



AEA
Australasian
Epidemiological
Association

Annual Scientific Meeting 2023

How epidemiology can ensure healthy lives for all

Wednesday 18 to Friday 20 October 2023
Pullman Melbourne on the Park, VIC
#AEA2023 | www.aea2023.com

Major Sponsors

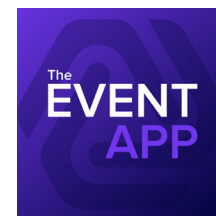


INSTITUTE FOR HEALTH
TRANSFORMATION



CONFERENCE APP

We are pleased to offer an Event APP that can be used during the Conference to view the agenda, and speakers as well as contact each other.



To download the app:

1/ go to the App Store on your phone by using the QR codes below or search '*The Event App by EventsAIR*'

2/ Type in the event code: **aea23**

3/ follow the prompts.

You can log into the app with your registration details to customise the app and make your own agenda.

If you have any questions or issues, please visit the Events Team @ Conference Registration desk.



WELCOME

Dear Colleagues,

On behalf of the Conference Organising Committee, we welcome you to the 2023 Annual Scientific Meeting of the Australasian Epidemiological Association, here in Melbourne, on the unceded lands of the Wurundjeri, Woi-wurrung, and Bunurong Boon Wurrung peoples.

Epidemiology is vital to the way we understand, prevent, and respond to disease and ill health. It is also fundamental to identifying and addressing health disparities. It is these elements that underpin the theme of this year's Australasian Epidemiological Association conference, "How epidemiology can ensure healthy lives for all".

We have assembled an exciting conference program, reflecting some of the most innovative and impactful epidemiology from Australasia, as well as from around the world. Our Keynote speakers bring a broad array of expertise and our program includes 20 concurrent sessions reflecting the breadth of epidemiological research and practice. In addition, the workshops available at the conference cover topics ranging from epidemiological methods and theory to their real-world applications. Taken together, this year's conference is a three-day gala of epidemiology, giving attendees a broad and comprehensive exposure that we hope will inspire, inform, and motivate their future work.

Just days prior to the start of our conference, Australia will vote on the referendum to decide whether to include an Aboriginal Voice to Parliament in the Australian constitution. The Voice seeks to ensure equal and equitable health for Australian Aboriginal Peoples. The AEA and its Conference Organising Committee strongly support the "Yes" vote in this referendum. It is our pleasure that Professor Marcia Langton, a leader in Aboriginal health research and key proponent of the Voice, has agreed to give this year's Ian Prior Oration. In addition, our closing Plenary discussion will discuss the role of epidemiology in promoting the health of Aboriginal Peoples.

Alongside the science and practice discussed at the conference, we hope this event serves as an opportunity to socialise and develop collaborations. We look forward to seeing you at the Welcome reception here at the Pullman Hotel on the evening of the 18th, and at the conference dinner at the MCG on the 19th. Also, please take the opportunity to see our great city!

Again, on behalf the Conference Organising Committee, we welcome you to the AEA Annual Scientific Meeting and hope you have a wonderful time!

Best wishes,

Professor Adrian Lowe & Dr Steve Simpson-Yap



A handwritten signature in black ink that reads "Adrian Lowe".

Professor Adrian Lowe
School of Population & Global Health
University of Melbourne



A handwritten signature in black ink that reads "Steve Simpson-Yap".

Dr Steve Simpson-Yap
Centre for Epidemiology and Biostatistics
School of Population & Global Health, University of Melbourne

Research to enhance health and wellbeing for all



Addressing today's most complex and compelling health challenges through excellence in collaborative research that transforms how we design and deliver prevention and care.

The Institute for Health Transformation (IHT) at Deakin University combines the expertise of more than 200 researchers in determinants of health, obesity prevention, health economics and quality and patient safety to address complex challenges facing our health systems. We aim to activate healthy populations and communities, innovate health service delivery and design, empower consumers as advocates for health system change, and drive equity and value in health and care.

Hear more from IHT speakers Professor Kathryn Backholer (Keynote), and Alfred Deakin Professor Catherine Bennett on our Healing Health podcast.

This informative podcast explores some of the biggest issues facing our health systems and the best ways to deliver care. Find us on your favourite podcast app.

To find out how you can join or partner with us visit:

iht.deakin.edu.au

Deakin University CRICOS Code: 00113B



INSTITUTE FOR HEALTH
TRANSFORMATION

CONFERENCE ORGANISATION

CONFERENCE ORGANISING COMMITTEE

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Dr Steve Simpson-Yap
Associate Professor Brett Toelle
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Dr Jianrong Zhang
Dr Brooklyn Fraser

ABSTRACT REVIEWERS

AEA would like to acknowledge and thank the abstract reviewers who volunteered their time for the conference:

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Eric Chow	Bronwyn Haasdyk	Ellie Medcalf	Aung Zaw Zaw Phy	Brett Toelle	Jingwen Zhang

ABOUT THE CONFERENCE

The AEA 2023 Annual Scientific Meeting will provide a platform for sharing evidence, ideas and findings in epidemiology, as well as making recommendations for the way forward. The three-day program has been designed to provide lively and productive discussions and contributions from professionals engaged in research, policy or practice under the following themes:

- Epidemiology to identify and reduce health disparities
- Epidemiology practice in resource limited settings
- Novel epidemiological methods
- Communicating & sharing epidemiology to maximise impact

GENERAL INFORMATION

REGISTRATION DESK

If you require help, please see the staff at the registration desk, or email us at events@phaa.net.au and we will do everything we can to assist you with your enquiry.

PULLMAN ON THE PARK MELBOURNE

Conference venue

A: 192 Wellington Parade, Melbourne
T: 03 9419 2000

ACCOMMODATION CONTACT DETAILS

Pullman Melbourne on the Park (conference venue)

A: 192 Wellington Parade, Melbourne
T: 03 9419 2000

Quest Hotel

A: 48 Wellington Parade, East Melbourne
T: 03 9413 000

Adina Apartment Hotel Melbourne on Flinders

A: 88 Flinders Street, Melbourne
T: 03 8663 0000

For those using accommodation options provided through the conference registration portal, please be aware that the hotel will request a credit card or cash deposit upon check in, even if you have paid in full, in case of any incidentals charged to the room.

CONFERENCE WIFI

The Pullman on the Park has complimentary WiFi available in meeting rooms. No password is required to access.

CONFERENCE CATERING

Morning/afternoon teas and lunch will be served in the exhibition area in the Ballroom Foyer during the Conference. Dieteries will be available on a separate table during the breaks.

PRESENTATIONS

Please be aware that while session chairs will do their best to keep speakers to time to allow delegates to move between sessions, we cannot guarantee the exact timing of each talk. Please be mindful when entering sessions to minimise disturbance to presenters.

ONLINE PORTAL

Delegates receive their unique long in details for the online portal via email prior to the conference commencing. Within the portal you will be able to view all keynote presentations live, and for three months following the conference. The portal will also allow you to network with other conference delegates via the Delegate Hub.

DIGITAL POSTERS

Note the Digital Posters will not be displayed at the conference. However, posters will be displayed online in the conference online platform and also on the Conference mobile APP.

ABSTRACT BOOK

The 2023 Abstract Book is available to view and download from the AEA Annual Scientific Meeting 2023 website: <https://www.aea2023.com/program> or view abstracts via the Conference App.

SOCIAL MEDIA

We highly encourage you to share your thoughts and experiences while at the Conference, so if you're on Twitter, Facebook, Instagram or LinkedIn, join the conversation using **#AEA2023**. Please feel free to tag AEA using **@AustralasianEpi**

EVALUATIONS

A Conference evaluation form will be sent to all delegates by email following the conclusion of the Conference.

IAN PRIOR ORATION



DR IAN PRIOR

ABOUT THE ORATION

Ian Prior, born in Masterson, New Zealand, graduated from the Otago University Medical School in 1945 and pursued post-graduate training in cardiology at the National Heart Hospital in London and as a Fulbright scholar at Peter Brigham Hospital in Boston.

Prior's epidemiological research focused on social and environmental factors affecting population and individual risk for cardiovascular disease, primarily within European and Polynesian populations in the South Pacific.

Returning to New Zealand in 1959, Prior became the Director of the Medical Unit at Wellington Hospital and established the Epidemiology Unit in the early 1960s. For the next three decades, he launched ambitious population studies in New Zealand, the Cook Islands, and Tokelau Island, focusing particularly on the effects of migration and environmental changes on chronic diseases in Polynesian populations.

Dr. Prior's interest in global health and policy found an outlet as a founding member of the New Zealand branch of International Physicians for the Prevention of Nuclear War, the same organization that received the Nobel Peace Prize in 1985. Ian Prior was an Honorary Fellow of the Department of Health within Wellington Hospital and an avid supporter of the Wellington Sculpture Trust, which he and his late wife Elespie helped establish in 1982.

2023 ORATION

Oration: Closing the Gaps: the challenge is more urgent than ever and increasingly difficult

Understanding patterns of health and disease and how to address them (epidemiology) is essential for Closing the Gaps in health outcomes between Indigenous and non-Indigenous Australians. In this presentation, Professor Langton will discuss examples of the critical role of epidemiology in Closing the gap, including holding governments to account for progress against targets, protecting Indigenous people from new diseases like COVID-19, and addressing specific life-course issues such as considering the needs of a predominantly young population cohort.



