Australian Public Health Conference 2024

High value public health in a complex world
17 - 19 September 2024, Perth

ABSTRACT BOOK

Acceptance, Perceptions, Attitudes of Medical Students and Population on COVID-19's and Vaccination

Dr Henoch Ciswaka[1], Dr Ida Kosia[2], Dr Fils Hyute[1], Dr David Bayenga[2], Dr Bless Lukeboka[1], Dr Ben Ngubuta[1,2], John Kabamba[1,2], Dr Philippe Masidi[1,3], Dr Michael Bojabwa[1,4], Dr Roger Kabuya[1,5]
[1]Star Research Group, Academy of Sciences and Engineering for Africa Development, Kinshasa, Congo (the Democratic Republic of the), [2]Department of Biomedical Sciences, Faculty of Medicine, University of Kinshasa, Kinshasa, Congo (République démocratique du), [3]Department of Pediatrics, University Clinics of Kinshasa, Faculty of Medicine, University of Kinshasa, Kinshasa, Congo (République démocratique du), [4]Department of Tropical Medicine, Faculty of Medicine, University of Kinshasa, Kinshasa, Congo (République démocratique du), [5]Ottawa Newcomer Health Centre, Somerset West Community Health Centre, Ontario, Canada

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Context & aim: COVID-19 has spread worldwide, affecting all continents and impacting several sectors of society. In the DRC, poor barriers to adherence and low vaccination coverage were some of the challenges faced during COVID-19. This study aimed to evaluate and compare the acceptance, perceptions, and attitudes towards the existence of COVID-19 and the vaccine between medical students and the general population.
Methods: An on-site cross-sectional survey was conducted in late 2021 among medical students and the general population of Kinshasa. A 23-item questionnaire was administered to participants for convenience sampling. The questionnaire focused on sociodemographic data, perceptions, and attitudes towards COVID-19 and vaccine acceptance. Mann-Whitney U and Pearson chi-square tests were used to determine associations between different variables, and logistic regression was used to determine the predictors of vaccine acceptance.
Outcomes: Of the 439 respondents, 223 (50.8%) were medical students and 181 (41.2%) were female. The median patient age was 23 years. Overall, perceptions and attitudes were better among the medical students. The acceptance rate of the free vaccine was 51.5%, higher among medical students ($p<0.01$). However, 6.8% of the population reported having received the vaccine. Believing that the vaccine is beneficial (OR=4.4), accepting that the vaccine is compulsory (OR=4.0), and believing that the existence of COVID-19 in the DRC (OR=3.1) was the most associated with vaccine acceptance.
Future actions: Awareness-raising actions, medical education, and access to information play crucial roles in managing health crises. More effective strategies are a priority for strengthening community engagement and adherence to health measures.
Key Words: COVID-19, vaccine acceptance, perceptions, attitudes, medical students, DR Congo.

Integrated cervical cancer screening uptake and associated factors among women in Ethiopia.

Mrs Rahel Kassa[1,2], Professor Kassahun Alemu[3], Professor Akinyinka Omigbodun[4]
[1]St. Paul's Hospital Millennium Medical College , Addis Ababa, Ethiopia, [2]Pan African University Life and Earth Sciences Institute (including Health and Agriculture), University of Ibadan, Ibadan, Nigeria , [3]Institute of Public Health, College of Medicine and Health Sciences, University of Gondar, Gondar , Ethiopia, [4]College of Medicine, University of Ibadan, University College Hospital, Ibadan, Nigeria

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Background: Cervical cancer is the fourth most common cancer in women worldwide, with an estimated 604,000 new cases in 2020. It is a significant health issue in Ethiopia, where there are high prevalence and low cervical cancer screening (CCS) rates. Integrated healthcare approaches have been suggested, by the World Health Organization and national guidelines, as a way to increase access to and utilization of screening services. However, there is limited information on integrated CCS uptake at the primary care level, particularly in health centers where most women access healthcare. Hence, the objective of this study was to determine integrated CCS uptake and associated factors among age-eligible women attending primary care services at health centers in Addis Ababa, Ethiopia.
Methods: A multi-centered cross-sectional study design was conducted among 1,246 women in Addis Ababa, Ethiopia. A multi-stage sampling technique was used to reach the study participants. Face-to-face interviews were conducted using a structured, pre-tested questionnaire. Associations between dependent and independent variables were tested by logistic regression with Stata MP/17.0 software, using adjusted odds ratios (AOR) and 95% confidence intervals (CI). The statistical significance was declared at a p-value of less than 0.05.
Result: Only 15.7% (95% CI 13.7-17.8) of women utilized the CCS that was integrated into the primary care services that they initially sought. Being single (AOR: 4.25; CI: 2.23-8.10), divorced (AOR: 2.35; CI: 1.02-5.45), attending college and above (AOR: 5.2; CI: 1.94-13.91), being in the richest wealth index (AOR: 2.83; CI: 1.46-5.47), husband's sexual behavior (AOR: 6.8; CI: 4.04-11.54), having a favorable attitude towards CCS (AOR: 2.1; CI: 1.40-5.35), and visiting post-natal clinic (AOR: 6.19; CI: 1.74-22) were strongly associated with utilization of CCS services, while preference of a specific gender of health care provider (AOR: 0.04; CI: 0.02-0.13) was associated with non-utilization of CCS.
Conclusion: The study found low integrated CCS uptake among women in Addis Ababa, influenced by factors like marital status, education, wealth, husband's sexual behavior, attitude towards CCS, post-natal clinic visits, and preferred gender of healthcare providers. Taking these factors into consideration by stakeholders could promote CCS utilization.

Ethical decision making in disaster and emergency management

Dr Joseph Cuthbertson[1], Dr Greg Penney
[1]Monash University, Melbourne, Australia, [2]World Association Disaster and Emergency Medicine, , United States of America

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre,
September 18, 2024, 9:00 AM - 10:30 AM

- What is the problem/issue that requires public health action? [Context and aim]

Decisions made by leadership in disasters and emergencies must uphold public confidence and trust particularly in settings where resources are scarce or when decisions are perceived as unjust. Decisions that are perceived to be, or are unethical may erode public trust, result in moral injury to staff, and cause community division.

- What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]

To understand how decisions in disasters and emergencies are informed by ethics, a systematic literature review was conducted to determine what ethical guidance informs decision making in disaster and emergency. This study found evidence of ethical guidance to inform decision making in management in the humanitarian system, based on humanitarian principles. Evidence of the application of an ethical framework to guide or reference decision making was varied or absent in other emergency management agencies or systems.

- How has this been used in practice? [Translational outcomes]

This research has been published open access to inform disaster management policy makers and planners.

- What actions should we take in the future to address the problem/issue? [Future actions]

Development and validation of ethical frameworks to support decision making in disaster management practice is recommended.

8

Health by stealth: working across government for prevention

Dr Denise Sullivan[1], Ms Margaret Winstanley[1], Ms Lauren Humphreys[1]
[1]WA Department of Health, East Perth, Australia

5D - Prioritising public health strategies in Australia, Hamersley, September 19, 2024, 1:15 PM - 2:45 PM

What is the problem/issue that requires public health action?

Prevention has many health, social, environmental and economic co-benefits. State and national frameworks and strategies call for cross-sector partnerships to address the social determinants of health. In an environment where growth in investment in prevention has stagnated, public sector organisations must avoid ‘working in silos’ and prioritise identifying shared goals, and pooling skills and resources to advance the preventive health agenda.

What do we know or have we learned to address this problem/issue, and how has this finding been derived?

The WA Department of Health has met informally with WA public sector agencies since 2011, to identify intersecting policy agendas, and map complementary strategies, policies and initiatives for prevention of chronic disease and injury.

Other agency’s initial concerns that health already accounts for over one-third of the state budget and dominates government priorities contributed to hesitancy to meet. We overcame this by reassuring agencies we came with ‘no asks or demands’, and offered to lend a supportive voice for their initiatives where they intersected with those of health, and act as a system navigator for agencies needing to collaborate with health. This led to ongoing discussions about opportunities for mutually beneficial engagement.

In 2023, the findings from this project were shared publicly for the first time. The report documents substantial areas of shared interest across government in WA. 380 common strategies, policies and initiatives from 23 agencies were mapped across healthy and safe settings, healthy people and communities, healthy food and drinks, and healthy recreation.

How has this been used in practice?

The report provides a strong foundation for cross-government collaboration on actions for prevention and opportunities for further engagement. We have forged valuable connections, leading to trusting and productive partnerships and co-benefits for other agencies. Prevention has been further embedded in WA Government policy.

What actions should we take in the future to address the problem/issue?

A non-prescriptive, co-benefits approach to building cross-sector collaboration for healthy policies in government settings works in WA. A co-benefits approach to collaboration could have broader application in building public health coalitions beyond government.

Lessons learned collecting data of families’ lived experiences of growth area neighbourhoods

Dr Karen Villanueva[1], Dr Amanda Alderton, A/Prof Melanie Davern, Prof Sally Brinkman, Prof Lise Gauvin, Prof Sharon Goldfeld, Prof Hannah Badland
[1]RMIT University, 124 LaTrobe Street, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Children who are exposed to positive, stimulating environments in their first eight years of life experience optimal foundations for their ongoing development. The neighbourhoods in which young children live and interact has received increasing attention in Australian and global policy agendas and initiatives. With cities rapidly expanding, families with young children are increasingly moving to suburban neighbourhoods, such as those in Melbourne’s growth areas. But these neighbourhoods may be less supportive of children’s development because of less infrastructure and fewer services compared with inner-city neighbourhoods. Understanding which and how neighbourhood features contribute to equitable early childhood development across different geographic contexts, is needed to inform place-based interventions and urban planning guidelines or plans.

The Early Data to Decisions Project is a mixed methods study aimed at identifying what makes a child-friendly neighbourhood and which specific built environment features support optimal early child development in different neighbourhood settings. In 2023-24, we used an online mapping activity using Public Participation GIS (PPGIS) software and semi-structured interviews to understand lived experiences of parents and their young children (4-8 years) living in 2 inner city and 2 growth areas in Melbourne. We sought to understand their lived experiences of their neighbourhoods, and the aspects of their neighbourhoods that they feel are important to their development, mental health and wellbeing. PPGIS is a map-based survey method that allows spatially referenced perceptions and experiences of the environment. Participants were asked to mark on a map places they usually visit, those that are important to them, and answered questions about each place. To our knowledge, this is the first time PPGIS mapping techniques were used with pre-school aged children and their parents.

This presentation will outline preliminary parent-child dyad findings while highlighting lessons learned from the field in recruiting participants, conducting PPGIS mapping techniques and interviews with preschool-aged children, and analysis and translation of PPGIS data. We will offer recommendations for addressing the practicalities of applying PPGIS methods with this age group. The findings will also be used to inform the development of objectively-created neighbourhood indicators for policy and practice. This project was funded by VicHealth.

Integrated Approaches of Occupational Health and Safety and Worksite Health Promotion

Mr Yanming Lu[1], Associate Professor Nektarios Karanikas[1], Dr Julie-Anne Carroll[1]
[1]Queensland University of Technology, Kelvin Grove, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem/issue that requires public health action? [Context and aim]
Growing evidence supports the integration of occupational health and safety and worksite health promotion. However, the triggers and the methods for planning and implementing such integrated approaches remain vastly unclear.

What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]
This scoping review aimed to fill this gap by searching 43 databases (e.g. PubMed, Web of Science Core Collection, all EBSCOhost databases, MEDLINE, Scopus, Embase). Of the 7142 results identified initially, systematic screening led to 13 articles meeting the objectives of this review. Of the 13 articles, five were about physical activity interventions, with a focus on modifying behavioural and environmental risk factors of physical inactivity. Ten articles first set specific work-related issues to be addressed, including physical inactivity, sleep problems, neck pain, and musculoskeletal pain. Only five articles pointed to the necessity of understanding the influences of pre-existing knowledge in the interventions of integrated approaches and the heterogeneity of mental perceptions in workers, indicating that a comprehensive needs assessment of workers is not widely applied. Five articles acknowledged that tailoring and flexibility of integrated approaches were key success factors, and nine articles reported the benefits of utilising online platforms to implement integrated approaches. Last, three articles highlighted that intervention sustainability should be further improved.

How has this been used in practice? [Translational outcomes]
Future integrated interventions should consider not only tailoring, flexibility, and delivery modality, but also the appropriate level of outcome changes to suit the actual needs of workers. Identification of work-related issues regarding the target workers could be a useful starting point when planning integrated approaches.

What actions should we take in the future to address the problem/issue? [Future actions]
Further research is required on work-related issues other than physical activity, with an in-depth and thorough exploration of workplace contexts warranted. Intervention researchers and practitioners should consider more consistently how to enhance intervention sustainability and scalability, particularly at the early stages of intervention development. A comprehensive needs assessment in workers is warranted.

Factors influencing the early introduction of sugar sweetened beverages among Sydney infants

Dr Vanessa Irvine[1], Dr Amit Arora[2]
[1]Liverpool Hospital, Nsw Health, Liverpool , Australia, [2]Western Sydney University , Sydney, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Obesity has become an increasingly common risk factor for several chronic conditions and presents a significant burden to healthcare systems in Australia and worldwide. In Australia, obesity contributed toward 8.4% of the total disease burden attributed to weight-related conditions with recent findings showing that one in four children and adolescents (25%) were obese or overweight as in 2017-18. Obesity is influenced by several socioeconomic, biological, behavioural and lifestyle factors, thereby contributing to the complexity of the condition.

This study explores the relationship between family and infant characteristics and the early introduction of sugar sweetened beverages (SSBs) among infants in Sydney, Australia. Mothers-infant dyads from an ongoing birth cohort study were interviewed at 8, 17, 34, and 52 weeks postpartum. Multivariable logistic regression was used to identify family and infant factors independently associated with the likelihood of early introduction of SSBs (<52 weeks of age). Of the 934 mother-infant dyads interviewed, 53.5% of infants were introduced SSBs before 52 weeks. The likelihood of introducing SSBs by single mothers was almost double than that of married women. Mothers from high socioeconomic backgrounds were 51.3% less likely to introduce SSBs than mothers in other disadvantage categories. Chinese-born mothers had 54.3% lower odds of introducing SSBs than Australian mothers. Infants who were introduced solids ≥ 17 weeks were 41.4% less likely to be introduce SSBs compared to those who consumed earlier than 17 weeks. Given the long term impact that infant nutrition has, tailoring health promotion programs for these vulnerable groups may delay SSB introduction to the recommended time and improve overall childhood health.

