, Raymundo Chin-Mae, **Dalziel Kim** (2021) [Survey of paediatric telehealth benefits from the caregiver perspective.](#) *Australian Health Review* , <https://doi.org/10.1071/AH21036>

Singh, S., Babl, F.E., Hearps, S.J., Hoch, J.S., **Dalziel, K.** and Cheek, J.A. (2021), [Trends of paediatric head injury and acute care costs in Australia.](#) *J Paediatr Child Health*. <https://doi.org/10.1111/jpc.15699>

**Jones, R.;** Mulhern, B.; McGregor, K.; Yip, S.; **O'Loughlin, R.;** **Devlin, N.;** Hiscock, H.; **Dalziel, K.;** on behalf of the Quality of Life in Kids: [Key Evidence to Strengthen Decisions in Australia Project Team. Psychometric Performance of HRQoL Measures: An Australian Paediatric Multi-Instrument Comparison Study Protocol \(P-MIC\).](#) *Children* 2021, 8, 714. <https://doi.org/10.3390/children8080714>

**Li Huang,** Brett J. Manley, Gaston R. B. Arnolda, Louise S. Owen, Ian M. R. Wright, Jann P. Foster, Peter G. Davis, Adam G. Buckmaster, **Kim M. Dalziel;** [Cost-Effectiveness of Nasal High Flow Versus CPAP for Newborn Infants in Special-Care Nurseries.](#) *Pediatrics* August 2021; 148 (2): e2020020438. [10.1542/peds.2020-020438](https://doi.org/10.1542/peds.2020-020438)

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Leslie, K., Chan, M. T., Darvall, J. N., De Silva, A. P., Braat, S., **Devlin, N. J.,** ... Story, D. A. (2021). [Sugammadex, neostigmine and postoperative pulmonary complications: an international randomised feasibility and pilot trial. PILOT AND FEASIBILITY STUDIES](#), 7(1), pp. 11-. doi:10.1186/s40814-021-00942-9

Teni, F. S., Rolfson, O., **Devlin, N.,** Parkin, D., Naucner, E. & Burstrom, K. (2021). [Variations in Patients' Overall Assessment of Their Health Across and Within Disease Groups Using the EQ-5D Questionnaire: Protocol for a Longitudinal Study in the Swedish National Quality Registers.](#) *JMIR RESEARCH PROTOCOLS*, 10(8), pp. 12-. doi:10.2196/27669

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## Get in touch



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