2023 IAN PRIOR ORATOR

Presenter: Professor Marcia Langton AO

Professor Dr. Marcia Langton AO, of the Yiman and Bidjara nations, is an Associate Provost and Foundation Chair of Australian Indigenous Studies at the University of Melbourne. Her academic expertise in anthropology and geography has led her significant contribution to research and policy work.

Langton is widely recognised as a major figure in Indigenous Australian rights and advocacy. Notably, she was a key contributor to the Royal Commission into Aboriginal Deaths in Custody (1989), and the Native Title Act (1993). In 1993, her extensive work in the field led to her receiving membership to the Order of Australia.

In 2023, Australia will be holding a referendum to amend the constitution instating a permanent Indigenous advisory body to parliament, with Langton appointed in 2019 as co-chair to the Senior Advisory Body over the design process.

KEYNOTE SPEAKERS



Professor Kristie Ebi
Centre for Health and the Global
Environment (CHaNGE),
University of Washington, Seattle

Kristie L. Ebi, Ph.D., MPH is a Professor in the Center for Health and the Global Environment in the School of Public Health, University of Washington. She has been conducting research on the health risks of climate variability and change for more than 25 years. Her research focuses on estimating the current and future health risks of climate change; designing adaptation programs to reduce those risks; and quantifying the health co-benefits of mitigation policies. She has provided technical support to multiple countries in Africa, Europe, Asia, and the Pacific in managing climate change-related risks. She was a lead author for the Intergovernmental Panel on Climate Change (IPCC) 6th assessment cycle, including the special report on warming of 1.5°C and the human health chapter for Working Group II. Her scientific training includes an M.S. in toxicology and a Ph.D. and a Master of Public Health in epidemiology, and two years of postgraduate research at the London School of Hygiene and Tropical Medicine. She edited four books on aspects of climate change and has more than 250 peer-reviewed publications.



**Associate Professor
Rayner Kay Jin Tan**
National University of Singapore, Saw Swee Hock,
School of Public Health (Visiting)

Associate Professor Rayner Kay Jin Tan (he/him/his) is a Fulbright visiting research scholar with the University of North Carolina at Chapel Hill and a postdoctoral fellow with the University of North Carolina Project-China in Guangzhou, China. He is also a visiting research fellow at the Saw Swee Hock School of Public Health, National University of Singapore, and the National Centre for Infectious Diseases, Singapore. Rayner is currently a fellow with the HIV Infectious Disease and Global Health Implementation Research Institute at Washington University in St. Louis, and with the Social Innovation in Health Initiative. He was previously a fellow with the Asia-Pacific AIDS and Co-Infections Conference (APACC). Rayner currently serves as a Digital International Society for Sexually Transmitted Diseases Research Champion, an organizing committee member of the International AIDS Society (IAS) 2023 conference, and as a member of the APACC scientific committee. He is vice-president of the Society of Behavioural Health, Singapore. Rayner's research broadly revolves about the social determinants of health and social epidemiology. He has a special interest in approaches to address the social and behavioural dimensions of HIV, STIs and substance use.



Professor Fay Johnston
Menzies Institute for Medical Research

I am public health physician and environmental epidemiologist. My major work is in air quality and health, especially relating to the health impacts of bushfire smoke, biomass smoke, pollen and other airborne hazards. I am lead investigator of the Centre for Safe Air - a NHMRC Centre of Research Excellence 2023-8. I co-lead the Air Quality Impact Priority of the National Environmental Science Program 2021-8, and the bushfires, air pollution and extreme events theme of the NHMRC Healthy Environments and Lives research network 2021-6. I lead the Latrobe Early Life Follow-up Study (2014-23), a cohort study investigating long-term cardiorespiratory, health and development of children exposed to a severe pollution event associated with a coal mine fire during their first 1000 days of life.

I have a strong interest in applied, solutions-focused research and am proud to have led the team that developed AirRater - a data platform and app providing real-time environmental and symptom tracking to support self-management for people with health conditions sensitive to outdoor hazards like air pollution and pollen.



Professor Susan Morton

Research Institute for Innovative Solutions for Well-being and Health, Faculty of Health, University of Technology Sydney

Professor Morton is an internationally recognized expert in transdisciplinary life course research. Susan is a Public Health Physician who undertook her medical training in Auckland New Zealand in the 1990s before taking up a Commonwealth Scholarship at the London School of Hygiene and Tropical Medicine where she completed a PhD in life course epidemiology working on revitalizing the Aberdeen Children of the 1950s cohort study. Her time in Europe introduced her to the value and utility of longitudinal studies and the extraordinary evidence that can emerge from following ordinary lives over time.

On returning to New Zealand in 2003 she went on to lead the establishment of a cross-faculty Research Centre at the University of Auckland (He Ara ki Mua) and designed and led the multi-disciplinary team of researchers who established the contemporary longitudinal study of child and family wellbeing - Growing Up in New Zealand.

In February 2023 she has taken up a new challenge to be the inaugural Director of a new pan-University Research Institute at UTS in Sydney – called INSIGHT – whose overarching goal is to provide innovative solutions to improve life course health and wellbeing.



Associate Professor Becky Freeman

Faculty of Medicine and Health,
The University of Sydney

A/Prof Becky Freeman is a public health academic within the Prevention Research Collaboration, School of Public Health, University of Sydney. She is a tobacco control policy expert and a global authority on how social media is used to circumvent tobacco-advertising bans. She leads a program of research focused on countering the commercial determinants of health and is the Chief Investigator of the Generation Vape Research project. She has pioneered methods in monitoring and systematically analysing social media content. Her expertise is focused on: 1) how policy processes are manipulated by industries that are harmful to health and 2) how they use digital and social media, to both promote their products and influence public and political attitudes towards public health regulation. Her research also considers how public health bodies could make better use of these same digital media tools for chronic disease prevention.



Professor Kathryn Backholer

National Heart Foundation Future Leader Fellow, Institute for Health Transformation, Deakin University

Kathryn Backholer is Professor and Co-Director of the Global Centre for Preventive Health and Nutrition at Deakin University, which includes a World Health Organization Collaborating Centre for the Prevention of Obesity. Kathryn leads a program of research focused on the social, commercial and cultural determinants of population health and is particularly interested in interdisciplinary solutions to complex public health problems. She regularly contributes to capacity building and food systems strengthening for UNICEF, the WHO and the FAO in the East Asia Pacific and South Asia regions. Kathryn is Vice President for development at the Public Health Association of Australia.

SPONSORS & EXHIBITORS

A special thank you to the AEA Annual Scientific Meeting 2023 Sponsors and Exhibitors.



ASSOCIATE SPONSOR | The University of Melbourne

W: www.mspgh.unimelb.edu.au

E: ceb-admin@unimelb.edu.au

A: 207 Bouverie St, Parkville VIC 3010

The Melbourne School of Population and Global Health (MSPGH) is a respected leader in the field of public health education, research and knowledge exchange. MSPGH was established in 2001 as the first school of its kind in Australia with a vision to make a difference in the population and public health sphere - building on the substantial assets of our University to advance public health in communities nationally and internationally - with a strong focus on Indigenous peoples.

The Centre for Epidemiology and Biostatistics is one of four Centres and an Institute that comprise the Melbourne School of Population and Global Health. The Centre for Epidemiology and Biostatistics is at the forefront of a preventive health revolution. Big data, changing infectious diseases patterns and multi-disciplinary collaborations are transforming the ways public health disciplines are researched and taught. Our Centre aims to be a leader in this evolving environment.



SUPPORT SPONSOR | Institute for Health Transformation, Deakin University

W: <https://www.deakin.edu.au/health-social-development>

E: k.morrissy@deakin.edu.au

A: Deakin University, Burwood Campus, VIC

The Institute for Health Transformation (IHT) was established in 2018 to drive translational research in health systems that supports evidence-informed policy and practice leading to improved population health and health system sustainability. Lead researchers from IHT support the School of Health and Social Development's teaching programs in public health, epidemiology, biostatistics and health economics, providing students with evidence-informed research, policy and practice. Among IHT's many leading researchers, is Professor Catherine Bennett whose research into the COVID-19 pandemic is generating new knowledge, informing evidence-based decision making by governments in the design and delivery of care and prevention.



AFFILIATION SPONSOR | The School of Public Health, The University of Queensland

W: <https://medicine.uq.edu.au/>

E: sph.hos.ea@uq.edu.au

A: 288 Herston Road, Herston QLD 4006

UQ's School of Public Health is committed to improving the health and wellbeing of populations in a changing and inequitable world. The School is ranked 2nd in Asia Pacific and 30th in the world for Public Health and our research impacts the world's most pressing population and public health challenges.