Social and health factors influence landscape fire relocation intentions in Tasmania, Australia

Dr Sharon Campbell[1], Dr Grant Williamson[2], Prof Fay Johnston[1], Prof David Bowman[2]
[1]Menzies Institute for Medical Research, University of Tasmania, Hobart, Australia, [2]Fire Centre, University of Tasmania, Hobart, Australia

3B - Public health systems and transitioning environments, Golden Ballroom Centre, September 18, 2024, 11:00 AM - 12:30 PM

Landscape fires are increasing in frequency and intensity globally, as the result of a changing climate. An increasing number of people, especially those living at the interface between populated urban settlements and fire-prone vegetation, are exposed to fire disasters. Relocation, evacuation and adaptation strategies are therefore becoming a pressing issue for local, regional and national governments and at-risk communities, resulting in individuals being required to make plans in response to the threat of landscape fires. These personal decisions regarding if and when to relocate to a safer place in response to the threat of fire have multiple social and cultural influences; however, little is understood about the role of an individual's health status in shaping these decisions. In this study, we investigate associations between self-reported sociodemographic and health-related variables and landscape fire relocation intentions in Tasmania, Australia. Using data collected in the 2016 Tasmanian Population Health Survey, we implemented logistic regression modelling to characterise associations between variables, including overall health status, presence of a chronic medical condition, age group, gender, educational attainment, employment status, financial security, and intention to leave during a landscape fire threat. Reporting an intention to leave was more than three times higher among women than men. It was also significantly higher for people with higher versus lower educational attainment, and in those diagnosed with depression/anxiety, compared to those without. When stratified by gender, associations with chronic conditions, asthma and higher educational attainment were observed in men, while the association with anxiety/depression was elevated for women, without reaching statistical significance. Our research findings have been shared with the Tasmania Fire Service, who have carriage of local landscape fire-related safety messaging. To most effectively target safety messages, it is imperative that social, demographic and health differences can be considered in planning communication and messaging to residents in fire-prone areas.

Bowel cancer screening and awareness community education co-designed in remote Tasmania.

Miss Nicola Gadd[1], Dr Simone Lee[1], Ms Jessica Hughes[1], Dr Matthew Sharman[1], Dr Ha Hoang[1], Mrs Kerry Turnbull[2], A/Prof Kehinde Obamiro[1,3]
[1]University of Tasmania, Hobart, Australia, [2]Tasmanian Collaboration for Health Improvement, Hobart, Australia, [3]James Cook University, Emerald, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

Background: Bowel cancer screening is key for timely diagnosis to improve patient outcomes. Although, currently, the National Bowel Cancer Screening Program rates in Tasmania are low and recently decreased from 48.9% (2019-20) to 44.4% (2020-21).
Aim: To co-design a bowel cancer awareness and screening education strategy with a remote Tasmanian community for rural/remote Tasmanians.
Method: Semi-structured interviews and two co-design group workshops were conducted with a remote Tasmanian community. Initially, sixteen community members were interviewed, to identify barriers and enablers to seeking bowel cancer information, awareness, and screening in rural/remote Tasmania. Findings informed the group workshops. To co-design the education strategies with local relevance, two group workshops were run with 14 community members and three local healthcare providers.
The Tasmanian Collaboration for Health Improvement and Cancer Voices Australia assisted researchers to involve consumers with lived experiences of bowel cancer and screening. Five consumers reviewed the interview guide and content for workshop one, for plain language and relevance. Researchers connected with Population Screening and Cancer Prevention Tasmania and discussed potential collaboration in the education strategy implementation phase for rural/remote Tasmanians.
Results: Two multi-component education strategies were developed through the workshops; community education events and a local media campaign. Both components should run alongside one another twice a year, to align with other rural health screening programs e.g., BreastScreen bus. Strategies should be locally designed and tailored to and by the community, to remain as intended. Eight community members stayed involved in this study to develop the components designed in the workshops. Once the education is fully developed, it will be piloted in two rural/remote communities. Researchers intend to collaborate with established networks to expand the education across rural Tasmania.
Future actions: This study showed stakeholder collaborations throughout the study is vital for successful research outcomes. Consumer involvement in the research methods ensured participants understood the research topic. Involving the study target group (community members) and key stakeholders (healthcare providers) as participants in the co-design phase ensured optimal engagement and enthusiasm, within the design, development, and future implementation of the education strategies.

Building community capacity to manage bushfires and health: An online short course

Dr Sharon Campbell[1], Mr James Brady[2], Dr Carina Anderson[3], Dr Myriam Ziou[1], Dr Duncan Sinclair[2], Prof Fay Johnston[1], Dr Penelope Jones[1]
[1]Menzies Institute for Medical Research, University of Tasmania, Hobart, Australia, [2]Wicking Dementia Research and Education Centre, University of Tasmania, Hobart, Australia, [3]School of Nursing and Midwifery, Faculty of Health, Engineering and Sciences University of Southern Queensland, Ipswich, Australia

3B - Public health systems and transitioning environments, Golden Ballroom Centre, September 18, 2024, 11:00 AM - 12:30 PM

Bushfires and bushfire smoke pose substantial risks to the physical and mental health of exposed populations, especially in identified high-risk groups. Enhanced community-level knowledge and response capability may promote exposure reduction and protect health. However, few interventions exist to achieve this goal. We developed a free online short course, 'Bushfires and Your Health', and piloted it with older adults as an at-risk group.

In our pilot, we used a participant (intervention) group and a control group (who did not undertake the course), evaluating factors associated with course enrolment and completion, course satisfaction, level of understanding, the likelihood of increased bushfire knowledge, and the likelihood of participants undertaking risk-mitigating and health-promoting actions. We (1) used a pre- post-course survey in both the intervention group and control group; (2) used a post-course completion feedback survey in the intervention group only; and (3) analysed discussion board submissions from course participants for evidence of course-related behaviour change. Participants reported high rates of course satisfaction and understanding. Course enrolment was significantly and positively associated with several demographic characteristics, including being retired, living near bushland and having a bushfire survival plan. Course completion was associated with an increase in bushfire knowledge, and with participants undertaking new actions, including downloading and using an air quality app, developing a bushfire survival plan and making preparations around the home. Participant feedback noted beneficial behaviour change intention, for example "This course has definitely convinced me to leave early and not try to be a martyr."

Based on this pilot, we offered free community-wide courses over the 2022-23 and 2023-24 summer seasons. To date, over 1000 people have enrolled in the course. In 2023, critical material from this course was translated into languages commonly spoken by those most recently arrived into Tasmania (Nepali, Farsi, Arabic, Karen, Oromo and Tigrinya). This material is used to assist newly arrived migrants to become familiar with the bushfire risks inherent in Tasmania.

Free delivery of this course is funded until 2026 and offers a model of how well-designed online education can successfully build community health capacity to adapt to a changing climate.

Codesigning and implementing a social media risk information campaign with land managers

Mr Samuel Cornell[1]
[1]UNSW Sydney, Sydney, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim

Social media-related injuries and deaths are a global public health issue, particularly in and around aquatic locations. Much research has focussed on the ill effects of social media use on mental health, but accidents and other physical harms attributable to social media have been underexplored. The aim of this study was to codesign a risk communication campaign on Instagram with Queensland National Park and Wildlife Service, capitalising on our social media user surveys (n=509) and Influencer interviews (n=18), and evaluate its implementation via in person surveys at a national park location, alongside social media metrics.

Methods and analysis

The survey comprised predominately closed-ended questions about respondents' use of social media, including if they used social media to find the national park location, whether they saw the risk communication campaign on Instagram, if the campaign changed their motivations to visit or to engage in risky behaviour at the location and demographic variables. Surveys were analysed via descriptive statistics and content analysis. Additionally, social media metrics were collected to understand the reach and impact of the social media campaign, including impressions, views, reach, and ad recall.

Translational outcomes

The campaign reached 1.1 million social media users, with 83.8 thousand engagements and 1.9 million impressions, 254 total saves of the posts, and 4 thousand link clicks which took users to landing pages which presented more risk information. Surveys revealed most users wished to receive risk information authorities (national parks) and found messaging most credible from authorities, and family and friends. Influencers were seen as potentially trustworthy but depending on their credibility and authenticity.

Future actions

Future research should seek to ascertain if engaging and collaborating with travel and tourism influencers is effective in delivering risk communication messages to social media users who visit aquatic locations where risky behaviour takes place. Influencers may be effective in communicating with social media users around health and safety behaviours in a more authentic manner that resonates with this demographic. Our results also suggest that social media users wish to see authorities communicate with them more frequently via social media.

Impact of overwork and underwork on sleep quality in working Australian population.

Dr Tinh Doan[1], Associate Prof Dr Liana Leach[1], Professor Lyndall Strazdins[1]
[1]Australian National University, Acton, Australia

5C - Population health and equity, Golden Ballroom South, September 19, 2024, 1:15 PM - 2:45 PM

Background

Poor sleep is well evidenced to be associated with poor health outcomes. Long workhours can adversely affect sleep quality and in turn poor sleep also affects ability to work longer hours. Further, short workhours may be associated with poor health and poor sleep quality. Workers' workhours and productivity are therefore affected by sleep. This study aims to estimate the non-linear relationship between workhours and sleep quality in working Australians. We also examine other factors affecting the sleep quality, and the role of domestic unpaid time in this relationship.

Methods

Participants with any positive workhours are included in the analysis in order to allow for marginal effect estimate of workhours on sleep quality, and for non-linear relationship estimation. Sleep quality score is constructed from four sleep quality measures including sleep duration (hours), sleep rating, taking medicine to help sleep, and having problem falling into sleep in 30 minutes. 19,453 observations from Australian nationally representative survey data in 2013, 2017 and 2021 are used. Instrumental variable model is used to correct for reverse relationship between workhours and sleep quality to estimate causal relationship between workhours and sleep.

Results

We found both short and long hours are negatively associated with sleep quality in relation to the standard workhours. The optimal workhours at which sleep quality starts to be compromised if working over this optimal hour was 42-43hours per week even after adjusting for age, sex, presence of preschool children, long-term health condition, alcohol drinking, smoking, household financial situation, neighborhood environment, and job characteristics such as shiftwork, job demand, and work flexibility. We also found that women have a lower optimal workhour (36h/week) than men (47h/week) due to women's higher domestic unpaid time commitment.

Conclusions

The absence of stable full-time employment or excessive workhours negatively impacts sleep quality, particularly for women who often shoulder additional unpaid domestic responsibilities. Addressing sleep quality through improved working conditions, e.g., reducing part-time or casual employment and minimizing overwork, emerges as a vital strategy for enhancing sleep health. This is particularly crucial in light of the increasing mental health prevalence in Australia which is linked to sleep disturbances.

Assessment of smoking data quality of primary care practices

Dr Phyu Sin Aye[1,2], Dr Karen Bartholomew[1], Charlotte Aitken[1], Erin Chambers[1], Cleo Neville[1], Anna Maxwell[1], Peter Sandiford[1], Aivi Puloka[1], Sue Crengle[3], Katrina Poppe[2], Rob Doughty[1], Andrew Hill[1]
[1]Health New Zealand, Auckland, New Zealand, [2]University of Auckland, Auckland, New Zealand, [3]University of Otago, Dunedin, New Zealand

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Background: High quality smoking data is crucial for assessing smoking-related health risk and eligibility for related health interventions. While smoking information collected in primary care practices (PCPs) is a major data source, little is known about its quality. This project reviewed the PCP smoking data quality referencing the smoking data collected in the Māori and Pacific Abdominal Aortic Aneurysm (AAA) screening programme.
Methods: The review involved two stages. In Stage 1, the concordance was assessed of the PCP smoking data recorded close to AAA screening episodes and the data collected from participants at the AAA screening session. Inter-rater reliability was analysed using Cohen's kappa scores. In Stage 2, longitudinal smoking status was reviewed of a subset of potentially misclassified never or ex-smokers or those with missing smoking data in PCP records identified in Stage 1. Data were mapped and analysed for current smoker (smoke at least monthly), ex-smoker (stopped >1 month ago) and never smoker (smoked <100 cigarettes in lifetime).
Results: A total of 1716 (93%), of the 1841 people underwent AAA screening, had PCP smoking information. Stage 1 PCP smoking data showed 82% concordance with the AAA data (adjusted kappa 0.76). Fewer current or ex-smokers were recorded in PCP data. In the Stage 2 analysis of discordant and missing data (n=313), 93 participants remained enrolled in the 29 participating PCPs. Of them, smoking status has been updated for 43%. Smoking data on quantity, duration, or quit date were largely missing in PCP records. The AAA data of ex-smokers who were classified as never smokers in the Stage 2 PCP data (n=27) showed a median smoking cessation duration of 32 years (range 0-50 years), with 85% (n=23) having quit >15 years ago, and four persons, <15 years ago.
Conclusions: A concordance of 82% (adjusted kappa 0.76) between the PCP smoking data and the AAA data is consistent with international findings. PCP data captured fewer current and ex-smokers. Smoking data accuracy and recording on details could be improved. Intervention programmes based on smoking status should consider additional mechanisms for inviting eligible participants given the level of misclassification identified in this study.

Multimorbidity among the Indigenous population: a systematic review and meta-analysis

Dr K M Shahunja[1], Dr Tolassa Wakayo Ushula[1], Dr Mohammad Akhter Hussain[2], Dr Sanghamitra Pati[3], A/Professor Abdullah Mamun[1]
[1]The University of Queensland, 74 High Street, Toowong, Australia, [2]Barwon South West Public Health Unit, Barwon Health, Geelong, Australia, [3]Regional Medical Research Centre, ICMR, Bhubaneswar, India

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

Background: Multimorbidity, the concurrent presence of multiple health conditions in an individual, represents a mounting public health challenge. Chronic illnesses are prevalent in the Indigenous populations, which contributes to multimorbidity. However, the epidemiology of multimorbidity in this population is not well studied. This review aimed to elucidate the extent, determinants, consequences, and prevention of multimorbidity within the Indigenous populations globally, contrasting findings with the mainstream populations.
Methods: Adhering to the PRISMA guidelines, this systematic review assimilated peer-reviewed articles and grey literature, focusing on the prevalence, determinants, implications, and preventive strategies of multimorbidity in global Indigenous populations. Emphasis was given to original, English-language, full-text articles, excluding editorials, and conference abstracts.
Results: Of the 444 articles identified, 13 met the inclusion criteria. Most studies are from Australia, and the rest are from the USA, Canada, New Zealand, and India indicated a higher multimorbidity prevalence among Indigenous populations, with consistent disparities observed across various age groups. Particularly, Indigenous individuals exhibited a 2-times higher likelihood of multimorbidity compared to non-Indigenous populations. Noteworthy findings underscored the elevated severity of certain comorbid conditions, especially strokes, within Indigenous groups, with further revelations highlighting their significant pairing with conditions such as heart diseases and diabetes.
Conclusions: The findings affirm the elevated burden of multimorbidity among Indigenous populations. Prevalence and risk of developing multimorbidity are significantly higher in this population compared to their non-Indigenous counterparts. Future research should prioritize harmonized research methodologies, fostering insights into the multimorbidity landscape, and promoting strategies to address health disparities in Indigenous populations.