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David White, Director

W: www.surveymdesign.com.au

E: david.white@surveymdesign.com.au

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SUPPORT ASSIST SPONSOR | The Doherty Institute

W: www.doherty.edu.au

E: doherty-reception@unimelb.edu.au

A: 792 Elizabeth Street, Melbourne VIC 3000

Finding solutions to prevent, treat and cure infectious diseases and understanding the complexities of microbes and the immune system requires innovative approaches and concentrated effort. This is why the [University of Melbourne](http://www.unimelb.edu.au) – a world leader in education, teaching and research excellence – and [The Royal Melbourne Hospital](http://www.royalmelbournehospital.com.au) – an internationally renowned institution providing outstanding care, research and learning – partnered to create the Peter Doherty Institute for Infection and Immunity (Doherty Institute); a centre of excellence where leading scientists and clinicians collaborate to improve human health globally.

The Doherty Institute will be an inspiring, innovative, and enabling cross-disciplinary environment. We are dedicated to identifying and addressing fundamental challenges in all aspects of infection and immunity. Through our leadership, advocacy and education we will shape research, policy, and practice to improve health for communities both nationally and internationally.



BANNER SUPPORTER | Australian Research Data Commons (ARDC)

W: www.ardc.edu.au

E: contact@ardc.edu.au

Australian Research Data Commons

A: ARDC has offices in Melbourne, Sydney, Canberra, Brisbane, Adelaide and Perth

The Australian Research Data Commons (ARDC) drives development of world-class national digital research infrastructure that provides Australian researchers competitive advantage through data and supports research impact. The ARDC is Australia's leading facility for research data infrastructure. We facilitate access to research data sets and tools from academia, industry and government for all Australian researchers. To meet the needs of health and medical researchers, we're co-designing a People Research Data Commons (People RDC) with partners in research, industry and government. The People RDC builds on the ARDC's experience creating national digital research infrastructure for health and medical researchers. Learn more about one of the projects, Linked Data Asset for Australian Health Research (LINDAHR), we have worked on for this domain: <https://ardc.edu.au/project/linked-data-asset-australian-health-research/>

SPONSORS & EXHIBITORS



EXHIBITOR | Australian Institute of Health and Welfare

W: <https://www.aihw.gov.au>
E: communications@aihw.gov.au
A: Bruce ACT 2617

The AIHW is an independent statutory Australian Government agency producing authoritative and accessible information and statistics to inform and support better policy and service delivery decisions, leading to better health and wellbeing for all Australians.

We are focused on turning data into useful information and telling the broader story.



EXHIBITOR | Generation Victoria (GenV) & Murdoch Children's Research Institute

W: www.genv.org.au
E: genv@mcri.edu.au
A: Parkville, Melbourne, VIC

GenV is a research initiative designed to advance health and wellbeing in smarter and faster ways, designed to answer multiple questions such as preterm birth, mental illness, obesity, learning, allergies and more.

GenV's primary objective is to create large, parallel whole-of-state birth and parent cohorts for discovery and interventional research.

It will enable researchers to explore the issues affecting Victoria's children and their families with greater speed and precision than we can today, allowing them to explore the critical links between environmental exposures, genome (genetics), physical characteristics and later outcomes across the life course.

GenV will generate translatable evidence — including novel approaches to prediction, prevention, treatments, and services — to improve future wellbeing and reduce the future disease burden of all children and the adults they become.



EXHIBITOR | Australian Institute of Family Studies

W: <https://aifs.gov.au/>
E: enquiries@aifs.gov.au
A: Level 4, 40 City Road, Southbank VIC 3006

The Australian Institute of Family Studies (AIFS) is a Melbourne-based Australian Government statutory agency. It was established in 1980 under the Family Law Act 1975. AIFS' mission is to conduct high-quality, impartial research into the wellbeing of Australian families, to inform government policy and promote evidence-based practice in the family services sector. AIFS also manages a number of landmark longitudinal studies for the Australian Government, including Ten to Men: The Australian Longitudinal Study on Male Health.

EXPERIENCE THE BENEFITS OF BEING AN AEA MEMBER **TODAY!**

About the Australasian Epidemiology Association

The Australasian Epidemiological Association aims to develop and promote the discipline of epidemiology in Australasia through:

- promoting excellence in the practice of epidemiological methods;
- communication of issues relevant to epidemiologists;
- advocating for funding, capacity building and policy development;
- strategic alliances with related organisations to maintain high standards of public health practice, teaching and research in Australasia.

This is achieved through being an organisation committed to excellence in governance, with a strong member focus.

Benefits of Membership

Email Bulletin - A fortnightly email bulletin is distributed to all members and provides notices of official AEA business and information on relevant employment opportunities, training courses, workshops and conferences.

AEA Annual Scientific Meeting – Members receive discounted registration fees at the annual scientific meeting.

Annual Awards - Many annual awards recognising excellence and supporting professional development.

Chapters and Special Interest Groups (SIGs) – The AEA encourages and supports the establishment of local epidemiology interest groups to undertake ongoing collegial activities such as training or mentoring.

Student Membership (applicable for undergraduate and postgraduate students) - The AEA encourages student participation. Student workshops are held at the annual scientific meeting. The AEA supports several awards aimed specifically at students.

Membership

Our membership fees cover the costs of the bulletin and other Benefits of Membership. The full AEA membership fee is AUD\$110 annually, with a reduced rate for students, members in Pacific Island Countries (PIC) (not including NZ), and those with special circumstances (retired, low income/hardship) of AUD\$60 annually.

The Australasian Epidemiological Association (AEA) is the professional organisation dedicated to excellence in epidemiological research, education, training and advocacy in the Australasian and Oceanic region.

JOIN TODAY AT WWW.AEA.ASN.AU

PRE-CONFERENCE WORKSHOPS

TIME	SESSION	ROOM
7:30am - 5:30pm	Pre-Conference Registration Open	Ballroom Foyer
Pre-Conference Workshops - Wednesday 18 October		
9:00am - 10:30am	<p>Workshop 1 (full day - 9.00am - 5.00pm) – Causal analysis methods: beyond standard regression</p> <p>Presented By:</p> <ul style="list-style-type: none"> • Associate Professor Margarita Moreno-Betancur, Principal Research Fellow, CEBU Co-Director, MCRI and University of Melbourne • Professor John Carlin, Senior Principal Research Fellow, MCRI and University of Melbourne • Dr Ghazaleh Dashti, Biostatistician, MCRI and University of Melbourne • Dr Marnie Downes, Biostatistician, MCRI and University of Melbourne • Dr Daisy Shepherd, Postdoctoral Research Fellow, MCRI and University of Melbourne • Dr Rushani Wijesuriya, Biostatistician, MCRI and University of Melbourne • Dr Tong Chen, Biostatistician, MCRI and University of Melbourne <p>In this era of “data science” it is vitally important to articulate clearly the questions that we ask of data, understand the challenges inherent in answering different types of questions, and ensure that our analysis methods are suitably aligned. Many clinical and public health research studies ask causal (“what if...”) questions, about the effects of treatments, policies, behaviours and other exposures on health outcomes. Answers to these questions are key to guiding decision making in health policy and practice when the goal is to improve patient outcomes and population health. Causal inference requires carefully structured reasoning to guide appropriate statistical analysis.</p> <p>This workshop will combine lectures and tutorials to provide an understanding of key concepts relating to the design of causal analyses, and analysis methods beyond standard regression, specifically g-computation and inverse probability (or “propensity score”) weighting (IPW) for estimating causal effects. Emphasis will be on the underlying intuition and assumptions, whilst a hands-on computer practical (in R and Stata) will cover implementing estimation methods in practice. All lectures and tutorials will include illustrations from observational epidemiological studies. Electronic copies of presentation materials will be made available to course attendees.</p>	Ballroom 1
9:00am - 10:30am	<p>Workshop 2 – (90-min) Using the SHINE Health Intervention Impact Calculator (HIIC)</p> <p>Presented By:</p> <ul style="list-style-type: none"> • Professor Tony Blakey, Epidemiologist and Public Health Medicine Specialist, Population Interventions Unit, Melbourne University • Dr Tim Wilson, Simulation modeller, Population Interventions Unit, Melbourne University <p>HIIC is an online tool for estimating the health gain, health expenditure and productivity impacts of interventions. Before using HIIC, the user first estimates what the intervention will achieve in terms of a percentage change in future disease rates (disease incidence, morbidity or case fatality rates). For example, an urban transport intervention might lower asthma incidence by X% and COPD severity by Y%. Given these inputs, HIIC outputs the health adjusted life years (HALYs), expenditure and income productivity impacts - by year into the future. The user can then compare their intervention with other more formally evaluated interventions. If the user also has an estimate of the up-front cost of the intervention, HIIC estimates cost-effectiveness.</p> <p>These HIIC outputs should be of high value to:</p> <ul style="list-style-type: none"> • researchers wanting to quantify (e.g. in publications) the impact an intervention they are studying • policy makers and advocacy groups wanting to prioritise which interventions should (and should not) be implemented. 	Ballroom 2

TIME	SESSION	ROOM
Pre-Conference Workshops - Wednesday 18 October - continued		
10:30am - 11:00am	Pre-Conference Workshop Morning Tea	Ballroom Foyer
11:00am – 12:15pm	Workshop 1 continued – Causal analysis methods: beyond standard regression	Ballroom 1
12:15pm – 1:00pm	Pre-Conference Workshop Lunch	Ballroom Foyer
1:00pm – 3:00pm	Workshop 1 continued – Causal analysis methods: beyond standard regression	Ballroom 1
	Workshop 3 (Half day) – The Science, Art and Opera of Epidemiology Presented By: Professor John Hopper, Professor Fellow, Melbourne School of Population and Global Health, University of Melbourne The Workshop will cover half a dozen major topics discussing my personal views on what Epidemiology and Statistics are all about (such as trying to find the signal from the noise), understanding the difference between a risk factor and a risk score, the multiple uses and advantages of family and twin study designs especially now that proper control samples are almost impossible to collect, clarifying the difference between population and sample and understanding about whom inference is being made, causes of variation versus causes per se, effects versus associations, making inference about causation using paired and/or family data and novel methods for making statistical inference, understanding what power calculations are all about once you know what the hypothesis and test statistic is, how epidemiological thinking can improve the practice of artificial intelligence (AI), and vice versa, and finally about terminology and how to write an epidemiology paper.	Ballroom 2
3:00pm – 3:30pm	Pre-Conference Workshop Afternoon Tea	Ballroom Foyer
3:00pm – 5:00pm	Workshop 1 continued – Causal analysis methods: beyond standard regression	Ballroom 1
3:00pm – 5:30pm	Workshop 3 continued – The Science, Art and Opera of Epidemiology	Ballroom 2
5:30pm	End of Pre-Conference Workshop Program	
6:00pm – 7:00pm	Welcome Reception	Ballroom Foyer Pullman Melbourne

Thursday 19 October

TIME	SESSION	ROOM
7:30am - 5:00pm	Conference Registration Open	Ballroom Foyer
8:00am - 5:00pm	Exhibition Open	
Opening Plenary Session 1 - Epidemiology's role in reducing environmental and sexual health inequities		
Chairs:	Professor Adrian Lowe, Principal Research Fellow, Melbourne School of Population and Global Health, University of Melbourne & Dr Steve Simpson-Yap, Centre for Epidemiology and Biostatistics, Melbourne School of Population & Global Health, The University of Melbourne	
8:30am - 10:00am	<p>Welcome to Country Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation</p> <p>Welcome from AEA Chairs Professor Adrian Lowe, Principal Research Fellow, Melbourne School of Population and Global Health, University of Melbourne & Dr Steve Simpson-Yap, Centre for Epidemiology and Biostatistics, Melbourne School of Population & Global Health, The University of Melbourne</p> <p>Climate changes health Keynote Speaker: Professor Kristie Ebi, Professor Global Health, Centre for Health and the Global Environment (CHaNGE), University of Washington, Seattle</p> <p>Climate change is already adversely affecting human health and health systems, with projected future changes expected to alter the geographic range and burden of a variety of climate-sensitive health outcomes and to affect the functioning of public health and health care systems. If no additional actions are taken, then over the coming decades, substantial increases in morbidity and mortality are expected in association with a range of health outcomes, including heat-related illnesses, illnesses caused by poor air quality, undernutrition from reduced food quality and security, and selected vectorborne diseases in some locations. At the same time, worker productivity is expected to decrease, particularly at low latitudes. Vulnerable populations and regions will be differentially affected, with expected increases in poverty and inequities because of climate change. Investments in and policies to promote proactive and effective adaptation and reductions in greenhouse-gas emissions would decrease the magnitude and pattern of health risks.</p> <p>A global perspective on wildfires Keynote Speaker: Professor Fay Johnston, Professor, Menzies Institute for Medical Research, University of Tasmania</p> <p>This presentation will describe global variation in landscape fires, their health, social and environmental impacts, with a focus on two of the most damaging types of fire globally - tropical deforestation fires and severe wildfire disasters.</p> <p>Integrating community engagement and social epidemiology to achieve health equity in sexual health Keynote Speaker: Associate Professor Rayner Kay Jin Tan, Assistant Professor, National University of Singapore, Saw Swee Hock, School of Public Health</p> <p>This talk will highlight how community-engaged and bottom-up approaches can address health inequities through a social determinants of health lens. I will start the presentation with operational definitions of social epidemiology and community engagement, followed by a review of the literature on how community engagement has been conceptualized, operationalized, measured. I will then share theoretical perspectives on how community-led approaches can help policymakers "diagnose upstream, and prescribe downstream" to address health disparities. I will corroborate this with evidence on the utility of community engagement in benefiting equity at the local and global level. Lastly, I will draw on findings from my own research to share methods of deepening community engagement in research and health services delivery.</p>	Grand Ballroom

TIME		SESSION				
10:00am – 10:30am		Morning Tea				Ballroom Foyer
10:30am – 12:00pm - Concurrent Session 1						
Time	1A – Data linkage Methods Room: Ballroom 1 Chairs: Nancy Baxter & Ellie Medcalf	1B – Health Equity 1 Room: Ballroom 2 Chairs: Tania King & Tori Diamond	1C – Cancer 1 Room: Ballroom 3 Chair: John Matthews	1D – Cardiovascular disease Room: Delacombe Room Chairs: Abbey Diaz & Samantha Howe	1E - Child/infant/perinatal/adolescent health 1 Room: LaTrobe Room Chair: Camille Raynes-Greenow & Sharan Ram	
10:30pm – 12:00pm	Introduction Speaker: Caitlin Szigetvari	Impact of interpersonal racism on health and healthcare utilisation: national prospective study Speaker: James Stanley	Lifestyle and all-cause and cancer-specific mortality among cancer survivors: A cohort study Speaker: Stephanie Byrne	Associations of neighbourhood greenery with cardiometabolic risk: moderation by recreational walking Speaker: Nyssa Hadgraft	BMI trajectories during infancy are associated with psychosocial outcomes in late childhood Speaker: Claire Gallagher & Bircan Erbas	
	Disparities in patterns of medication use following an Acute Coronary Syndrome hospitalisation Speaker: Tessa Morgan	Novel multi-sectoral data linkages to monitor health inequities among justice-involved young Australians Speaker: Lindsay Pearce	Adherence to cancer prevention recommendations and risk of cancer: a prospective study Speaker: Yang Peng	Low-density-lipoprotein cholesterol and mortality outcomes in a large community-based older cohort Speaker: Zhen Zhou	Recurrence of congenital heart defects in siblings: a multinational comparison Speaker: Samantha Lain	
	Transitions of care for people living with dementia—insights using linked data Speaker: Bronwyn Wyatt	Northern Territory Population Health Survey 2022: Disparities in outcomes critical to address Speaker: Xiaohua Zhang	Endocrine treatment for cancer among Indigenous peoples: a systematic review and meta-analysis Speaker: Sewunet Belachew	Maximising resources for epidemiology practice: lessons from using Big Data in Stroke Speaker: Monique Kilkenny	Excess mortality in childhood-onset Type 1 diabetes: population-based study Speaker: Natasha Nassar	
	Strengthening national COPD monitoring using linked health services data Speaker: Tylie Bayliss	Discharge against medical advice in Western Australian Aboriginal children, 2002-2018 Speaker: Daniel Christensen	An emulated trial investigating the association between nitrogen-based bisphosphonates and ovarian cancer Speaker: Karen Tuesley	Preoperative factors of 30-day mortality and Percutaneous Coronary Intervention: A systematic review Speaker: Mohammed Chowdhury	Inequalities in survival in children with neuroblastoma and central nervous system cancers Speaker: Nina Afshar	

Thursday 19 October

TIME	SESSION				
10:30pm – 12:00pm - Concurrent Session 1 - <i>continued</i>					
Time	1A – Data linkage Methods Room: Ballroom 1 Chairs: Nancy Baxter & Ellie Medcalf	1B – Health Equity 1 Room: Ballroom 2 Chairs: Tania King & Tori Diamond	1C – Cancer 1 Room: Ballroom 3 Chair: John Matthews	1D – Cardiovascular disease Room: Delacombe Room Chairs: Abbey Diaz & Samantha Howe	1E - Child/infant/perinatal/adolescent health 1 Room: LaTrobe Room Chair: Camille Raynes-Greenow & Sharan Ram
10:30pm – 12:00pm	COVID-19 cases during the Delta wave: Establishing a cohort using linked data Speaker: Anna Reynolds	Visualising Landscapes of Deprivation 2.0 Speaker: Daniel Exeter	Breast cancer risk prediction based on an artificial intelligence created detection algorithm Speaker: John Hopper	Bayesian spatial analysis enhances planning of targeted interventions in out-of-hospital cardiac arrest Speaker: Stuart Howell	Young carers, bullying and mental health – a causal mediation analysis Speaker: Ludmila Fleitas Alfonso
	Get ready for Generation Victoria (GenV)! - a statewide intervention-capable parent and child cohort Speaker: Jatender Mohal	Housing and Homelessness in Adolescence: Evidence from Growing Up in New Zealand Speaker: Polly Atatoa Carr	Spatiotemporal analysis of timeliness of lung cancer care and area-level determinants Speaker: Getayeneh Tesema	Inflammation and cardiovascular health in children and adults: analysis of three cohorts Speaker: Toby Mansell	Inequalities in hospital outcomes for Australian children from priority populations Speaker: Jahidur Rahman Khan
	Using administrative data to ascertain cancer treatment information: validation against medical records Speaker: Kate Gersekowski	Using linked data to report on health outcomes of Humanitarian entrants Speaker: Nikki Harvey	Cancers from low dose ionizing radiation: what risk from medical X-rays? Speaker: John Mathews	Identifying aspects of socialisation that predict cardiovascular disease: A machine learning approach Speaker: Achamyeleh Teshale	Colostrum microbiome and childhood allergy Speaker: Carolyn Lodge
		Mental health impacts of employment precarity and financial insecurity for young Australians Speaker: Stefanie Dimov	Joint effects of smoking and alcohol drinking on liver cancer risk Speaker: Thi Tra Bui	Cardiovascular diseases risk factors among rural-to-urban migrants compared with their non-migrant siblings Speaker: Shirin Jahan Mumu	Academic achievement among children with chronic kidney disease in the KCAD study Speaker: Anita Van Zwieten
			Translation of trial treatments in the real world: case study of bevacizumab Speaker: Tanya Ross		Reduced infant pertussis severity following vaccination of pregnant mothers in Spain, 2005-2019 Speaker: Andrea Parisi