Bottle feeding in bed: risks of tooth decay and overweight in toddlers

Ms Heilok Cheng[1,2,3], Dr James John[4,5,6], Emeritus Professor Jane Scott[7], Professor Elizabeth Denney-Wilson[1,2,3], Professor Loc Do[8], Professor Sameer Bhole[1,3,9], Professor Louise Baur[1,2,10], Associate Professor Amit Arora[1,9,11,12]
[1]The University of Sydney, Camperdown, Australia, [2]NHMRC Centre of Research Excellence in Translating Early Prevention of Obesity in Childhood, Camperdown, Australia, [3]The Sydney Institute for Women, Children and their Families, Camperdown, Australia, [4]University of New South Wales, Sydney, Australia, [5]Ingham Institute of Applied Medical Research, Liverpool, Australia, [6]South Western Sydney Local Health District, Liverpool, Australia, [7]Curtin University, Bentley, Australia, [8]University of Queensland, Herston, Australia, [9]Sydney Dental Hospital and Oral Health Services, Surry Hills, Australia, [10]The Children's Hospital at Westmead, Westmead, Australia, [11]Western Sydney University, Camperdown, Australia, [12]Health Equity Laboratory, Camperdown, Australia

5B - Health promotion and sustainability, Golden Ballroom Centre, September 19, 2024, 1:15 PM - 2:45 PM

Early childhood caries (ECC) and overweight/obesity in childhood have long-term ramifications persisting into adulthood. National Australian surveys in 2017-2018 and 2012-2014 found that one in four children aged 2-4 years had overweight/obesity, and one in three children aged 5-6 years had ECC. Inappropriate bottle feeding practices, such as feeding to sleep and bottle use beyond recommended cessation at 12 months, may increase ECC or overweight risk due to increased exposure of teeth to cariogenic drinks or non-appetitive feeding of caloric drinks. We aimed to determine the association between bottle feeding to sleep at 24 and 36 months, with overweight and ECC at 3-4 years.

Analysis was undertaken of the Healthy Smiles Healthy Kids longitudinal birth cohort, comprising 1035 mother-infant dyads from an ethnically and socioeconomically diverse area in Sydney. The exposure was bottle feeding to sleep at 24 and 36 months. The outcomes were overweight and ECC at 3-4 years, as categorical (prevalence) and continuous (zBMI for weight status; dmfs for caries experience, the number of caries-affected tooth surfaces) variables. Prevalence of ECC and odds of overweight were modelled using multivariable logistic regression. Caries experience and change in zBMI was modelled using multivariable negative binomial distribution and linear regression.

At 3-4 years, 718 and 729 children were assessed for dental health and anthropometry respectively. 30.3% and 21.7% of children were bottle-fed to sleep at 24 and 36 months respectively. Bottle feeding to sleep at 24 months was associated with higher odds of overweight (OR 1.81, 95%CI 1.05-3.12) and moderately associated with higher caries experience (dmfs 1.48, 95%CI 1.00-2.20). Bottle feeding to sleep at 36 months was associated with higher caries experience (dmfs 1.88, 95%CI 1.22-2.91).

These findings contribute to the evidence of chronic disease risk from prolonged bottle feeding. It supports a common risk factor approach to ECC and overweight/obesity prevention by targeting inappropriate bottle feeding practices with behavioural (e.g. feeding to sleep) and nutritional (e.g. cariogenic drink intake) risk factors. We highlight the need to prevent inappropriate bottle feeding practices; support age-appropriate bottle cessation and transition to cup use; and communicate appropriate sleep and settling behaviours throughout early childhood.

Associations between transport modes and site-specific cancers: a systematic review and meta-analysis

Mr Win Thu[1], Dr Alistair Woodward[1], Dr Alana Cavadino[1], Dr Sandar Tin Tin[1,2]
[1]University Of Auckland, Auckland, New Zealand, [2]University of Oxford, Oxford, United Kingdom

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

Background
Physical inactivity is a global public health problem. A practical solution would be to build physical activity into the daily routine by using active modes of transport. Choice of transport mode can influence cancer risk through their effects on levels of physical activity, sedentary time, and environmental pollution. This review synthesizes existing evidence on the associations of specific transport modes with risks of site-specific cancers.

Methods
Relevant literature was searched in PubMed, Embase, and Scopus from 1914 to 17th February 2023. For cancer sites with effect measures available for a specific transport mode from two or more studies, random effects meta-analyses were performed to pool relative risks (RR) comparing the highest vs. lowest activity group as well as per 10 Metabolic Equivalent of Task (MET) hour increment in transport-related physical activity per week (~150 min of walking or 90 min of cycling).

Results
27 eligible studies (11 cohort, 15 case-control, and 1 case-cohort) were identified, which reported the associations of transport modes with 10 site-specific cancers. In the meta-analysis, 10 MET hour increment in transport-related physical activity per week was associated with a reduction in risk for endometrial cancer (RR: 0.91, 95% CI: 0.83–0.997), colorectal cancer (RR: 0.95, 95% CI: 0.91–0.99) and breast cancer (RR: 0.99, 95% CI: 0.89–0.996). The highest level of walking only or walking and cycling combined modes, compared to the lowest level, were significantly associated with a 12% and 30% reduced risk of breast and endometrial cancers respectively. Cycling, compared to motorized modes, was associated with a lower risk of overall cancer incidence and mortality.

Implications
The findings indicated active transport modes appear to reduce the risk of common cancers such as colorectum, breast, and endometrium and provided additional evidence to support using more physically active modes for transport purposes.

Maternity care experiences of African women in Australia: A descriptive qualitative study

Dr Ayele Geleto Bali[1,2], Dr Vidanka Vasilevski[1,2], Professor Linda Sweet[1,2]
[1]School of Nursing and Midwifery, Deakin University, Burwood, Australia, [2]Centre for Quality and Patient Safety Research, Institute for Health Transformation, Western Health Partnership, Melbourne , Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim: Evidence has shown that African women are more likely to experience adverse perinatal health outcomes compared to their Australian-born counterparts. This could be due to challenges associated with accessing and receiving adequate maternity care in Australia. Although migration from Africa to Australia has been rapidly increasing, evidence is limited about the experiences of African women accessing maternity care. Therefore, this study aimed to investigate the maternity care experiences of African women living in metropolitan Melbourne, Australia.
Methods and analysis: A descriptive qualitative study was conducted among African women residing in metropolitan Melbourne, Australia. Women were purposively selected and interviewed from September to December 2023. The interviews were audio recorded and transcribed verbatim. The study's trustworthiness was assured by applying Lincoln and Guba's criteria. Data were analysed using Braun and Clarke's thematic analysis following an inductive approach managed in NVivo version 14.
Research findings: Fifteen women who had migrated from nine different African countries shared their most recent maternity care experiences. Both positive and negative experiences were identified. Difficulties navigating the health system, a lack of social support, being attended by male clinicians, clinician’s failure to recognise women’s prior childbirth experiences, being discriminated against, a lack of empowerment for decision-making, and clinician cultural insensitivity negatively impacted women’s pregnancy experiences. Contrarily, receiving sufficient information, gaining prompt attention, fee-free services, positive staff attitudes, and proximity to health facilities resulted in positive experiences of maternity care.
Translational outcomes: This study provides robust evidence to inform policies and practices to initiate strategies that enhance access to maternity care for African women living in Australia.
Future actions: Clinicians require greater awareness and sensitivity to women’s cultural needs. Designing and implementing a culturally responsive service model may reduce negative experiences and enhance timely and adequate access to maternity care, thereby, improving women’s perinatal health outcomes.

The impact of raked weighting on WA health and wellbeing prevalence estimates

Ms Candice Patterson[1]

[1]Epidemiology Directorate, WA Department of Health, East Perth, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

Since 2002 the Health and Wellbeing Surveillance System (HWSS) has collected information on a range of health and wellbeing topics using survey methods. Each year a random selection of residents from Western Australia (WA) are asked a series of questions on chronic health conditions, risk factors, health service utilisation, and mental health. The collected information is weighted and used to produce prevalence estimates for health topics annually and over time. This allows WA Health to monitor trends in public health. Despite recent increases in sample size, modernisation of sample frames and the introduction of online data collection, the representativeness, stability and reliability of prevalence estimates have declined. We determined the design and post-stratification weighting method was insufficient in addressing non-response bias. An alternative weighting method needed to be identified and tested to maintain the ability of the HWSS to accurately monitor public health trends into the future.

In raked weighting, weights are created and iteratively adjusted so that the proportions of certain demographic characteristics in the respondent sample are equal to the proportions found in the population. Raked weighting also avoids the creation of very large weights which can introduce instability into prevalence estimates. We tested raked weighting as an alternative to design and post-stratification weighting for HWSS collected data over time. ABS Census population totals for the year prior to data collection were used and proportions were calculated in 5 yearly blocks for age, sex, geographic location, country of birth, marital status, educational attainment, and employment status. We compared demographic alignment, summary statistics of weights, and prevalence estimates for each year. We also examined the need for adjustment for differences between online and telephone respondents.

Raked weighting produced smaller weights with better demographic alignment, and improved representativeness, reliability, and stability of the prevalence estimates when compared with design and post stratification weighting. Mode adjustment was not required. We have re-weighted all HWSS data collected since 2002 using raked weighting. Other population health surveys undergoing modernisation of survey data collection methods should consider raked weighting to allow the preservation of trends and a reduction in differences by mode.

The intergenerational transmission of preterm birth: a systematic review and meta-analysis

Dr Abdulbasit Seid[1]
[1]Monash University, Melbourne, Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Abstract
Background: Around half of preterm births lack identifiable causes, indicating the need for further investigation to understand preterm birth risk factors. Existing studies on the intergenerational transmission of preterm birth showed inconsistency in effect size and direction.
Objective: This systematic review and meta-analysis aimed to review existing studies and provide comprehensive evidence on the intergenerational transmission of preterm births.
Search strategy: We searched MEDLINE, Embase, and Maternity and Infant Care databases, from the inception of each database to 04/04/2024.
Selection criteria: Eligibility criteria included studies that reported on women who had given birth and had recorded information about family history of preterm birth in one or both of the child's biological parents.
Data collection and analysis: Data were extracted by two independent reviewers. A random-effects model was used to compute pooled estimates using odds ratios.
Main results: Sixteen eligible studies with a total of 2,271,612 mothers were included. The findings indicated a 1.44 (OR=1.44, 95% CI: 1.34, 1.54) fold increase in odds of giving preterm births among women who were born preterm. Additionally, having a sibling born preterm (OR=1.53, 95%CI=1.24, 1.87), and having a partner born preterm (OR=1.12, 95%CI: 1.01, 1.25) were associated with increased likelihood of giving preterm births among women.
Conclusion: The study revealed that women with a family history of preterm birth face an increased risk of giving preterm births. It is important that countries integrate screening of family history of preterm into routine prenatal care. Closer follow-up and monitoring should be prioritized for pregnant women with a positive family history of preterm birth.

What else is needed to implement unhealthy food marketing restrictions in Australia?

Dr Claire Pulker[1,2], Ms Clare Whitton[1], Ms Frith Klug[1], Professor Gina Trapp[1,3,4]
[1]Edith Cowan University, Joondalup, Australia, [2]Curtin University, Perth, Australia, [3]Telethon Kids Institute, Crawley, Australia, [4]The University of Western Australia, Crawley, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim:

The World Health Organization states there is unequivocal evidence that food marketing influences food preferences and eating habits. Defining 'unhealthy' food is the most complex and critical aspect of unhealthy food marketing restrictions. This study aimed to assess the development of Food Classification Schemes (FCSs) applicable to Australian government nutrition policies, to determine what else is needed to implement unhealthy food marketing restrictions.

Methods and research findings:

The following Australian government-led or endorsed FCSs were reviewed for consistency with recommendations for developing fit-for-purpose FCSs. Model A: National interim guide to reduce children's exposure to unhealthy food and drink promotion; Model B: Food Standards Australia New Zealand Nutrient Profiling Scoring Criterion; Model C: Health Star Rating System; and Model D: World Health Organization Nutrient Profile Model for the Western Pacific Region. Publicly available information describing development of each FCS was synthesised for the following attributes: purpose of the FCS, target population, decision making about the FCS design, FCS validation. Purpose of the FCS: Models A and D were developed to support restrictions of unhealthy food marketing; Models B and C were developed for front-of-pack labelling purposes. Target population: Models A and D were developed to protect children; Models B and C were not targeted. Decisions about FCS design: There was no publicly available information describing design decisions for Models A, B or C, and limited information for Model D. FCS validation: All Models have undergone none or limited validity testing.

Translational outcomes:

Development of Australian government-led or endorsed FCSs defining unhealthy food for nutrition policies has not benefitted from the same level of transparency as those developed in other jurisdictions. To date, there are no Australian government restrictions of unhealthy food marketing and selection of the most appropriate FCS is highly contested, indicating more work is needed.

Future actions:

Given the absence of transparent development processes and limited validity testing for any FCS applicable in Australia, more work is needed to select and operationalise a fit-for-purpose model. Recommendations include examining the impact of design decisions made during development and undertaking an extensive validation process for the selected model.

Aboriginal Cultural Competency Frameworks How to Engage, Draft, Implement and Measure

Dr Erica Davison[1]
[1]WA Primary Health Alliance, Subiaco, Australia

3A - Racism in Health and Decolonisation of the System, Golden Ballroom North, September 18, 2024, 11:00 AM - 12:30 PM

WA Primary Health Alliance (WAPHA) celebrates the cultural history of Aboriginal people and aims to ensure our workforce, services we procure and primary health care services we influence, are culturally competent. The focus of this paper is to discuss the phased approach WAPHA has taken working with Aboriginal people to design and implement an Aboriginal Cultural Competency and Capability Framework.
The burden of disease for Aboriginal people remains 2.3 times greater than for non-Aboriginal communities, and chronic conditions and overweight continue to demonstrate increased prevalence. The social determinants of health influence this, whilst the cultural determinants work to mitigate, and by embedding culturally competent health services, and by prioritising Aboriginal people's engagement when using mental health, alcohol and other drugs, population health, aged care, and primary health care services, we may close the gap.
Phase One: Best practice review
A literature review of national and state policy, guidance materials, national Primary Health Network activity, best practice recommendations and mapping of WAPHA's Aboriginal cultural competency activity was achieved.
Phase two: Internal engagement methodology
A survey instrument was designed and administered to staff and qualitative focus groups engaged, to identify strengths of current process, areas for improvement and actions/tools needed to enable staff to implement the framework.
Phase three: External engagement methodology
WAPHA engaged Kambarang Services (Aboriginal owned) to lead external consultation with Aboriginal community members, WAPHA's procured service providers, and peak bodies. We asked:

- What does a safe service look and feel like?
- What are the barriers?
- What makes a service culturally safe?
- How can WAPHA support services to become more culturally competent and safe for all Aboriginal people?