TIME		SESSION			
12:00pm – 1:00pm	Lunch				Ballroom Foyer
1:00pm – 2:30pm - Concurrent Session 2					
Time	2A – Chronic disease Room: Ballroom 1 Chairs: Steve Simpson-Yap & Ye Kyaw Aung	2B - Health Equity 2 Room: Ballroom 2 Chairs: Ken Winkel & Ludmila Fleitas Alfonzo	2C – Cancer 2 Room: Ballroom 3 Chair: Brigid Lynch	2D – Student Session Room: Delacombe Room Chairs: Adrian Lowe & Tanya Ross	2E - Child/infant/perinatal /adolescent health 2 Room: LaTrobe Room Chairs: Susan Morton & Masum Billah
1:00pm – 2:30pm	Healthy diet associated with less clinical severity in people with multiple sclerosis Speaker: Steve Simpson-Yap	Quantitative and qualitative trends in Northern Territory Aboriginal Health Key Performance Indicators Speaker: Rowena Boyd	Timing of contraceptive use and pregnancy in relation to endometrial cancer risk Speaker: Nina Na	The sex-steroid hormone pathway and risk of postmenopausal oestrogen receptor-positive breast cancer Speaker: Frances Albers	Fathers' pre-pubertal passive smoke exposure impairs lifetime lung function in their offspring Speaker: Jiacheng Liu
	Triglycerides, risk of incident dementia, and cognition change among community-dwelling older adults Speaker: Zhen Zhou	The impact of Australia's Indigenous Practice Incentives Program on mortality Speaker: Karinna Saxby	Variance of Age-specific Log Incidence Decomposition (VALID): application to female breast cancer Speaker: John Hopper	Five-year vs ten-year predicted cardiovascular disease risk in Aotearoa New Zealand Speaker: Jingyuan Liang	Prenatal antipsychotic exposure and risk of developmental disorders: A multinational cohort study Speaker: Claudia Bruno
	Arterial stiffness and incident chronic kidney disease in a large population cohort Speaker: Angela Beros	Inequalities in suicide deaths for people with disability in Australia Speaker: Zoe Aitken	Factors for times to diagnosis and treatment in patients with lung tumours Speaker: Jianrong Zhang	Associations between pathological features and risk of metachronous colorectal cancer Speaker: Ye Zhang	Neonatal PFAS and asthma and lung function at 18 years Speaker: Caroline Lodge
	The performance of MHI-5 depression screening tool in people with multiple sclerosis Speaker: Xirun Yang	Measuring indigenous outcomes and inequity—is a different approach to age-standardisation needed? Speaker: Tori Diamond	Sexual function outcomes 12 months after treatment in men with prostate cancer Speaker: Zemenu Tadesse Tessema	Probiotics vs. pharmacological maintenance therapies for functional constipation in children: Network meta-analysis Speaker: Rebecca Harris	Prenatal cannabis use and the risk of neurodevelopmental disorders in offspring: Meta-analysis Speaker: Abay Tadesse

Thursday 19 October

TIME	SESSION				
1:00pm – 2:30pm - Concurrent Session 2 - continued					
Time	2A – Chronic disease Room: Ballroom 1 Chairs: Steve Simpson-Yap & Ye Kyaw Aung	2B - Health Equity 2 Room: Ballroom 2 Chairs: Ken Winkel & Ludmila Fleitas Alfonzo	2C – Cancer 2 Room: Ballroom 3 Chair: Brigid Lynch	2D – Student Session Room: Delacombe Room Chairs: Adrian Lowe & Tanya Ross	2E - Child/infant/perinatal /adolescent health 2 Room: LaTrobe Room Chairs: Susan Morton & Masum Billah
1:00pm – 2:30pm	Longitudinal trends in multiple sclerosis epidemiology in eastern Australia, 1951 to 2022 Speaker: Steve Simpson-Yap	Housing Australian children: a snapshot of health inequalities in early life Speaker: Yuxi Li	Solid cancer risks from CT scans in Australian Radiation Study Speaker: Yaqi Lin	Life expectancy stagnates in Fiji and Tonga, 2008-2018 Speaker: Catherine Dearie & Carah Figueroa	Effectiveness of electronic job aid-supported counselling in improving infant feeding practices Speaker: Sk Masum Billah
	Implementation of diabetes screening and associated factors in community pharmacy Speaker: Tesfaye Feyissa	Access and service utilisation inequalities in the National Disability Insurance Scheme Speaker: Yi Yang	Pharmaceutical opioid use and cancer incidence in the 45 and Up Study Speaker: Peter Sarich	Machine learning to identify people who inject drugs for hepatitis C surveillance Speaker: Carol El-hayek	Prevalence and risk factors of cow's milk allergy in south-east Australia Speaker: Victoria Soriano
	Patient-reported experiences associated with readmission risk among adults with chronic health conditions Speaker: Sadaf Marashi-Pour	Rurality, deprivation and ethnicity: their intersection and impact on mortality Speaker: Gabrielle Davie	Spatial survival methods application in cancer research: trends, modelling and visualization techniques Speaker: Mabtamu Mellie Bizuayehu		The impact of food allergy on growth at ages 6-10 years Speaker: Rachel Peters
	Using genomic variant signatures for low-cost detection of coeliac Disease Speaker: Benjamin Goudey	Early life socioeconomic factors and cardiometabolic disease in adulthood amongst Aboriginal Australians Speaker: Prashanti Manchikanti	Association between unstable diabetes mellitus and risk of pancreatic cancer Speaker: Sitwat Ali		

TIME	SESSION	
1:00pm – 2:30pm - Concurrent Session 2 - <i>continued</i>		
Time	2A – Chronic disease Room: Ballroom 1 Chairs: Steve Simpson-Yap & Ye Kyaw Aung	2B - Health Equity 2 Room: Ballroom 2 Chairs: Ken Winkel & Ludmila Fleitas Alfonzo
1:00pm – 2:30pm	Identifying social health components associated with dementia risk: a machine learning approach Speaker: Htet Lin Htun	Whānau-focused RCT of a health needs assessment and navigation service in paediatrics Speaker: Amy Jones & Polly Atatoa Carr
2F - Pre-recorded ONLINE ONLY		
	<ol style="list-style-type: none"> Socioeconomic position, inflammation, metabolomic profile and cardiometabolic risk in early to mid-childhood Speaker: Peixuan Li Estimated changes in OECD health expenditure from meeting NCD mortality reduction targets Speaker: Jingjing Yang Reducing the burden due to overweight (including obesity) and physical inactivity Speaker: Vergil Dolar Participant motivators and expectations in the MEL-SELF trial of melanoma patient-led surveillance Speaker: Deonna Ackerman Intra-urban risk assessment of occupational injuries and illnesses associated with hot weather Speaker: Syeda Fatima Understanding how gender interacts with other social determinants of health inequities Speaker: Joanne Flavel Australian Cancer Atlas 2: New horizons for a world-leading health communication tool Speaker: Jessica Cameron Linking individuals to areas: protecting confidentiality while preserving research utility Speaker: Jessie Colbert 	<ol style="list-style-type: none"> General anaesthesia duration in early childhood and subsequent neurodevelopment and school performance Speaker: Francisco Schneuer Heat exposure and unplanned hospital admissions in New South Wales children Speaker: Wen-qiang He Health insurance and dentist visits: a comparison of three cohorts of women Speaker: Louise Wilson Susceptible periods of PM2.5 and biothermal stress on term low birth weight Speaker: Sylvester Nyadanu A review on mammographic textures as strong breast cancer risk predictors Speaker: Zhoufeng Ye Causal relationships between breast cancer risk factors based on mammographic features Speaker: Zhoufeng Ye Pain and its interference in daily living in relation to cancer Speaker: Grace Joshy Current and future burden of Ross River virus infection attributable to temperature Speaker: Yohannes Dامتew
2:30pm - 4:00pm	<p>Early Career Workshops Dr Ghazaleh Dashti, Postdoctoral Fellow, Clinical Epidemiology and Biostatistics Unit, Murdoch Children’s Research Institute Dr Jianrong Zhang, PhD candidate, Dept. General Practice & Centre for Cancer Research, University of Melbourne; Victorian Comprehensive Cancer Centre Dr Brooklyn Fraser, Early-Career Postdoctoral Research Fellow, Menzies Institute for Medical Research, University of Tasmania</p> <p>Discussants: Professor Dallas English, Senior Principal Research Fellow, Cancer Council Victoria. Associate Professor Margarita Moreno-Betancur Co-director, Clinical Epidemiology & Biostatistics Unit, Murdoch Children's Research Institute & University Of Melbourne.</p> <p>Presenters: Dr Madeleine Hinwood, The University of Newcastle. Ms Isobel Todd, Murdoch Children’s Research Institute and The University of Melbourne</p>	Delcombe Room
3:30pm - 4:00pm	Afternoon Tea	Ballroom Foyer