120 Aboriginal community members were consulted on what makes services culturally safe for them, 4 focus groups were held in metropolitan and regional WA, as well as 8 online focused sessions. The description of how this enriched our understanding of stakeholder expectations regarding WAPHA's approach to cultural safety, the key characteristics for a service to be culturally safe, an overview of the Aboriginal Cultural Competency and Capability Framework, the implementation guide and our next steps will be provided.

Infants entering out-of-home care: Health, developmental needs and service provision.

Mr Fernando Lima[1], Associate Professor Stephanie Taplin[2], Dr Miriam Maclean[1], Professor Melissa O'Donnell[1]
[1]Australian Centre For Child Protection, Perth, Australia, [2]School of Public Health, Faculty of Health, University of Technology Sydney, Sydney, Australia

5B - Health promotion and sustainability, Golden Ballroom Centre, September 19, 2024, 1:15 PM - 2:45 PM

Internationally, rising numbers of children are entering out-of- home care during the first year of life due to child protection concerns. Across Australia, infants (children <1 year old) are over-represented in the child protection system. Infants entering care are reported to be at much higher risk of developmental vulnerability, poor health and attachment problems. This includes an increased risk of neonatal withdrawal syndrome, have a birth defect or disability. Developmental vulnerability can impact on children's school readiness, educational achievement, social-behaviour, and mental health conditions. Our study aims to determine the prevalence of developmental vulnerability in a sample of children entering care as infants, and the extent and likelihood of service provision to these children. This study uses interview data and standardised assessments from the Pathways of Care Longitudinal Study (POCLS), linked to administrative data from New South Wales government. The Ages and Stages Questionnaire and the Brief Infant Toddler Social Emotional Assessment were used as baseline measures for children's cognitive and socio-emotional development.

Of the 474 children who entered out-of-home care as infants and participated in POCLS, almost one in four were preterm, one in five were low birth weight, 9% had a diagnosis of neonatal withdrawal syndrome, and one-sixth were identified as having a disability. Close to 70% children were identified as developmentally vulnerable as per the standardised measures. This included children who were born pre-term or of low birth weight (21–29%) and almost 10% of infants who had a diagnosis of neonatal withdrawal syndrome. Unfortunately, only 17.5% of children were receiving services for developmental delay, which is much lower than the 70% who were identified as vulnerable.

Developmental screening infants in this high-risk group provides an important opportunity to address their needs during this important period of development. Not all carers would have sufficient knowledge and skill to identify infant developmental vulnerability, therefore the role of caseworkers is essential in working with carers to discuss developmental milestones. Given the adversity that children identified as requiring child protection intervention are exposed to, it is imperative that sustained effort is made to provide early intervention to address developmental vulnerabilities.

Move more, connect more with your local government groups

Ms Monique D'Souza, Mrs Katie Cameron[1], Mrs Ainslie Sartori[1], Ms Anne Finch[1]
[1]Cancer Council WA, Subiaco, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim
LiveLighter® is a comprehensive program that utilises social-marketing and other strategies to improve the health and wellbeing of WA adults. Working closely with local government agencies allows LiveLighter® to leverage existing community programs and connections and extend the reach of the messages beyond paid media. This collaborative approach meets the mutual aims of local government programs and LiveLighter®; to improve the community's health and wellbeing.

Methods and analysis
The 'Move More' campaign aims to encourage Western Australian adults to be more physically active by highlighting the intrinsic benefits of physical activity, like better mental health, more energy, and connecting with others. Important creative considerations included using a tone that was empowering, positive, and helpful, and representing a diverse range of people.

For the second wave of 'Move More' LiveLighter® collaborated with the City of Melville. The campaign was launched at the same time as the resumption of their free 'yoga in the park' sessions. LiveLighter® hosted an activation at the event, with a 'big blue door' and merchandise giveaways. Alongside the City of Melville, the LiveLighter® team promoted this event across multiple social media channels to encourage participation.

Translational outcomes
This collaboration was a success, with 60+ community members attending, and the campaign gaining coverage on radio and TV news. It also inspired other community programs and local governments to adopt the 'Move More' messaging within their communities. There were 1500+ views on the 'Move More' campaign web page that weekend.

Future actions
Nurturing collaborations has benefits for health promotion campaigns, local government campaigns and community members. Working closely with local government to achieve a mutual goal was effective in spreading the 'Move More' campaign messaging and is a strategy we encourage health promotion campaigns to trial.

Bicultural Workers - Building Bridges for Multicultural Health

Ms Jasmine Phillips[1]
[1]cohealth, Footscray, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

The COVID-19 pandemic was instrumental in highlighting the critical importance of engaging multicultural communities in public health. Due to a lack of pre-existing engagement and barriers such as, language, trust, and cultural differences however, governments and mainstream organisations struggled to effectively engage with these communities when needed.

Bicultural workers (BCWs) can play a vital role in addressing these challenges. They act as cultural bridge, drawing upon their lived experiences, language proficiency, cultural knowledge, and community connections to engage communities, facilitate culturally safety, and co-design programs that are responsive to community needs.

Despite the critical role of BCWs, many mainstream organisations lack experience in employing them and the skills to support them effectively. BCWs have also expressed a lack of opportunity for formal employment and training, as mainstream organisations generally seek cultural expertise from volunteers.

cohealth launched its bicultural program in 2017, with an aim to enhance BCWs' capacity, build professional recognition of the role, and improve cohealth’s engagement with refugee communities. Since then, cohealth BCWs have achieved over 200,000 engagements with people from refugee backgrounds, delivering programs co-designed with community to respond to their needs, ultimately improving their health and wellbeing.

In 2019, cohealth also developed 'The Professional Standards for Bicultural Work', a set of best practice guidelines to facilitate employment and support for BCWs. Over 1800 staff members from different organizations across Australia have since been trained in these standards, with 98% reporting improved confidence to employ and support BCWs, to improve engagement with multicultural communities.

The impact of the bicultural program has been significant and has contributed to enhanced health equity among refugee communities in Victoria. We must continue to build understanding of the benefits of working with BCWs and overcome barriers to their employment. When governments and mainstream organisations recognise BCWs as integral partners, multicultural community engagement, service accessibility, and cultural safety will improve, ultimately ensuring better health equity outcomes for all.

Addressing equity in diabetes prevention in women with a history of GDM

Dr Siew Lim[1], Mr Gebresilasea Gendisha Ukke, Dr Rajshree Thapa, Ms Kristie Cocotis, Prof Christopher Gilfillan, Ms Carli Leishman, Associate Professor Ahmed Reja, Mr Wubet Worku Takele, Associate Professor Jacqueline A. Boyle
[1]Health System and Equity, Monash University, Boxhill, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim: Gestational Diabetes Mellitus (GDM) affects around 16% of all pregnancies with significantly greater prevalence in non-White ethnicities. GDM increases the risk of type 2 diabetes (T2DM) after delivery by up to 10-fold, but this risk could be reduced by lifestyle intervention. Program enrolment and completion in lifestyle interventions differ by social indicators. This study investigated inequities in a state-wide T2DM prevention program for women who had GDM.
Methods and analysis/research findings. An equity audit (2014-2022) was conducted to uncover underserved populations among women with a history of GDM within the Life! program, using the PROGRESS-Plus framework (Place of residence, Race/ethnicity/culture/language, Occupation, Gender/sex, Religion, Education, Socioeconomic status, and Social capital Plus age, smoking, disability and sexual orientation). Interviews were conducted with women with a history of GDM from rural and regional or South Asian backgrounds, and with their health professionals. Women from metropolitan areas were more likely to complete the program (AOR = 1.69, 95% CI: 1.29–2.22). Women with South or Central Asian background were less likely to complete the program (AOR = 0.67, 95% CI: 0.48–0.94). Nine women and six health professionals from the rural and regional group and twelve women and nine health professionals from the South Asian group were interviewed. The interviews revealed key barriers to engagement including low awareness of the program, low awareness of T2DM risks following GDM, lack of systematic referral pathway, health service gaps in the postpartum period and limited consultation time with general practitioners. Additional issues were revealed for South Asian women including health services not accommodating a family-centric approach to health, lack of access to Medicare, and health services that are not culturally responsive.
Translational outcome: Co-design workshops are underway between health professionals, women, and the Life! program staff members to develop effective pathways to reach these populations.
Future actions: Regular equity audits should be conducted for health services to uncover underserved populations. The experiences of these groups with health services should be explored and used as a basis to co-design person-centred care that is tailored to the specific needs of the group.

Assessing Emergency Nurses' Knowledge of Radiation Exposure in Nuclear and Radiological Emergencies

Dr HAMAD DAILAH[1]
[1]Faculty of Nursing-Jazan University, Jazan , Saudi Arabia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Objective: This study aims to evaluate the knowledge level among emergency nurses regarding radiation exposure and the implementation of protective countermeasures during nuclear and radiological emergencies.

Methods: A cross-sectional study was conducted using a self-structured questionnaire with 15 true false questions, divided into three categories: radiation exposure protection measures, radiation exposure health effects, and decontamination procedures.
Descriptive statistics summarized
demographic characteristics and item scores. Inferential statistics, including t-tests, ANOVA, and linear regression models, were used to analyze associations and differences between variables.
Results: A total of 396 nurses participated in this study, most participants were young (68.69% aged 18-30), predominantly female (68.69%), largely held bachelor's degrees (68.69%), were single (63.64%), had ≤4 years of experience (56.06%), worked in public health facilities (88.89%), and notably, 85.35% had not received training in medical response to radiological or nuclear accidents. For radiation protective measures, the average score was 2.32 ± 0.99, with 86.36% showing poor knowledge. In the area of radiation exposure effects, the score was slightly higher at 3.27 ± 0.91, with 62.63% of nurses in the poor knowledge category and 37.37% in the acceptable range. The lowest scores were observed in decontamination knowledge, where the average was 1.46 ± 1.07, with 92.42% demonstrating poor knowledge. Overall knowledge was measured at an average score of 7.06 ± 1.68, with 97.47% of nurses categorized under poor knowledge and only 2.53% achieving an acceptable level.
The results also revealed a significant difference in the
overall knowledge mean score between nurses working in private and public health facilities (P = 30.034), with those in private hospitals scoring higher on average (7.77 ± 1.82) compared to their counterparts in public hospitals (6.97 ± 1.65)

Conclusion: This study found a poor knowledge level among emergency nurses regarding radiation protective measures during radiation emergency and highlights a critical need for enhanced and standardized training in radiation emergency preparedness among nurses,
particularly in public hospitals.
The gaps in knowledge identified in this study could significantly impact the effectiveness of healthcare responses in radiation emergency scenarios.

Keywords: emergency nursing, radiation exposure, protective measures, decontamination, radiation emergencies

Adaptation and validity of photovoice study in nutritional research: a preliminary study

Ms Syarifah Aqilah[1], DR Nutta Taneepanichskul[1]
[1]College of Public Health Sciences, Chulalongkorn University, Pathumwan, Thailand

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

Health providers in Indonesia have been promoting balanced nutrition, but it is believed that many Indonesians still cling to older nutrition slogans that do not emphasize portion sizes. While Photovoice has been used to give a voice to the unheard, it has not been widely applied in the context of nutrition. This study aims to explore the applicability of this methodological approach in capturing the understanding, facilitator, and barrier related to balanced nutrition. Adolescent girls were encouraged to take part in the study. Initial meetings, photo sessions, and focus group discussions were conducted as suggested. During pilot testing, it was necessary to improve the SHOWeD mnemonic for context understanding among adolescents. And so, the following questions were raised: Why did you send this picture to me? (See); When do you have it? How do you get this food? (Happening); In your opinion, what do balanced meals mean? (Our lives); How do balanced meals affect your life? (Why); Suppose you are the expert, how can you suggest to me or anyone to apply balanced meals? You can use kitchenware, or friend/personnel in your suggestion (Do). Fourteen photographs were produced from eight participants. The discussion flow was built and time-efficient. As saturated information was achieved, thematic analysis was done based on the transcription. We learned that girls had a good understanding of the complete meal concept, but food variety and availability often hindered their food choices. They expressed that food from home played an essential role in their daily meals. This study suggests such a methodology may be appropriate for an in-depth understanding of nutritional behavior. Moreover, the discovery allows further direction for nutritional intervention.

Breaking the cycle: over-representation of First Nation young males in youth detention

Ms Emily Vansittart[1]
[1]Integrated Support Solutions Wa, Perth, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Indigenous young males are significantly over-represented in youth justice in Australia. While First Nations Peoples make up only 4% of the Australian population, 70% of young people incarcerated in Western Australia (WA) are Indigenous; 90% are male. The human brain is not fully developed until the age of 25 years old, and young people do not have the necessary cognitive processing skills or development to make informed, safe, and health-enabling decisions. However, children as young as 10 years old are being held in youth detention facilities in WA, and 80% of young people who are released from custody return to those facilities within 12 months. Furthermore, approximately 90% of detained young Indigenous males live with one or more significant psychosocial disability, such as Fetal Alcohol Spectrum Disorder (FASD) and hearing and learning impairments. It is the ongoing effects of colonisation, intergenerational trauma, and systemic racism, associated with social, environmental, and geographical determinants of health experienced by Indigenous Australians that has led to this over-representation in youth detention – not individual responsibility. The health and social systems within Australia have a responsibility to address the underlying causes leading to high rates of young people in youth detention in WA. However, policies and actions across all systems and services have consistently failed to address the recommendations contained within the Closing the Gap Report to help improve the health and social outcomes of Indigenous Australians. The delivery of services for First Nations Peoples in Australia that encompass culturally safe, community-centred, social, and emotional wellbeing frameworks are most effective in improving the overall health of Indigenous young people. First Nations young people must be better supported from birth through appropriate models of care. Justice involvement among Indigenous young people living with cognitive, developmental, and psycho-social disabilities, can be avoided when they are provided with culturally safe, and consistent health and social support, programs, and services that appropriately address their needs.

Culturally safe, impactful public health: Lessons from the Tackling Indigenous Smoking program

Ms Lena Etuk[1], Dr Ly Tong, Dr Thushara Dibley
[1]Cultural & Indigenous Research Centre Australia, Redfern, Australia

1A - Focus on Indigenous self-determination and leadership, Golden Ballroom North, September 17, 2024, 1:30 PM - 3:00 PM

Tobacco use is a leading cause of death amongst Aboriginal and Torres Strait Islander peoples. The Tackling Indigenous Smoking (TIS) Program, funded by the Commonwealth Department of Health and Aged Care since 2010, aims to reduce smoking (and now e-cigarette) use and uptake across these communities. TIS is:

- an evidence-based public health program
- designed for and by Aboriginal and Torres Strait Islander peoples
- supported by a National Coordinator and National Best Practice Unit (NBPU)

This presentation will discuss implementation outcomes from a 2018-22 evaluation of TIS and implications for public health practice.

An implementation objective of TIS is that it be culturally appropriate, evidence-based, and accessible to a diversity of Aboriginal and Torres Strait Islander peoples. To assess whether the 2018-22 TIS round met this objective, we used a mixed-methods approach, which included:

- site visits and interviews with TIS-funded organisations
- surveys with TIS team staff
- interviews with National Coordinator and NBPU
- analysis of TIS-funded organisations' Activity Work Plans and Performance Reports

Our evaluation found:

- The delivery of the TIS program was culturally appropriate, and there was Aboriginal community control and ownership.
- The activities in the program were largely evidence-based; however, the nature and quality of evidence used varied considerably across TIS teams.
- TIS teams reached a wide range of people through social media and social marketing, distribution of resources and partnerships with organisations and community leaders. TIS team reports indicated more guidance is needed in measuring reach, however.

The evidence supported continued funding for the program, with some improvements, including:

- Improving TIS teams' access to evidence-based resources
- Facilitating peer learning opportunities
- Strengthening support for TIS teams to monitor reach and gather local data

TIS is an example of how a public health program, designed by and for Aboriginal and Torres Strait Islander peoples, can be delivered in a culturally safe manner, grounded in evidence, and reach a diverse audience. Lessons from TIS can guide future implementation and evaluation of public health programs for Aboriginal and Torres Strait Islander peoples, especially to address the increasing use of e-cigarettes.

**Please note: All of the Aboriginal and Torres Strait Islander Community Controlled organisations that were part of this evaluation have given permission for these findings to be published. We sought this permission at the start of the evaluation and have letters of consent from them.

What is the future of precision public health? Uncertainty and expert accounts.

Ms Rebecca Bosward[1], Professor Annette Braunack-Mayer[1], Professor Stacy Carter[1]
[1]Australian Centre for Health Engagement, Evidence and Values, School of Health and Society, Faculty of the Arts, Social Sciences and Humanities, University of Wollongong, Wollongong, Australia

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim: Precision public health is an emerging field that promises improved capabilities to address population health needs and reduce inequities. However, lack of consensus around terms and definitions and absence of empirical evidence creates uncertainty about its future impacts. This study aims to elicit and explain stakeholders' views about the futures of precision public health and identify priority areas to advance the field.

Methods and analysis/research findings: We interviewed 25 expert stakeholders in precision public health from the United States, Australia, the United Kingdom, and Singapore. Results were analysed through the lens of Futures Studies to explore the level of uncertainty about the futures of precision public health. Participants described potential futures for precision public health, which we describe moving from the areas of most certainty to the areas of most uncertainty. Most believed it likely that precision public health would continue to adopt emerging technologies, novel data sources and methods. Some expressed confidence that precision public health would improve capabilities to address public health issues, while others said that it is still too early to see outcomes. All participants thought it possible that precision approaches could cause harm; some were concerned that research ethics/governance may not keep pace. Some thought it possible that the absence of empirical evidence and ill-defined nature of the field may create confusion or disagreement over the applications and uses of precision public health. When asked to identify key priority areas needed to advance the field, participants described the need for capacity building and education, better data and technology infrastructure, more knowledge translation activities, engaging communities in research, and working towards consensus on terms and definitions.

Translational outcomes: This is preliminary work towards an approach to precision public health that can inform public health practice.

Future actions: We found broad consensus that precision public health will continue to progress and be influential, however, consensus on the nature and application of precision public health is still not present. It would advance the field if consensus documents including the perspectives of a wide range of stakeholders and communities, were developed as a matter of priority.

Assessment of digital health station utilisation across different remoteness areas in Queensland

Ms Leah Flitcroft[1]
[1]Swinburne University Of Technology, Hawthorne, Australia

1D - Communicate and Collaborate: Advancing health care outcomes, Hamersley, September 17, 2024, 1:30 PM - 3:00 PM

Located in retail areas and free to use, digital health stations are kiosks that offer an affordable and accessible platform for people to monitor their blood pressure and weight. To date there has been no research to determine the differences in utilisation between urban, regional and remote areas. This study therefore aimed to provide a detailed analysis of the utilisation of digital health stations in Queensland, and the health outcomes for users, with a particular focus on the differences in utilisation across remoteness areas.

Data was collected from 83 SiSU wellness health stations installed across Queensland, for the period January 1, 2018, to May 18, 2023. A total of 427,802 health checks were conducted during this period, pertaining to 273,123 unique users. Multivariate analyses were conducted to identify differences in utilisation and outcomes for users according to sociodemographic and geographic characteristics.

Results reveal that a higher proportion of users were female, from the lowest and highest socio-economic quintiles, and younger, compared to the general Queensland population. There was a lower proportion of users from remote areas, which aligns with the current distribution of stations in Queensland. Users residing in remote areas travelled longer distances to access health stations, and were less likely to be repeat users. Those residing in major cities travelled the shortest distance to a health station, however people residing in inner regional areas were more likely to be repeat users. There was no significant difference in the number of checks per day for stations located in different remoteness areas, however due to low numbers for the one remote station in Queensland, remote areas were excluded from this analysis. There were significant decreases in blood pressure for those with high baseline scores, with more rapid improvements observed in those aged under 65 years. Improvements to baseline blood pressure were observed in all remoteness areas apart from those residing in remote areas.

These findings provide valuable insight into the differences in utilisation of digital health stations across difference demographic cohorts and remoteness areas, however highlight the need for further piloting and assessment of utilisation in remote areas in Queensland.

Machine learning to discover factors predicting white matter hyperintensity volume

Mr Yigizie Yeshaw[1,2,3,4], Dr Iqbal Madakkatel[1,2,3], Dr Anwar Mulugeta[1,2,3,5], Dr Amanda Lumsden[1,2,3], Professor Elina Hyppönen[1,2,3]
[1]Australian Centre for Precision Health, University of South Australia, Adelaide, Australia, [2]UniSA Clinical and Health Sciences, University of South Australia, Adelaide, Australia, [3]South Australian Health and Medical Research Institute, Adelaide, Australia , [4]Department of Epidemiology and Biostatics College of Medicine and Health Sciences University of Gondar, Gondar, Ethiopia , [5]Department of Pharmacology and Clinical Pharmacy College of Health Sciences, Addis Ababa, Ethiopia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim: Brain white matter hyperintensities (WMHs) reflect the risks of stroke, dementia, and overall mortality. Existing epidemiological and machine learning-based studies lack to fully explore factors associated with WMHs. This study used a novel hypothesis-free machine-learning approach, to uncover potential risk factors for the development of WMHs using information from the world's largest brain imaging study.

Methods and analyses: We used a hypothesis-free gradient boosting decision tree (GBDT) approach, and conventional statistical methods, to discover risk factors associated with WMH volume. The GBDT models considered data on 2891 input features in WMHs prediction, collected ~10 years prior to WMH volume measurements from 44,053 participants. After ranking the contribution of each feature to model prediction using Shapley values, the top 3% of features were taken forward to epidemiological analyses using linear regression adjusted for basic confounders. Results are presented using βs and 95% confidence intervals, with false discovery rate adjusted P-value <0.05 used to declare statistical significance.

Research findings: Multiple sclerosis had the strongest association with WMH volume. Several adiposity-related measures (weight, waist circumference, whole body fat-free mass) contributed to WMH prediction, as did indicators reflecting metabolic health (glycated haemoglobin, glucose, blood pressure, hypertension, alkaline phosphatase, gamma glutamyltransferase, aspartate aminotransferase, microalbumin, total protein, and urate). Of lifestyle factors, smoking had the strongest association. Associations were also seen for lung function parameters, red blood cell indices and monocyte count.

Translational outcomes and future actions: These analyses suggest obesity, high blood pressure and related metabolic abnormalities as key contributors to WMH volume. Interventions targeting hypertension and metabolic disturbances, may provide opportunities to prevent or reduce the development WMHs. Further research is needed to establish causal relationships and develop effective intervention strategies based on these insights.

What is the burden of mental illness attributable to high-temperature in Australia

Dr Jingwen Liu[1], Dr Blesson Varghese[1], Dr Alana Hansen[1], Prof Peng Bi[1]
[1]School of Public Health, The University Of Adelaide, Adelaide, Australia

1B - Health ramifications of climate change, Golden Ballroom Centre, September 17, 2024, 1:30 PM - 3:00 PM

Context and aim:
High-temperature exposure has important implications for mental and behavioural disorders (MBDs). However, knowledge gaps exist in quantifying the burden of MBDs associated with hot weather. This study aims to assess the burden of MBDs attributable to high-temperature exposure and project future burden of MBDs in Australia across all states and territories, considering various climatic, demographic and adaptation scenarios.

Methods and analysis/research findings:
The disability-adjusted-life-years (DALYs) data on MBDs during 2003-2018 (baseline) were sourced from the Australian Institute of Health and Welfare, including both fatal and non-fatal outcomes. Using meta-predictors and relative risks (RRs) from prior literature, we constructed a meta-regression model that estimated location-specific RRs for each of the 2,310 statistical areas. We then calculated the annual burden of MBDs attributable to high-temperature by combining the RRs with both observed and projected daily mean temperature data. Future changes in the burden of MBDs attributable to increasing high-temperature exposure, centred around 2030s (2016-2045) and 2050s (2036-2065), were projected under two climate change scenarios (RCP4.5 and RCP8.5), considering shifts in population size and age structure, as well as human adaptation to climate change. We found that from 2003 to 2018 (the baseline), high-temperature accounted for 1.8% (between-years SD: 0.2%) of the recorded burden of MBDs in Australia. According to our projections under the high emission scenario (RCP8.5), the burden of MBDs attributable to increasing high-temperature is expected to more than double by 2050s compared to the baseline level. Assuming no adaptation, this excess rise can be attributed to changes in population characteristics (65.4%) and an increase in high-temperature exposure (34.6%).

Translational outcomes:
This study highlights the expected increase in burden of CVD in Australia due to high temperatures, and emphasizes the urgent need for adaptation and mitigation strategies to minimize the negative health impacts associated with a warming climate.

Future action:
The diverse geographical patterns of the attributable burden of MBDs identified in our study highlight the necessity of tailored adaptation and mitigation measures to optimize the effectiveness in reducing the future burden of MBDs in the context of a warming climate.

Exploring Alternate Leisure settings as a place-based health promotion approach

Mrs Cassandra Crothers-Swensson[1], Ms Belinda Hogg[1]
[1]Monash Health, Pakenham, Australia

5A - Cultural Competence in Healthcare and Public Health, Golden Ballroom North, September 19, 2024, 1:15 PM - 2:45 PM

Physical activity is a key modifiable risk factor for the prevention of many chronic diseases. However, between 2013 and 2021, only half of Victorian adults aged over 18 years met the recommended levels of physical activity, with levels also declining in children. Innovative alternatives to traditional, structured sport are needed to ensure Victorians meet the guidelines to gain health benefits.

Alternate leisure settings (ALSs) have been recognised as a place to provide fun and social physical activity options for families, children and young adults, and are consequently a great opportunity to influence and support the communities' health. Examples of these settings include dance and aerial studios, trampoline centres, children's play centres, theme parks among others. They represent an under-utilised environment for preventative health efforts. Therefore, the aim of this research project was to explore the suitability of ALSs as a place for health promotion action.

A design-thinking methodology was used to co-design a pilot project with community members and alternate leisure settings through a research survey and focus group, to improve the health and wellbeing environments of ALSs in three local government areas in south-east Melbourne. Research surveys identified barriers to accessing ALSs were low levels of inclusivity and accessibility to the local community, a lack of healthy food options, and high entry fees. Consequently, two priority health areas were identified; healthy eating and inclusion.

Four ALSs were engaged in the pilot including: a dance studio, an aerial studio, a children's farm and a play centre. These settings were encouraged to create action plans to either improve their healthy eating environment or increase their inclusivity and accessibility. Engaged settings also had access to an incentive voucher program funded by VicHealth which aimed to understand whether low entry fees would lead to an increase in visitations and sustained retention from community members. Three hundred community members accessed the engaged settings using the incentive voucher program over a 10 month period.

Evaluation of the pilot project including interviews, surveys and focus group findings will be presented, and recommendations on the suitability of alternate leisure settings for health promotion action will be discussed.

Establishment and Safety Assessments of Micro/Nanoplastic Libraries 3: Focus on Polystyrene (PS)

Prof., Dr. Yasuo Tsutsumi[1,2,3,4], Dr. Yuya HAGA[1,2], Dr. Yudai IKUNO[1], Ms. Mii HOKAKU[2], Dr. Ryotaro TSUTSUMI[5], Prof., Dr. Kazuya NAGANO[5], Dr. Haruyasu ASAHARA[1,2,3], Dr. Hirofumi TSUJINO[1,2,6], Dr. Kazuma HIGASHISAKA[1,2,7]
[1]Grad. Sch. Pharm. Sci., Osaka Univ., Suita, Japan, [2]Sch. Pharm. Sci., Osaka Univ., Suita, Japan, [3]OTRI, Osaka Univ., Suita, Japan, [4]MEI Ctr., Osaka Univ., Suita, Japan, [5]Sch. Pharm. Sci., Wakayama Med. Univ., Wakayama, Japan, [6]Museum Links, Osaka Univ., Suita, Japan, [7]IACS, Osaka Univ., Suita, Japan

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North,
September 18, 2024, 9:00 AM - 10:30 AM

Introduction: There is increasing attention to microplastics (MPs; plastic particles less than 5 mm in diameter) and nanoplastics (NPs; even smaller plastic particles less than 1 µm in diameter) in the environment due to their potential impact on human health. MPs and NPs are detected in the air, ocean, soil, and sediment. In addition, detection of these MPs and NPs in human tissues such as lung, blood, and placenta highlights the urgency of analyzing health risks to humans. However, environmental MPs and NPs exhibit diverse physicochemical properties (size, shape, surface oxidation due to waves and UV radiation). In contrast, laboratory studies often employ uniform MPs and NPs ignoring their complex characteristics in the environment. Since the hazard and kinetics of MPs and NPs are influenced by their physicochemical properties, it is necessary to consider actual environmental conditions in risk analysis. Nonetheless, standardized MPs and NPs samples suitable for such studies are lacking worldwide. Therefore, this study aims to establish libraries of MPs and NPs reflecting their complex environmental characteristics, facilitating integrated safety assessments. This study introduces an overview of the libraries, focusing on the characteristics of Micro- and Nano-Polypropylene (PS), including their safety aspects.

Methods: To produce smaller particles (less than 1 µm), we utilized PS and employed a previously published precipitation-based method. Additionally, Surface-oxidized MPs and NPs were generated through irradiation with vacuum UV light at 172 nm under air to simulate environmental conditions. Utilizing generated MPs and NPs, we tested safety assessments.