Thursday 19 October

TIME	SESSION	ROOM
Ian Prior Oration		
Chairs:	Dr Steve Simpson-Yap, Senior Research Fellow, Centre for Epidemiology and Biostatistics, Melbourne School of Population & Global Health, Melbourne University & Professor Adrian Lowe, Principal Research Fellow, Melbourne School of Population and Global Health, University of Melbourne &	
4:00pm - 5:00pm	<p>Closing the Gaps: the challenge is more urgent than ever and increasingly Orator: Professor Marcia Langton AO, Associate Provost and Foundation Chair of Australian Indigenous Studies, University of Melbourne</p> <p>Understanding patterns of health and disease and how to address them (epidemiology) is essential for Closing the Gaps in health outcomes between Indigenous and non-Indigenous Australians. In this presentation, Professor Langton will discuss examples of the critical role of epidemiology in Closing the gap, including holding governments to account for progress against targets, protecting Indigenous people from new diseases like COVID-19, and addressing specific life-course issues such as considering the needs of a predominantly young population cohort.</p> <p>HOLDING GOVERNMENTS TO ACCOUNT: The data analysis used to report on the progress (or lack of progress) on the 46 Closing the Gap targets is complex, with progress slow in many instances and in some cases getting worse. With regards to the education-related targets, the status is below the target trajectory proportions for Outcome areas, 4, 5, 6, and 7, with only Outcome 3 is on target. H1N1 had a disproportionate impact on Indigenous communities, and those hard lessons from the data drove a strong Indigenous led response to the COVID-19 pandemic which saved countless lives – and is a great example of what good epidemiology, led by the right people and done the right way, can achieve. We need Indigenous epidemiologists to address unique population characteristics. For example, the largest cohort of the Australian Indigenous population is young and highly disadvantaged. This is vitally important to understand, especially given the extent of the disadvantages they face now and will face increasingly in the future with the challenges brought on by climate change. In 2021, one-third (33.1%) of Aboriginal and Torres Strait Islander Australians were aged under 15 years compared with 17.9% of non-Indigenous people in the same age group. Those of us working in any area in the health research workforce have an obligation to participate in activities that close the gap for this cohort, whether in epidemiology and other research activities that monitor and report on progress against the closing the gap targets or advising or making recommendations on how best to close those gaps.</p> <p>As reported by most Indigenous epidemiologists and health researchers, the solutions must be Indigenous-led, local and place-based, but rigorously supported by the evidence. The future health and wellbeing of this great majority of the Indigenous population depends on getting this right, and that means involving the research community, the governmental institutions we report to, and giving brave and frank advice to all levels of government and service providers.</p>	Grand Ballroom
AEA Annual General Meeting and Student Awards		
5:00pm - 6:30pm	AEA Annual General Meeting and Awards	Grand Ballroom
7:00pm - 10:30pm	AEA 2023 Conference Networking Dinner and Awards Ticketed event: purchased online through your conference registration.	Percy Beames Bar, Melbourne Cricket Ground
10:30pm	End of Conference Day 1	

Digital Posters - Online Only

- DP1 - Knowledge, Stigma and Prevalence of HBV among two populations from Nepal **Author:** Sam Hogan
- DP2 - Factors associated with hysterectomies in low and middle-income countries: a systematic review **Author:** Jesty Saira Varghese
- DP3 – Self-controlled case series methodology and real-world datasets: lessons learned during COVID **Author:** Aishwarya Shetty
- DP4 – Causal inference and mediation methods in randomised controlled trials: a scoping review **Author:** Ellie Medcalf
- DP5 – Dietary patterns and gastrointestinal cancer risk and mortality: Systematic review **Author:** Zegeye Abebe Abitew
- DP6 – Prevalence of Toddlers Meeting 24-Hour Movement Guidelines and Associations with Parental Practices **Author:** Elise Rivera
- DP7 – Towards a better asthma monitoring through national asthma indicators **Author:** Ruihua Guo
- DP8 – Longitudinal epidemiology of multiple sclerosis in Townsville, Queensland, Australia, 2012-2022 **Author:** Steve Simpson-Yap
- DP9 – The effect of becoming unemployed on affordability of oral health care **Author:** Gagandeep Kaur
- DP10 – Impact of childhood PCV13 introduction on adult pneumonia hospitalizations in Mongolia **Author:** Kirsten Fagerli
- DP11 – Changing epidemiology of multiple sclerosis in Newcastle, Australia: 1961 to 2021 **Author:** Steve Simpson-Yap
- DP12 – Long-term risk of COVID-19 after extreme smoke exposure **Author:** Tyler Lane
- DP13 – Environmental Health Tracking and Translation at the Environment Protection Authority Victoria **Author:** Martine Dennekamp
- DP15 – NEWS2: Early Warning System for COVID-19 Deterioration and ICU Admission in Bangladesh **Author:** Nadira Kakoly
- DP16 - The total burden of physical inactivity: including mediated effects on chronic disease **Author:** Emily Bourke
- DP17 – Physical Activity is Associated with Improved Quality of Life in Multiple Sclerosis **Author:** Nupur Nag
- DP18 – Trajectories of unpaid labour and the probability of employment precarity among women **Author:** Jennifer Ervin
- DP19 – Mediation analysis with multiple mediators: a target trial approach **Author:** S Ghazaleh Dashti
- DP20 – Pandemic impact on admissions and readmissions among NSW congestive heart failure patients **Author:** Sadaf Marashi-Pour
- DP21 – Nutritional risks associated with restrictive diets in people living with multiple sclerosis **Author:** Karen Zozzak
- DP22 – Vitamin D testing in Queensland, Australia: 9-year follow-up of QSkin cohort **Author:** Vu tran
- DP23 – Developing Bayesian modelling methods for small area epidemiological measure estimates **Author:** Alex Xiao
- DP24 - Estimating health gains of achieving optimal BMI in Australia: a simulation study **Author:** Shweta Bohora
- DP25 – Socioeconomic inequality in combination HIV prevention services in Ethiopia: a population-based study **Author:** Aklilu Endalamaw
- DP26 – Comparing actual and modelled morality in the absence of influenza transmission **Author:** Jessie Goldsmith
- DP27 – The impact of COVID-19 on private pathology testing uptake in Australia **Author:** Melanie Keech
- DP28 – New & Pre-existing Diabetes in COVID-19: Comparing Socio-demographics, Clinical Features, & Outcomes **Author:** Nadira Kakoly
- DP29 – Active transport planning concept for diabetes self-management and weight reduction: Case report **Author:** Uba Nwose
- DP30 – Prevalence of complementary medicine use in young adults with mental health conditions **Author:** Xirun Yang
- DP31 – Association between residential greenness and diabetes risk in Indian adults **Author:** Gautam Saw
- DP32 – Thinking beyond data standards: Principles for working with ethnicity data in epidemiology **Author:** Rabia Khan
- DP33 - Association of Smoking Cessation with Subsequent Risk of Cancer **Author:** Eunjung Park
- DP34 - Engagement in an online educational lifestyle-related course for people with multiple sclerosis **Author:** Jeanette Reece
- DP35 – Indirect effects of rotavirus vaccination: a systematic review **Author:** Darren Suryawijaya Ong