Results and Discussion:

We established MPs and NPs of PS considering several size, shape (sphere and fragment) and surface oxidation. Utilizing these MPs and NPs libraries, we examined cytotoxicity test. As a result, surface oxidated MPs and NPs exhibit more cytotoxic than non-surface oxidated MPs and NPs. In this study, we established MPs and NPs libraries reflecting their physicochemical properties in the environment. In the future, we plan to further enlarge the MPs and NPs libraries and accumulate safety assessments. These libraries are available for distribution upon request through future collaboration. Please direct all questions regarding these libraries to Yuya Haga (haga-y@phs.osaka-u.ac.jp).

Heatwave-Health Vulnerability Assessment in Australia: A Countrywide Suburb Level Longitudinal Study

Mr Patrick Amoatey[1], A/Prof Nicholas Osborne[1], Dr Zhiwei Xu[2], Dr Ralph Trancoso[3], Dr Dung Phung[1]
[1]School of Public Health, The University of Queensland, Brisbane , Australia, [2]School of Medicine and Dentistry, Griffith University, Gold Coast, Australia, [3]School of the Environment, The University of Queensland, Brisbane , Australia

3B - Public health systems and transitioning environments, Golden Ballroom Centre, September 18, 2024, 11:00 AM - 12:30 PM

BACKGROUND AND AIM: Extreme heat is a risk factor for deaths and hospitalizations in Australia. However, the extent of long-term variations in heatwave-health vulnerability across Australia is yet unknown. METHODS: We investigated nationwide suburb (Statistical Areal Level 2) level longitudinal heatwave-health vulnerability in Australia using socioeconomic, demographic, and chronic disease variables from 5-year Census estimates (2011, 2016, and 2021 Census) obtained from the Australian Bureau of Statistics. We included landcover data (2003-2020) from the Australian Bureau of Agriculture, Resource Economics and Sciences (ABARES), and temperature data (2001-2020) from the Australian Bureau of Meteorology into the analysis. We applied both multivariate statistical analysis and geospatial modelling techniques to develop the heatwave vulnerability index and examine the factors that affect heatwave vulnerability. RESULTS: We found variability in heatwave-health vulnerability both spatially and temporally across Australia, with higher vulnerability particularly in the Northwest, and the lowest in South-eastern Australia. The suburbs within greater cities had greater temporal changes in heatwave-health vulnerability. Clusters of high vulnerability were evident in Northern and Southern Australia during 2011-2016 but reduced in 2021. In greater cities, high clusters of vulnerability were apparent within Northern Adelaide and Western Melbourne for all the years. Among the heatwave categories (low-intensity, severe, extreme), extreme heatwave days showed a positive association with heatwave-health vulnerability during all five consecutive years. The older people (65 years, and above) and social isolation had a higher risk of heatwave-health vulnerability in 2011. For the remaining five consecutive years, the heatwave vulnerability shifted to suburbs with low education, low income, high diabetes prevalence, and low proportion of healthcare professionals. CONCLUSION: The findings suggest that future Australian heatwave interventions and adaptation programs can be tailored to address these influential factors that drive heatwave vulnerability.

Implementing influenza vaccination requirements for healthcare workers in Victoria

Dr Lyn-li Lim[1,2], Dr Stephanie Tanamas[1], Ms Sarah Bird[3], Mr NIck Wilson[3], Dr Ann Bull[1], A/Prof Leon Worth[1,2], A/Prof Noleen Bennett[1,4]
[1]Victorian Healthcare Associated Infection Surveillance System (VICNISS), at The Peter Doherty Institute for Infection and Immunity, Melbourne, Australia, [2]Uni of Melbourne, Faculty of Medicine, Dentistry and Health Sciences, Parkville, Australia, [3]Immunisation Program, Victorian Department of Health, Melbourne, Australia, [4]Department of Nursing, School of Health Sciences, University of Melbourne, Parkville, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context

In April 2022 the Secretary of the Victorian Department of Health (department) issued Secretary Directions requiring specified healthcare workers in prescribed health settings in Victoria to be vaccinated against influenza by 15 August each year.

The Directions apply to Category A and B healthcare workers (those at highest risk of contracting or transmitting influenza to other healthcare workers and patients) who are employed or otherwise engaged by public and private hospitals, ambulance services and public sector residential aged care facilities.

The influenza vaccine mandate seeks to protect the health and safety of healthcare workers in these services and mitigate the risk of transmission of seasonal influenza to patients.

Aim

To use a mixed-methods approach to explore the early impact of the introduction of the influenza vaccine mandate on the delivery of the healthcare worker influenza vaccination program in Victorian health services.

Method

VICNISS Healthcare Associated Infections Surveillance Coordinating Centre is responsible for coordinating annual program surveillance data on behalf of the department. VICNISS undertook a survey and focus group interviews with health service leads responsible for delivering workplace vaccination programs.

Research findings

We will present quantitative and qualitative outcomes on

1. healthcare worker vaccination coverage, declinations, and unknown status in Victorian public healthcare organisations from 2018 to 2023.
2. the experiences of healthcare worker influenza vaccination program implementers in 2022 and 2023.

Translational outcomes and future actions

This presentation will explore the early impact of the introduction of the influenza vaccine mandate in Victorian health services, describe program leads' experiences of managing the mandate at a local level, and present barriers and enablers to implementation.

Working together to help children with asthma live their best life

Dr Anna Kitunen[1], Professor Sharyn Rundle-Thiele[1]
[1]Griffith University, Nathan, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim: Asthma affects nearly 339 million people worldwide (Global Asthma Network, 2019) and is a leading cause of paediatric hospitalisations (Kenyon et al., 2014; Vicendese et al., 2014). Asthma Australia aims to reduce asthma hospitalisations (Asthma Australia, 2024) therefore, strategies for asthma management need to be informed by the system(s) related to asthma. The Creating Collective Solutions (CCS) process is a systems-based approach uniting different actors to agree on areas of action and identify solutions (Fauville et al., 2018; McHugh et al., 2018). This study aimed to bring stakeholders together to identify and agree upon solutions that could be implemented to help children with asthma to live their best life.

Methods and analysis/research findings: A working group of 8 stakeholders developed a 'trigger question' ("What can we do as a community to support children aged 5-9 years living with asthma on NSW to live their best life?") that was distributed to stakeholders identified by the working group. Stakeholders were asked to list up to 5 actions in response to the trigger question. Over 230 people responded, generating 441 actions. The responses were categorised using the Social Determinants of Health model, leaving 344 unique actions. A workshop was hosted with 20 professionals from 9 stakeholder groups. The workshop featured 68 rounds of voting to reach consensus on 12 actions pictured in an Action Map. The Action Map linked actions demonstrating interrelations between the identified solutions. Improved access to asthma educators would make other actions (e.g. correct techniques and carrying inhalers) easier. Small teams co-designed solutions that emphasised improvements in asthma education and access to materials, ensuring culturally appropriate materials are available.

Translational outcomes: The CCS process has led to a broader needs assessment in NSW including support for children with asthma from non-English speaking communities. This involves continuous consultation with stakeholders, including non-English speaking carers of primary school aged children with asthma.

Future actions: This CCS considered asthma at a State level and future work is needed within PHN or place-based areas to identify actions that can be then be implemented at a local level to prevent hospitalisations for people aged 5-9 years.

Co-designing solutions for better health and performance

Dr Anna Kitunen[1], Associate Professor Julia Carins[1], Professor Sharyn Rundle-Thiele[1]
[1]Griffith University, Nathan, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim: Military bases are required to provide meals to support diners to meet nutritional requirements within allocated resources (Berry & Deuster, 2017). Strategies to address eating behaviours need to be informed by identifying and understanding the needs and preferences of diners. The World Health Organization recommends that segmentation be applied to improve health and wellbeing. Research has identified that preferences differ between segments and segments respond differently to one-size-fits all programs (Dietrich et al., 2015). This study demonstrates preferences for a healthy eating intervention that can be applied in a workplace setting. This study explains how all participants can be allocated into segments to identify program preferences and aims to reveal if identified program preferences vary by segment.

Methods and analysis/research findings: Three co-design sessions were conducted with 73 Australian Defence Force (ADF) early career personnel to uncover solutions to encourage healthy eating at the military base. Participants were allocated into three segments using a short sorting tool (Carins et al., 2022). The aim of co-design sessions was to gain insights on preferred solutions. Analysis revealed that preferences and co-designed programs differed between the segments. The findings indicate that segment 1 preferred holistic advice on health from experts, segment 2 favoured with information on improving productivity and how to cook healthy meals, and segment 3 preferred tailored solutions to improve physical performance.

Translational outcomes: The insights from theoretical testing and co-design were combined with previous research and evidence indicating best practice to build a pilot program. The program focussed on capability and aimed to increase knowledge, skills, and consumption of healthy foods.

Future actions: The effectiveness of intervention approaches that are informed by segments will be tested. Field trials will be used to test whether an intervention catering to segment preferences can outperform a one-size-fits-all intervention approach. A field trial will permit a direct test of the utility of segmentation, and it will enable costs and benefits to be calculated to understand whether additional value is obtained from full application of segmentation.

Identifying determinants influencing the sustainability of health programs in Australian primary schools

Mr Edd Riley-Gibson[1]
[1]University of Newcastle, Newcastle, Australia, [2]Hunter New England Population Health, Newcastle, Australia

3C - Evidence, strategy, and creativity to promote behaviors, policies, and practices, Golden Ballroom South, September 18, 2024, 11:00 AM - 12:30 PM

Title: Identifying determinants influencing the sustainability of health programs in Australian primary schools

Context and Aim: This Australian implementation study aims to uncover the factors that influence the sustainability of school-based physical activity and nutrition programs. The presentation will discuss findings of a distributed survey based on the Integrated Sustainability Framework. The goal is to support the longevity of school-based health programs to garner the most from their respective benefits.
Methods and research findings: A cross sectional study was undertaken with 201 Australian primary schools currently implementing physical activity and nutrition programs. Factors perceived to be influential to program sustainment were assessed using a 28-item measure of sustainability determinants developed by the research team. This reflected five domains of the Integrated Sustainability Framework. A 5-point Likert scale was used, and domain scores were calculated for each school by averaging item responses. Determinants were ranked according to their perceived influence on program sustainment. Linear mixed regressions were conducted to evaluate associations between measure domains and length of program delivery, and ordinal analysis was conducted to compare program type to categories of sustainment. Preliminary findings indicate an average program sustainability of 7.4 years, with differences observed between physical activity and nutrition programs. Top determinants influencing program sustainment varied between physical activity and nutrition programs, highlighting contextual specificity.
Translational outcomes: The study provides critical insights into sustaining school-based health programs, emphasising the need for tailored strategies to address program-specific challenges. Understanding distinct determinants enables targeted strategies to support program sustainment and maximise health outcomes.
Future actions: Future efforts should prioritise developing sustainability strategies tailored to the unique challenges faced by physical activity and nutrition programs in school settings, with emphasis on outer contextual factors such as leadership support and funding availability.
Learnings: The study underscores the importance of considering context-specific determinants in sustaining health program delivery, offering valuable lessons for policymakers and practitioners involved in school-based health initiatives. Addressing identified determinants can enhance the effectiveness and longevity of school-based physical activity and nutrition programs, contributing to improved population health outcomes.

Low iron among children within the ORIGINS birth cohort

Dr Zenobia Talati[1], Dr Nina D'Vaz, Dr Kira Fallows, Dr Sarah Whalan, Dr Jamie Tan, Dr Desiree Silva
[1]Telethon Kids Institute, Nedlands, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim: Iron deficiency is the largest factor contributing to anaemia in all paediatric age-groups and is associated with a number of conditions which include developmental and adverse neurocognitive outcomes, sleep disorders, periodic limb movement disorder, ENT disorders, increased anxiety levels, depression and problematic behaviours associated with inattentiveness and social interactions.

Methods and analysis/research findings: The ORIGINS Project is a longitudinal pregnancy and birth cohort. The active sample comprises n =3,448 women and 3,806 children who were recruited antenatally and at birth and are now being followed up at regular timepoints throughout childhood. Blood samples are taken during clinic appointments from children aged 1, 3 and 5-years. Unexpectedly, high rates of iron deficiency were observed among ORIGINS children at 1 and 3-year visits. Specifically, 38% of 1 year olds (229/609), 54% of 3 year olds (358/658) and 41% of 5 year olds (137/333) had very low ferritin levels (<20µg/L).

Translational outcomes: Upon detection of the high prevalence of low iron and in order to increase blood-draw compliance during clinic appointments, The ORIGINS Project started offering families feedback on ferritin and full blood counts, with paediatric advice for iron supplementation and GP follow-up, if iron deficiency was detected. Coeliac serology is also conducted on children meeting the low iron threshold (<20µg/L) with a referral to a gastroenterologist if needed. Provision of these results has been well received by families.

Future actions: Research is now being conducted within the ORIGINS cohort to investigate the associations of iron deficiency with health, developmental, behavioural and sleep issues, and quality of life in childhood. The study will also evaluate the acceptability and efficiency of iron supplementation in 1-5-year-old children diagnosed with iron deficiency, including barriers and enablers to parents using supplementation. This study will provide important information on whether routine iron screening and monitoring should be recommended for young children. Additionally, the parent-focused approach will ensure that any recommendations for supplementation will have a high success rate.

National Health and Climate Strategy: climate change and health systematic mapping review

Miss Phoebe Spurrier[1], Dr Georgia Behrens[1], Professor Sotiris Vardoulakis[2], Dr Enembe Okokon[2], Dr Luise Kazda[2], Ms Daniela Espinoza Oyarce[2], Ms Gopika Indu[2], Dr Kinley Wangdi[2], Dr Nigel Goodman[2], Dr Veronica Matthews[2], Dr Rebecca Haddock[2], Professor Alexandra Barratt[2], A/Professor Forbes McGain[2], Mr Murray Turner[2]

[1]National Health, Sustainability and Climate Unit, Australian Federal Department of Health and Aged Care, Canberra, Australia, [2]Healthy Environment and Lives Network, Canberra, Australia

1B - Health ramifications of climate change, Golden Ballroom Centre, September 17, 2024, 1:30 PM - 3:00 PM

Australia’s first National Health and Climate Strategy (the Strategy) was launched in December 2023, and includes ‘research and innovation’ as a key enabler for achieving its vision of ‘healthy, climate-resilient communities and a sustainable, resilient, high-quality, net zero health system.’ To inform the prioritisation of future research funding and support development of the Australian climate and health evidence base, the Australian Government has commissioned a systematic mapping review of current and past Australian research activities on health and climate change. This presentation will share insights from the review, which sought to map and thematically understand the existing research on policies and interventions related to health and climate change adaptation and mitigation in Australia, and identify any evidence gaps that could be addressed by future research in this area.

This presentation will include a summary of results from the review; a discussion of the need for solutions-focused research on climate and health policies and interventions; and reflections on ways of working that led to the successful collaboration between the public sector and academia to deliver this project. The presentation will also include an overview of the Strategy and its implementation.

Co-development of the WA Food Atlas: a case study for Multi-Sector Collaboration

Mrs Frith Klug[1], Dr Paula Hooper[1,5], Dr Claire Pulker[1,2], Professor Gina Trapp[1,3,4], Lucy Meredith Butcher[6]
[1]Nutrition and Health Innovation Research Institute, School of Medical and Health Sciences, Edith Cowan University, Joondalup, Australia, [2]School of Population Health, Curtin University, Perth, Australia, [3]Telethon Kids Institute, The University of Western Australia, Crawley, Australia, [4]School of Medicine, The University of Western Australia, Crawley, Australia, [5]School of Design, The University of Western Australia, Crawley, Australia, [6]East Metropolitan Health Service, Perth, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim:
The role of local governments (LGs) is critical in fostering healthier food environments through public health plans (PHPs), policies and actions. However, addressing the food environment in PHPs is hampered by LGs lacking comprehensive, quantifiable, evidenced-based information regarding food provision and access. To address this issue, the WA Food Atlas tool was collaboratively designed through multi-sector partnerships. The process, insights and outcomes from this co-design undertaking will be shared.

Methods and research findings:
This project brought together a multi-disciplinary team of researchers with expertise in nutrition, public health, environmental health, urban planning, geography, spatial science and geographic information systems, data management and computer science. LG stakeholder collaboration involved multiple methods to ensure comprehensive fit-for-purpose outcomes, including stakeholder workshops and user experience sessions designed to collect diverse viewpoints, validate data and facilitate iterative design enhancements. This approach led to the development of an evidence-based tool funded by Healthway (the WA Food Atlas) that is both robust and practical for LG use. The WA Food Atlas maps, measures and monitors food access across communities using food business data routinely collected and stored by LGs. It offers comprehensive geospatial food access metrics and interactive maps, providing objective evidence that LGs can use to inform their PHPs.

Translational outcomes:
The WA Food Atlas currently includes two timepoints, 2019 and 2022, for metropolitan Perth LGs (n=32), profiling access to fast-food and fruit and vegetables outlets. The WA Food Atlas is being used by LGs to initiate discussions on food access, trends, priorities and gaps. It provides clearer oversight of food business operations to enhance food regulation, policymaking and surveillance systems. It supports decision-making processes, generates local evidence for crafting obesity prevention and intervention strategies and developing comprehensive PHPs and policies.

Future actions:
Going forward, it is essential to continue the multi-sector collaboration to ensure the Food Atlas is continually updated and remains useful for LGs. Integrating new food business data time points, including health metrics, bespoke data sets (e.g., food insecurity) and expanding it Australia-wide will allow the analysis of broader patterns and correlations, further enhancing the utility and relevance nationally.

Mental Health Problems Experienced by Adolescents Living in South Asia

Ms Chethana Mudunna[1], Ms Medhavi Weerasinghe[1], Doctor Thach Tran[1], Doctor Josefine Antoniades[2], Ms Lorena Romero[3], Professor Miyuru Chandradasa[4], Professor Jane Fisher[1]
[1]Monash University, Melbourne, Australia, [2]National Ageing and Research Institute, Parkville, Australia, [3]The Ian Potter Library, Alfred Health, Melbourne, Australia, [4]University of Kelaniya, Ragama, Sri Lanka

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Adolescence is a sensitive phase of human development where individuals are particularly vulnerable to developing mental health problems (MHPs). A disproportionate amount of young people live in low-and-middle income countries (LMIC), where a majority of the people living with mental health problems across the globe reside. South Asia, comprised of LMICs, has dearth population wide data on adolescent mental health. Therefore, this systematic review aims to review the evidence about the nature, prevalence and determinants of mental health problems experienced by adolescents living in South Asia.

Searches were conducted in four online databases. Two independent reviewers performed title, abstract, full-text screening, data extraction and quality assessments. Extracted data were categorised into two groups: school-based studies (SBS) and non-school-based studies (NSBS). Data were further stratified according to country and condition and narratively synthesised.

Of the 5847 records identified in the searches, 117 met the inclusion criteria. Most (n= 87) were SBS. In these, highest prevalence ranges were reported for anxiety disorders in India (1.5-81.6%). In NSBS (n=30), highest prevalence estimates were for depression in India (0.4-98.5%). Determinants/ associated factor groups include individual characteristics; violent victimisation; poor family/home/school environment or peer relationships; already experiencing MHPs and substance use/abuse. Increased physical activity, adequate nutrition, safe homes, being unmarried females, higher maternal education, positive family environment, peer support/friendship, higher education level and engaging in extra-curricular activities showed a positive correlation with mental well-being.

Prevalence of MHPs among South Asian adolescents are substantially higher than those reported in high-income countries. Determinants include social, cultural, environmental and socioeconomic factors often beyond individual control. Protective factors show a potential starting point for mental health policies, programs and future research. Population level epidemiological data incorporating research methods appropriate to the cultural context is also needed.

Trends of dexamphetamine treatment for ADHD in pregnant Western Australian women

Ms Danielle Russell[1], Dr Caitlin Wyrwoll[1], Dr David Preen[1], Dr Erin Kelty[1]
[1]The University Of Western Australia, Crawley, Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Importance: Women are being diagnosed with attention deficit hyperactivity disorder at an increasing rate and are likely to be prescribed dexamphetamine as a treatment method in Australia. This indicates the potential for unplanned pregnancies to be exposed to dexamphetamine. It is vital to understand trends associated with dexamphetamine exposure during pregnancy so that potential risks may be evaluated and appropriate at-risk groups identified.

Objective: To examine trends and patterns in dexamphetamine use during pregnancy.

Design, Setting, and Participants: A population-based retrospective cohort study of Western Australian women who gave birth between 2003-2018. These women were dispensed dexamphetamine or lisdexamphetamine during their pregnancies.

Main outcomes: Prevalence of exposure to dexamphetamine during pregnancy was analysed by trimester, remoteness of the women and maternal age were analysed by time-trend analysis using the Joinpoint Regression Program, version 5.0.2 – May 2023.

Results: Overall, there has been an increase in the prevalence of dexamphetamine exposure during pregnancy, with a significant increase from 2003 to 2007. This trend can also be seen in each trimester. Age categories saw differing trends, with those with a maternal age of 25 years and under seeing a decrease in pregnancy exposure from 2007 to 2018, whilst the other age groups had an increase. Levels of remoteness also had differing trends, with those who live in rural settings showing an increase in dexamphetamine exposure during pregnancy from 2003 to 2007 followed by a reduction until 2010 and then an increase until 2018. Those who live in an urban dwelling have had an increase in the prevalence of dexamphetamine exposure during pregnancy, particularly between 2003-2011.

Conclusion and relevance: The overall increase in the prevalence of dexamphetamine exposure during pregnancy indicates a need to further investigate the safety of this medication during pregnancy. The differing trends seen in remoteness and maternal age indicate unique differences that require further research to determine if these groups have a potential for differing risks.

Effects of outdoor air pollution on cardiovascular disease hospitalizations in Mongolia

Ms. NANDIN-ERDENE BAYART[1,2], Mr. Gavin Pereira[1,3], Mr. Christopher Reid[1,4], Mrs. Krassi Rumchev[1,3]
[1]Curtin School of Population Health, Curtin University, Kent Street, Bentley, Australia, [2]Mongolian National University of Medical Sciences, Ulaanbaatar, Mongolia, [3]enAble Institute, Curtin University, Kent Street, Bentley, Australia , [4]4School of Public Health & Preventative Medicine, Monash University, Melbourne, Australia

1B - Health ramifications of climate change, Golden Ballroom Centre, September 17, 2024, 1:30 PM - 3:00 PM

Background: Cardiovascular diseases (CVD) are one of the leading causes of mortality and morbidity globally, and ambient air pollution is a modifiable factor for CVD. This study aimed to evaluate associations between outdoor air pollution and CVD hospitalizations, including ischaemic heart diseases (IHD) and stroke in Ulaanbaatar City, Mongolia.

Methods: We collected daily hospital admission records, air quality, and meteorology data between January 1, 2016 and December 31, 2022. The relative risks (RRs) of cause-specific hospitalizations associated with daily concentrations of six criteria air pollutants were estimated by a time-stratified case-crossover design.

Results: For each interquartile range (IQR) increase in PM2.5, PM10, SO2, NO2 and CO, the risk of CVD admissions increased by 0.5 % (RR=1.005; 95% CI: 0.998, 1.012), 2.9 % (RR=1.029; 95% CI: 1.014, 1.044), 2.5 % (RR=1.025; 95% CI: 1.010, 1.040), 4.1 % (RR=1.041; 95% CI: 1.016, 1.068) and 0.3 % (RR=1.003; 95% CI: 0.995, 1.012), respectively. Subgroup analyses demonstrated that women had a greater risk of CVD hospitalizations compared to men, and higher in people aged <65 years than those aged ≥65 years. The RRs of total CVD admissions associated with PM10, NO2, SO2, and CO exposures were higher in the cold season than in the warm season and in the new coal briquette consumption period compared to raw coal burning.

Conclusion: We found that short-term exposure to air pollutants, except O3, was positively associated with an increased risk of CVD, IHD, and stroke admissions. However, significant associations were found between exposures to PM10, SO2, NO2, and hospitalizations only for CVD and stroke (P-value<0.05). Despite consuming new types of coal briquettes, outdoor air pollution in Ulaanbaatar remained higher than the World Health Organization’s guidelines. Based on our research findings, we recommend transitioning to cleaner fuels or adopting alternative efficient methods that have been successfully implemented in developed nations.

Keywords: air pollution, hospital admission, cardiovascular disease, stroke, Mongolia.

Ambient air pollution and cardiovascular disease mortality: a systematic review and meta-analysis

Ms. NANDIN-ERDENE BAYART[1], Mrs. Yun Zhao[1], Mr. Christopher Reid[1,3], Mr. Gavin Pereira[1,4], Mr. Sylvester Dodzi Nyadanu[1,5]
[1]Curtin School of Population Health, Curtin University, Bentley, Australia, [2]School of Nursing, Mongolian National University of Medical Sciences
, Ulaanbaatar, Mongolia, [3]School of Public Health & Preventative Medicine, Monash University, Melbourne, Australia, [4]enAble Institute, Curtin University, Bentley, Australia, [5]Education, Culture, and Health Opportunities Ghana, ECHO Research Group International, Aflao, Ghana

1B - Health ramifications of climate change, Golden Ballroom Centre, September 17, 2024, 1:30 PM - 3:00 PM

Background: Cardiovascular diseases (CVD), including ischemic heart diseases (IHD) and stroke, are the leading cause of mortality worldwide, whereas ambient air pollution is one of the biggest public health concerns in many countries, particularly in low- and middle-income countries (LMICs). However, exposure to outdoor air pollution is causally related to CVD mortality remains inconsistent. This systematic review and meta-analysis was conducted to analyze the current evidence of short-term exposure to six criteria air pollutants on mortality for CVD, IHD, and stroke in LMICs.

Methods: PubMed via Medline, EMBASE, Scopus, and Web of Science were searched using keywords and medical subject headings (MeSH) from the start date until March 2024. Screening, data extraction, and risk of bias assessment were completed by two reviewers. Any conflicts between reviewers were resolved through consensus or consultation with a third reviewer. The protocol of this review was registered with PROSPERO under CRD42021249413. Relative risks (RRs) per 10 µg/m3 increase in concentrations of air pollutants were used as the pooled effect estimates. Heterogeneity between the studies was assessed by I2 statistics and the Q test. Risk of bias (RoB) in individual studies was evaluated by a new domain-based assessment tool, developed by the World Health Organization's working group, which was specifically designed to evaluate RoB for time-series and case-crossover studies. Publication bias was assessed by using Funnel plots and Egger's test. Therefore, we conducted subgroup analyses by age, sex, and two seasons (warm versus cold).

Results: We found positive associations between air pollutants and CVD mortality for PM2.5 (RR=1.008; 95% CI: 1.005, 1.011), PM10 (RR=1.007; 95% CI: 1.005, 1.010), SO2 (RR=1.006; 95% CI: 1.004, 1.009), NO2 (RR=1.011; 95% CI: 1.009, 1.014), CO (RR=1.011; 95% CI: 1.002, 1.020); and O3 (RR=1.003; 95% CI: 1.001, 1.005). These studies were heterogeneous; however, there was insufficient evidence of publication bias (Egger regression test, p>0.05). These air pollutants were positively associated with IHD and stroke mortality; however, CO and O3 pollutants were not significantly associated with stroke mortality.

Conclusion: This meta-analysis found evidence of positive associations between short-term exposure to ambient air pollution and mortality for CVD, IHD, and stroke.

Free nicotine replacement therapy and specialist support through community pharmacies: lessons learned

Mrs Cheryn Coleman[1], Dr Satish Melwani[1], Professor Stuart G Ferguson[1], Dr Rosie Nash[1]
[1]Tasmanian School of Medicine, College of Health and Medicine, University of Tasmania, Hobart, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

Tobacco smoking is a leading cause of preventable death and disease worldwide and disproportionately affects people living in lower socioeconomic areas. A pilot programme trialling the provision of free nicotine replacement therapy (NRT) to priority populations through community pharmacies was funded by the Tasmanian Department of Health. This study evaluates the feasibility of this approach.

A sequential explanatory mixed methods approach was used to evaluate engagement with the programme and provide insight into the experiences, barriers and/or facilitators towards free NRT and specialist support through community pharmacies. Two groups were involved in the programme: community pharmacists and people who smoke cigarettes. Eight pharmacists administered the programme to completion. A total of 55 eligible smokers were recruited to the 24-week programme. At the conclusion of the programme a subset of participants, 7 pharmacists and 10 smokers, completed semi-structured interviews. Engagement and process data collected by pharmacists were interpreted using descriptive statistics and basic analysis. Qualitative data collected through interviews were analysed using reflexive thematic analysis.

Of the 55 recruited smokers, 15 (27.3%) were still engaged with the programme at 24 weeks. Pharmacists reported finding the experience rewarding but felt constrained by external factors, such as having to fit the service in around other tasks. Adequate remuneration for service provision was seen as an important incentive to pharmacist service delivery. The pharmacists reflected that their existing relationships with their customers supported the programme success. Smokers reported few barriers to the programme itself, but reported that life circumstances, access to healthcare, as well as social norms created barriers to quitting smoking more generally.