Friday 20 October

TIME	SESSION	ROOM
7:30am - 5:00pm	Registration Open	Ballroom Foyer
Workshop		
8:00am - 9:00am	<p>Workshop 4 - You have the questions; the Generation Victoria cohorts may provide the answers - Collaborating with GenV and preparing to use the Open Science dataset.</p> <p>Presented By:</p> <ul style="list-style-type: none"> • Dr Susan Clifford Gen V and Me Lead, Gen V, Murdoch Children's Research Institute • Mr William Siero, Cohort Stream Lead, Gen V, Murdoch Children's Research Institute • Ms Suzanne Long, Trials Lead & Integrated Studies Lead Gen V, Murdoch Children's Research Institute • Mr Jatender Mohal, Data Lead Gen V, Murdoch Children's Research Institute • Professor Melissa Wake, Scientific Director GenV, Murdoch Children's Research Institute <p>For many epidemiologists, answering important health, social, educational and economic questions can be hampered by lack of access to contemporary, large and population-representative datasets of Australian children and adults.</p> <p>Generation Victoria (GenV, genv.org.au) is Australia's largest birth and mid-age cohort and the only mega-cohort mounted during the COVID-19 pandemic. It is both an observational and interventional cohort of children and mid-life adults. Like other internationally significant cohorts, GenV will provide an Open Science dataset for causal modelling analyses. GenV also offers collaborative opportunities to embed registries, trials, observational studies, measures and biosamples.</p>	Delacombe Room
Plenary Session 2 - Health across the life-course: solutions for healthier populations		
Chair:	Dr Steve Simpson-Yap, Senior Research Fellow, Centre for Epidemiology and Biostatistics, Melbourne School of Population & Global Health and Clinical Outcomes Research Unit (CORE), Royal Melbourne Hospital	
9:00am - 10:30am	<p>Using epidemiological evidence to reduce inequities over the first 2000 days of life Keynote Speaker: Professor Susan Morton, Director (INSIGHT), Research Institute for Innovative Solutions for Well-being and Health (INSIGHT) Faculty of Health, University of Technology Sydney</p> <p>Using evidence from the collected lives of the almost 7000 children and families involved in the Growing Up in New Zealand cohort study to move beyond "risk factorology" and understand "what works" in 21st century Aotearoa, New Zealand to promote child health and wellbeing.</p> <p>Countering the commercial determinants of health Keynote Speaker: Associate Professor Becky Freeman, Associate Professor, Faculty of Medicine and Health, The University of Sydney</p> <p>Becky will present how commercial actors influence our health and interfere with effective public health policymaking. She will draw from a range of "real-life" examples, including from her work in tobacco and vaping control.</p> <p>Power, profits and our children's health: the case of harmful industry marketing Keynote Speaker: Professor Kathryn Backholer, Professor of Population Health, Institute for Health Transformation, Deakin University</p> <p>This presentation will outline the influence of Big Business on health and well-being and how big data and AI techniques can be used to support regulatory approaches to protect our children.</p>	Grand Ballroom

TIME	SESSION				ROOM
10:30am - 11:00am	Morning Tea				Ballroom Foyer
11:00am - 12:30pm - Concurrent Session 3					
Time	3A – Lifestyle Room: Ballroom 1 Chairs: Steve Simpson-Yap & Grace Qu	3B – Infection/Injury 1 Room: Ballroom 2 Chairs: Fabian Kong & Shweta Bohora	3C - Maternal/Women's Room: LaTrobe Room Chairs: Kathryn Backholer & Isobel Todd	3D – Methods 1 Room: Delacombe Room Chairs: Fiona Stanaway & Jingyuan Liang	
11:00am - 12:30pm	Is the association between ethnicity and asthma modified by migration and diet? Speaker: Jonathan Pham	Effectiveness of the Community-delivered Integrated Malaria Elimination intervention: a stepped-wedge cluster-randomised trial Speaker: Paul Agius	Characteristics and outcomes of Hyperemesis Gravidarum for women and babies in NSW Speaker: Sarah Pont	Approaches to identify health disparities by ethnicity using Australian Census ancestry data Speaker: Fiona Stanaway	
	Association Between Egg Intake and All-Cause Mortality in Community-Dwelling Older Adults Speaker: Holly Wild	Efficacy, safety and tolerability of primaquine in paediatric patients: an IPD meta-analysis Speaker: Julie Simpson	Labour interventions patterns and associated biopsychosocial factors: path analysis of cohort study Speaker: Habtamu Mellie Bizuayehu	Housing insecurity and health: causally focussed analyses of UK household panel data Speaker: Kate Mason	
	Walking for transport and development of persistent physical disability in older adults Speaker: Shivangi Shah	Burden of disease and injury in Australia in 2022 Speaker: Julianne Garcia & Michelle Gourley	Preeclampsia and offspring blood pressure: a multilevel multivariate meta-analysis Speaker: Rebecca Harris	Methodology for systematic identification and analysis of multiple biases in causal inference Speaker: Rushani Wijesuriya	
	Ultra-Processed Food Consumption and Overall Respiratory Diseases, COPD and Lung Cancer Mortality Speaker: Tefera Mekonnen	Mountains to coast, 20 years of notifiable diseases trends in Gippsland, Victoria Speaker: Katherine Walker	Health-Related Quality of Life: A Comparison of Mothers and Women without children Speaker: Chuyao Jin	Co-research with young people with disability: Implications and impact Speaker: Stefanie Dimov	

Friday 20 October

TIME	SESSION			
11:00am - 12:30pm - Concurrent Session 3 - <i>continued</i>				
Time	3A – Lifestyle Room: Ballroom 1 Chairs: Steve Simpson-Yap & Grace Qu	3B – Infection/Injury 1 Room: Ballroom 2 Chairs: Fabian Kong & Shweta Bohora	3C - Maternal/Women's Room: LaTrobe Room Chairs: Kathryn Backholer & Isobel Todd	3D – Methods 1 Room: Delacombe Room Chairs: Fiona Stanaway & Jingyuan Liang
11:00am - 12:30pm	Alcohol consumption and cause-specific mortality in an Australian cohort of 180,575 participants Speaker: Peter Sarich	The effect of host immunity on parasite clearance for Plasmodium knowlesi Speaker: Jeyamalar Rathnam	Maternal prenatal and perinatal psychiatric hospitalizations and academic performance in adolescent offspring Speaker: Getinet Ayano	Handling missing data in causal inference: Recoverability, estimation and implications for practice Speaker: Jiaxin Zhang
	Modelling the health impact of an equity-focused 2030 Tobacco Endgame in Australia Speaker: Samantha Howe	The role of economic evaluation in modelling non-pharmaceutical interventions for pandemic policy Speaker: Shania Rossiter	Early natural menopause and risk of incident type 2 diabetes mellitus Speaker: Hsin-Fang Chung	Automated Generation of Disease Parameters for Intervention Modelling Speaker: Tim Wilson
	The association between physical activity and frailty in community-dwelling older adults Speaker: Yang Chen	Self-controlled case studies find influenza and varicella associated with increased iGAS incidence Speaker: Jessie Goldsmith	Understanding the changing burden of maternal and neonatal disorders in Nepal Speaker: Pramila Rai	Handling missing data in randomised controlled trials: a methodological scoping review Speaker: Ellie Medcalf
	Impact of lifetime body mass index trajectories on obstructive sleep apnoea Speaker: Yaoyao Qian	Epidemiologic and economic modelling of optimal COVID-19 policy in Victoria, Australia Speaker: Joshua Szanyi	Is childlessness associated with the risk of overweight and obesity in women? Speaker: Chuyao Jin	Evaluating the validity COVID-19 vaccine effectiveness estimates from case test-negative studies Speaker: Sheena Sullivan
		Mapping zero-dose children in East New Britain, Papua New Guinea Speaker: Stefanie Vaccher		Maximising the Impact of Epidemiological Research: considerations in variable categorisation Speaker: Rosanne Freak-Poli

TIME	SESSION	
11:00am - 12:30pm - Concurrent Session 3 - <i>continued</i>		
3E - Conversation Starters Room: Ballroom 3 Chairs: Mark Jenkins & Najmeh Davoodian		
11:00am - 12:30pm	<ol style="list-style-type: none"> 1. Developing an index to capture overall price reductions across supermarkets Speaker: Helena Romaniuk 2. Estimating optimal time to treatment to improve colorectal cancer outcomes: linked-data study Speaker: Allison Drosdowsky 3. Within-pair comparisons are better, not "biased", especially for studying sex and gender Speaker: John Hopper 4. Association between congenital heart disease and attention deficit hyperactivity disorder: data-linkage study Speaker: Samantha Lain 5. The Problem of Prevalent User Designs in Observational Dementia Studies Speaker: Lachlan Cribb 6. Suicide mortality of Australian migrants between 2006-2019 – An intersectionality approach Speaker: Humaira Maheen 7. Global antimicrobial-resistance drivers: an ecological country-level study at the human-animal interface Speaker: Kasim Allel 8. Bringing human intelligence to application of Artificial Intelligence in epidemiology Speaker: John Hopper & Joohon Sung 9. Essential Components for Tobacco Control Legislation in Alignment with the Global Guidelines Speaker: Hae-ryoung Chun 10. Trends in the Youth Justice population overtime in South Australia Speaker: Stephanie Byrne 11. p-value is a Poor Measure of Evidence Strength in Multiple Sclerosis Research Speaker: Charles Malpas 	<ol style="list-style-type: none"> 12. Prognostics factors for regression from prediabetes to normoglycaemia: Individual participant data meta-analysis Speaker: Najmeh Davoodian 13. Methodological considerations in early diagnosis of colorectal cancer research and dose-response meta-analysis Speaker: Allison Drosdowsky 14. Stillbirth in the remote of NT: A retrospective cohort of births (1986-2017) Speaker: Sunil Bhat 15. Mental health of Chinese international students: A systematic review Speaker: Peixin Zuo 16. Weight training and risk of all-cause, cardiovascular disease and cancer mortality Speaker: Terry Boyle 17. Causation between body size measures Over Time: Implications for timing of prevention Speaker: Alexander Campbell 18. The COVID-19 pandemic and paediatric mental health hospitalisations in Australia Speaker: Nan Hu & Jahidur Rahman Khan 19. The Alberta Moving Beyond Breast Cancer Study: assessment completion at follow-up timepoints Speaker: Jeff Vallance 20. Blood levels of polyunsaturated fatty acids and disease progression of multiple sclerosis Speaker: Xiaochen Qu 21. Inequalities in premature mortality from comorbidity clusters: Analysis of Australian Census-linked data Speaker: Tim Adair

Friday 20 October

TIME	SESSION				ROOM
12:30am - 1:30pm	Lunch				Ballroom Foyer
12.15pm - 12.45pm	PPE-SIG Meeting				La Trobe Room
1:30pm - 3:00pm - Concurrent Session 4					
Time	4A – Environmental health Room: Ballroom 1 Chairs: Brette Toelle & Yuxi Li	4B – Infection/Injury 2 Room: LaTrobe Room Chairs: Andrea Parisi & Sam Hogan	4C –Mental Health Room: Ballroom 3 Chairs: Melissa Russell & Yaqi Lin	4D – Methods 2 Room: Delacombe Room Chairs: Bircan Erbas & Lachlan Cribb	
1:30pm - 3:00pm	Respiratory symptoms after the Hazelwood coalmine fire and pandemic: a longitudinal analysis Speaker: Tyler Lane	Effect of vitamin D supplementation on risk of fracture Speaker: Mary Waterhouse	Contributions of causation and familial factors to longitudinal associations of wellbeing Speaker: Vivienne Esser	Cutting-edge methods to reduce biases from epidemiological research using routinely collected data Speaker: Muideen Olaiya	
	Snakebite envenoming: A systematic review and meta-analysis of global morbidity and mortality Speaker: Afsana Afroz, Timothy NW Jackson & Andrew D Watt	Long COVID: Persistence of symptoms six-months after SARS-CoV-2 infection in Western Australia Speaker: Mulu Woldegiorgis	Gendered associations between unpaid labour domains and mental health in working-age adults Speaker: Jennifer Ervin	Best of Both Worlds? Simultaneous algorithm development via machine-learning and expert-led approaches Speaker: Taya Collyer	
	Housing as a Health Intervention for Asthma Speaker: Adelle Mansour	Investigation of emerging endemic areas for Buruli ulcer in urban Geelong, Australia Speaker: Bridgette McNamara	Impacts of caring on mental health in a national cohort of men Speaker: Tania King	Causal machine learning methods to tackle high-dimensional confounding in modern observational studies Speaker: Susan Ellul	
	Mortality impacts of NO2 emissions controls in Melbourne, Australia Speaker: Timothy Chaston	Impact of pneumococcal conjugate vaccine introduction on pneumonia in children in Mongolia Speaker: Claire Von Mollendorf	Trends in mental health inequalities for people with disability, 2003 to 2020 Speaker: Glenda Bishop	Medication Adherence Mayhem: Overcoming Measurement Issues with Pharmaceutical Dispensing Data Speaker: Monique Kilkenny	

TIME	SESSION			ROOM
1:30pm - 3:00pm - Concurrent Session 4 - <i>continued</i>				
Time	4A – Environmental health Room: Ballroom 1 Chairs: Brette Toelle & Yuxi Li	4B – Infection/Injury 2 Room: LaTrobe Room Chairs: Andrea Parisi & Sam Hogan	4C –Mental Health Room: Ballroom 3 Chairs: Melissa Russell & Yaqi Lin	4D – Methods 2 Room: Delacombe Room Chairs: Bircan Erbas & Lachlan Cribb
1:30pm - 3:00pm	Global daily ambient PM2.5 population exposure estimation: A machine learning modeling study Speaker: Wenhua Yu	Vitamin D supplementation and antibiotic use among older Australian adults Speaker: Hai Pham	Prevalence of sleep duration and sleep medication use in Australian adults Speaker: Joshua Way	A framework for Epidemiologist in the Application of Simulation to Quantify Bias Speaker: Jennifer Dunne
	Somatic symptoms, psychological distress and trauma after disasters Speaker: Tyler Lane	Excess deaths from pneumonia indicative of early underdiagnosed COVID-19 deaths in Australia Speaker: Catherine Bennett	Moderate alcohol consumption and late-life depression: A causal Inference Speaker: Mohammadreza Mohebibi	G-computation in practice: a new diagnostic tool to guide outcome model specification Speaker: Daisy Shepherd
	Associations between air pollution with eczema and food allergy in early life Speaker: Diego Lopez	Automated reporting to communicate regional effects of primaquine dose for vivax malaria Speaker: Peta Edler	Gendered effects of adolescent care on mental health Speaker: Ludmila Fleitas Alfonso	Worldwide data availabilities and gaps in studying healthy ageing and its inequities Speaker: Saman Khalatbari-Soltani
	Breathe Melbourne Citizen Science Project: Understanding air pollution on children’s school commute Speaker: Mallery Crowe	Protective and risk factors for Buruli ulcer in South-Eastern Australia Speaker: Bridgette McNamara	Persistent low job control and subsequent major depression over time Speaker: Yamna Taouk	Establishing a geographic linked data cohort for epidemiological research Speaker: Nadine Andrew
		Intersectionality inequity in combination HIV prevention services in Ethiopia Speaker: Aklilu Endallamaw	Impact of mental disorders on unplanned readmissions of congestive heart failure patients Speaker: Zhisheng Sa	High-dimensional Mediation Analysis Using Machine Learning Speaker: Tong Chen
		Disability, employment, and mental health among young adults: a causal mediation analysis Speaker: Marissa Shields		

Friday 20 October

TIME	SESSION
1:30pm - 3:00pm - Concurrent Session 4 - <i>continued</i>	
4E - Conversation Starters Room: Ballroom 2 Chairs: Rob Moss & Jiaxin Zhang	
1:30pm - 3:00pm	<ol style="list-style-type: none"> 1. An exploration of geographic distribution of alcohol outlets Speaker: Jennifer Kerrigan 2. The Target Trial Framework: Applying principles of causal inference to observational data Speaker: Nadine Andrew 3. Changes in tuberculosis risk profiles among foreign-born people in Quebec, Canada Speaker: Tanya Diefenbach-Elstob 4. The efficacy of diabetes self-management in low- and middle-income countries: A meta-analysis Speaker: Hasina Akhter Chowdhury 5. Modelling options to prevent occupational hearing loss Speaker: Lin Fritschi 6. Suicidal and self-harming behaviours among young carers Speaker: Tania King 7. Distinct trajectories of adult transport-related physical activity (TRPA) independent of childhood TRPA Speaker: Jack Evans 8. The causal effect of tooth loss on bullying in adolescents Speaker: Ankur Singh 9. Applications and reporting of causal methods in infectious studies: A Systematic Review Speaker: Yukiko Ezure 10. Independent and additive healthy lifestyle behaviours and health outcomes in multiple sclerosis Speaker: Nupur Nag 11. Mode of birth and childhood infections: a systematic review of observational studies Speaker: Isobel Todd 12. Bayesian spatio-temporal modelling of child anemia in Ethiopia using Conditional Autoregressive Model Speaker: Zemenu Tadesse Tessema 13. Factors associated with high antibiotics-use among New Zealand children: A linkage study Speaker: Sharan Ram 14. Impact of secondhand smoke on air quality in partially enclosed hospitality venues Speaker: Michael Tong 15. Methods for evaluating and comparing breast cancer risk assessment tools Speaker: Louiza Velentzis 16. Subsequent Primary Cancer Risks for Colorectal Cancer Survivors: Systematic Review and Meta-Analysis Speaker: Ye Kyaw Aung 17. Associations of maternal smoking during Pregnancy with academic performance in adolescent offspring Speaker: Getinet Ayano 18. Knowledge and awareness regarding snakebite envenoming and management: systematic review and meta-analysis Speaker: Afsana Afroz, Timothy N. W. Jackson & Andrew D. Watt 19. Psychosocial impacts of COVID-19 on Australia-based West Africans who survived Ebola epidemic Speaker: Sulaiman Lansana Mandoh

TIME	SESSION	ROOM
3:00pm - 3:30pm	Afternoon Tea	Ballroom Foyer
Closing Plenary Session - How well is epidemiology serving the needs of First Nations Peoples?		
Moderator:	Professor Joan Cunningham - Senior Principal Research Fellow, Menzies School of Health Research	
3:30pm - 4:45pm	<p>Panel Discussion</p> <p>Panellist: Professor Sandra Eades, Professor at the Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, The University of Melbourne</p> <p>Panellist: Professor James Ward, Director, UQ Poche Centre for Indigenous Health, UQ Poche Centre for Indigenous Health</p> <p>Panellist: Prof Fiona Stanley AC, Founding Director & Patron, Telethon Kids Institute</p> <p>Panellist: Professor Catherine Chamberlain, Head, Indigenous Health Equity Unit, Melbourne School of Population and Global Health, The University of Melbourne</p>	Grand Ballroom
Conference Close		
Chair:	Dr Abbey Diaz, Vice President, Australasian Epidemiological Association	
4:45pm - 5:00pm	Conference Close	Grand Ballroom



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