Overall, pharmacists were supportive of the initiative and smokers appreciated the service. Smokers recognised that removing the barrier of finance and making smoking cessation services accessible through pharmacies was beneficial. Based on the data collected, it is recommended that where possible future cessation programmes aimed at priority populations: offer access to free—or highly-subsidised—treatments; provide choice and a range of treatment options; adequately remunerate health professionals involved; provide greater flexibility in the service delivery; utilise existing software and technology to assist workflow; and actively promote services available to smokers.

Children's views on outdoor advertising of unhealthy food and beverages near schools

Dr Jacinta Francis[1,2,3], Ms Elizabeth Ross[3,6], Dr Claire Pulker[1,2], Professor Karen Martin[2], Professor Sally Brinkman[5], Associate Professor Paula Hooper[1,2], Ms Joelie Mandzufas[1,2,3], Ms Justine Howard[4,7], Professor Gina Trapp[1,2,3]
[1]Edith Cowan University, Perth, Australia, [2]The University of Western Australia, Perth, Australia, [3]Telethon Kids Institute, Perth, Australia, [4]Curtin University, Perth, Australia, [5]University of South Australia, Adelaide, Australia, [6]WA Health Department, Perth, Australia, [7]The University of Notre Dame Australia, Perth, Australia

3D - Research insights: Indicating policy change, Hamersley, September 18, 2024, 11:00 AM - 12:30 PM

Context and Aim: Previous research has shown that children living in Perth, Western Australia, experience a high level of exposure to unhealthy outdoor food advertisements during the school commute. This exposure can have negative public health consequences given childhood weight gain has been linked to the marketing of energy-dense and nutrient-poor foods. The Children's Rights agenda recognises that children have a right to be consulted about environments and policies that affect them. This world-first study aimed to explore schoolchildren's lived experiences and attitudes towards the outdoor advertising that surrounds their schools.

Methods and Analysis: Seven focus groups with children aged 10 – 16 years (n=47) attending Perth schools located in areas with a high density of unhealthy outdoor advertising were conducted between July and October 2023. The focus groups explored schoolchildren's experiences of outdoor advertising during their school commute; the influence of this advertising on their food preferences and diet; whether they thought outdoor advertising was an issue that needed addressing; and if so, strategies to reduce outdoor advertising of unhealthy food and beverages. Focus groups were recorded and transcribed verbatim. A thematic analysis of the data was undertaken in NVivo.

Findings: Study participants were aware of outdoor advertising of unhealthy food and beverages near their school, with many reporting that outdoor advertising impacted their food preferences and diet. Many participants felt it was unethical to advertise unhealthy food and beverages around schools and strongly supported restricting alcohol advertising within school precincts. Participants suggested a range of strategies to manage outdoor advertising of unhealthy food and beverages, including banning these advertisements on public transport.

Translational Outcomes: This study drew on children's voices to create new knowledge and translation opportunities regarding the outdoor marketing of unhealthy food near schools. The study findings have informed advocacy campaigns calling on the Western Australian government to restrict all junk food and alcohol advertising on government property.

Future Actions: These findings have the potential to impact State and local government policies affecting children's exposure to unhealthy outdoor advertising, serving as a crucial strategy in the fight against childhood obesity and reduced alcohol intake in children.

Mapping mobile food environments: Food trucks hosted by local governments in 2022

Janelle Longo[1], Clare Whitton[2], Kirsten Beckingham[3], Associate Professor Paula Hooper[2], Amy Large[1], Dr Lucy Butcher[1], Catrinia McStay[4], Dr Claire Pulker[2]
[1]East Metropolitan Health Service, East Perth, Australia, [2]Edith Cowan University, Joondalup, Australia, [3]City of Armadale, Armadale, Australia, [4]Telethon Kids Institute, Nedlands, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

Mobile food vendors are a growing but poorly understood component of community food environments in Australia. Existing research on food environments has mainly focussed on mapping the locations of traditional food businesses and little attention has been given to monitoring the mobile food vendor industry. This study assessed the practicality and usefulness of tracking mobile food vendor attendance at community events in East Metropolitan Perth in 2022.

Thirteen Local Government Authorities (LGAs) were asked to provide information on mobile food vendors that attended community events in 2022. A database was constructed, and descriptive statistics calculated. Vendors were classified as primarily selling beverages, desserts, or meals, and whether they had been Certified Healthier Vendors according to Healthway's traffic light system.

There were 74 community events held across 11 LGAs in East Metropolitan Perth in 2022, with a total of 224 different mobile food vendors participating. On average, each event hosted 14 vendors, though this ranged from 1 to 54. Only a small percentage (14%) of vendors attended 10 or more events that year, and just nine of them (4%) were Certified Healthier Vendors.

LGAs have an important role in selecting and recruiting mobile food vendors for their community events which can attract large numbers of the public, influencing the food and drink available. Under the Public Health Act 2016, LGAs in Western Australia have a statutory responsibility for protecting community health and wellbeing. Through the Act, LGAs have the power to influence types of foods and drinks available at community events, and many LGAs have public health plans which include actions to improve access to healthy options at community events.

Incorporating mobile food vendors into the geospatial mapping of community food environments is important. Identifying mobile food vendors that attend community events more frequently could help target health promotion interventions effectively. Mapping their attendance is feasible and can provide valuable insights for public health strategies. Given the frequency and scale of community events, further monitoring and research are necessary to determine the appropriate public health response.

Depression increases the risk of osteoporosis and fracture in Australian women.

Dr Abhijit Chowdhury[1], A/Prof Mark McEvoy[1]
[1]The University of Newcastle Australia, Callaghan, Australia

1B - Health ramifications of climate change, Golden Ballroom Centre, September 17, 2024, 1:30 PM - 3:00 PM

Previous studies found an association between depression and osteoporosis and/or fracture in adults; however, the relationship is under-researched in Australia. This longitudinal study examined osteoporosis and fracture risk among middle-aged Australian women with depression.

We analysed survey and linked Pharmaceutical Benefits Scheme (PBS) data of 11,226 women from the Australian Longitudinal Study on Women's Health (ALSWH) who were born from 1946 to 1951 and followed up from 2001 to 2019. Depression was defined by affirmative answers to the survey question- "In past three years, have you been diagnosed or treated for: Depression?" Osteoporosis was defined by the first prescription date of any antiosteoporosis medications from PBS. Fracture was defined by the affirmative answers to the survey question- "In the last 12 months, have you: Broken or fractured any bone/s?" Fine-Gray competing risk regression model was used with death as a competing risk to examine osteoporosis and fracture risk among women with depression. Directed Acyclic Graphs were used to select potentially confounding variables

.

1,263 (11.4%) women reported depression at the baseline survey. Women reporting a diagnosis or treatment of osteoporosis before baseline were excluded from the analyses. Both unadjusted (SHR: 1.09; 95% CI: 1.04-1.15; p= 0.001) and adjusted (SHR: 1.08; 95% CI: 1.02-1.14; p= 0.012) models showed increased events of osteoporosis among women with depression than women without depression. Both unadjusted (SHR: 1.44; 95% CI: 1.36-1.52; p= <0.001) and adjusted (SHR: 1.34; 95% CI: 1.26-1.43; p= <0.001) models also showed increased fracture events among women with depression than women without depression.

We concluded that among the middle-aged women of the ALSWH 1946-1951 birth cohort, depression increased the risk of osteoporosis and fracture in eighteen years. The results highlight the importance of regular bone health screening among adult women living with depression to prevent fracture-related morbidity and mortality in the community.

Births to Aboriginal and non-Aboriginal teenage mothers with exposure to maternal incarceration

Dr Megan Bell[1], Prof Matthew Spittal, Prof Leonie Segal, Prof Susan Dennison, Prof Stuart Kinner, Prof David Preen
[1]University Of Western Australia, Perth, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

Teenage motherhood is an important public health issue due to an associated increased risk of adverse neonatal and maternal outcomes. There is ample evidence that childhood adversity is associated with teenage motherhood. Parental incarceration is a recognised childhood adversity that has been increasing in prevalence due to the escalating global rate of female incarceration. However, the incidence of teenage motherhood in females exposed to parental incarceration is unknown. This study examined whether adolescent females whose mothers were incarcerated had a greater likelihood of teenage motherhood compared to non-exposed adolescent females.

The study sample included 12,629 Western Australian females aged ≥12 years who did (n=3703) or did not (n=8926) have exposure to maternal incarceration. We compared the rate of births to teenage mothers for exposed and non-exposed females and used Kaplan-Meier plots to estimate the unadjusted probability of births for each group. We ran multivariate Cox proportional hazards regression models to estimate the risk of births to teenage mothers with versus without maternal incarceration exposure, stratified by Aboriginal ethnicity. Proportions of babies born preterm, low birthweight, and requiring additional antenatal care were also compared amongst groups.

The unadjusted rate of births to teenage females exposed to maternal incarceration was 2.23 (95%CI = 2.03, 2.44) times higher than the rate among non-exposed females. After adjustment for sociodemographic risk and adversity factors, maternal incarceration was associated with an increased risk of teenage motherhood for both non-Aboriginal (aHR=2.60, 95%CI=1.89, 3.58) and Aboriginal (aHR=1.26, 95%CI=1.11, 1.43) females. Babies born to teenage mothers had equivalent neonatal outcomes regardless of maternal incarceration exposure.

Maternal incarceration was the strongest risk factor of all included variables for teenage motherhood amongst non-Aboriginal females. Results for Aboriginal females were more moderate, but still demonstrated an increased risk associated with maternal incarceration. Provision of timely and sensitive support services to address adversity and disadvantage for all children of incarcerated mothers may help to address the high rate of teenage motherhood in this population and contribute to interrupting intergenerational cycles of disadvantage.

Is social media effective for recruiting adolescents to the Health4Me RCT?

Miss Rebecca Raeside[1], Miss Allyson Todd[1], Dr Stephanie R Partridge[1], The Health4Me Team[1]
[1]Susan Wakil School of Nursing, Faculty of Medicine and Health, University Of Sydney, Camperdown, Australia

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem/issue that requires public health action?
Digital preventive interventions can reach adolescents in everyday settings like social media. Previous research on recruitment compares social media to in-person strategies. It is unknown whether social media alone is effective to recruit adolescents to clinical trials. Our study evaluates the effectiveness of social media recruitment strategies and investigates reasons for non-participation in the Health4Me Study.

What do we know or have we learned to address this problem/issue, and how has this finding been derived?
Data included recruitment screening logs, social media advertisement data and participant characteristics (age, gender, body mass index [BMI], school attendance). Data were analysed using descriptive statistics and Chi-squared tests.

Within 12 months, 2369 expression of interest (EOI) forms were completed; of these 2166 participants (91.4%) heard about the study through social media. Among respondents, 927 (39.1%) were eligible and 390 (16.5%) enrolled. Seventeen recruitment ads (Facebook, Instagram) ran for 146 days total (range 2-18 days). Ads reached 408,077 unique accounts. Ads mostly reached those living in populous states (NSW, QLD, VIC) (75% of unique accounts) and females (43.5% of unique accounts). 25% of ads were delivered to uncategorised genders.

Differences in screening characteristics between eligible participants who did and did not enrol were found to be statistically significant for gender and recruitment method. Specifically, gender differences were significant ($p=.02$), with fewer males and more individuals in the 'other' category enrolling than expected. Additionally, the recruitment method was significant ($p<.001$), with fewer participants enrolling through Instagram than expected and more enrolling through other methods (e.g. word of mouth).

How has this been used in practice?
Virtual clinical trials have the potential to increase participation (given in-person services are limited) and reduce inequalities in healthcare. Social media ads were effective for recruiting adolescents which reached all states/territories, and hard-to-reach populations.

What actions should we take in the future to address the problem/issue?
Future action is needed to build trust regarding recruitment to clinical trials on social media, particularly among males. Co-creating clinical trial design and delivery, including recruitment strategies, are important to address this issue.

Neonatal abstinence syndrome in the infants of women experiencing incarceration

Dr Megan Bell[1], Dr Erin Kelty, Prof Leonie Segal, Prof Susan Dennison, Prof Stuart Kinner, Prof Sharon Dawe, Prof Matthew Spittal, Prof David Preen
[1]University Of Western Australia, Perth, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

There is a high prevalence of substance use amongst incarcerated women; however, the risk of neonatal abstinence syndrome (NAS) amongst infants born to women incarcerated during pregnancy is unknown. This study examines the incidence of NAS in infants born to women incarcerated during pregnancy and those with a recent history of incarceration.

Infants born between 1985 and 2011 in Western Australia were divided into three mutually exclusive groups: born to women incarcerated during pregnancy (n=708); born within 9-24 months of the mother’s release from prison (n=651); born to women who were never incarcerated (n=17,712). Odds of NAS were compared using logistic regression. Differences in outcomes according to the timing of incarceration during pregnancy were also examined.

The odds of NAS in infants born to currently or recently incarcerated women were 55-times and 58-times the odds of infants in the non-exposed group, respectively. The difference in odds of NAS between the two prison groups was not statistically significant. Infants born to women incarcerated during the 2nd trimester had two-times increased odds of NAS compared to infants born to women incarcerated during the month of birth.

The findings show that babies born to currently or formerly incarcerated women are equally likely to experience NAS. Women incarcerated during the 2nd trimester and released prior to birth have increased odds of birthing a baby with NAS compared to women who are still in prison around the time of birth.

Enhanced maternal health care must be provided during incarceration and after release. Ensuring continuity of antenatal care for pregnant women recently released from prison is essential. Additional screening may also be warranted to identify pregnant women in the community who have a history of incarceration, with the aim of providing additional education and supports around substance use.

Australian men’s help seeking behaviour for sexual dysfunction

Dr Zelalem Mengesha[1], Mr Adugnaw Alem, Dr Tesfaye Gebremedhin, Dr Alex Hawkey
[1]University Of Canberra, Bruce, Australia

5B - Health promotion and sustainability, Golden Ballroom Centre, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim: Sexual dysfunctions are prevalent in the Australian population, affecting over half of men regardless of age and sexual identity. They can have significant impacts on men's physical health, mental well-being, and quality of life if left untreated. The present study aimed to examine the trends of sexual dysfunctions and factors associated with sexual help seeking behaviour among a cohort of Australian men.

Methods: Four waves of longitudinal data from the Australian Longitudinal Study on Male Health (Ten to Men) were used for this analysis. We included adult men aged 18 and above who had engaged in vaginal, oral, or anal sex, resulting in a total sample size of 12,737 (wave 1), 8,933 (wave 2), 6,991 (wave 3), and 5,804 (wave 4) men for our analysis. Logistic regression was employed to identify factors associated with sexual help seeking behaviour.

Results: The results reveal a significant rise in the prevalence of experiencing at least one form of sexual difficulty, climbing from 54.1% (95% CI: 52.7, 62.5) in 2013/14 to 64.7% (95% CI: 62.8, 66.7) in 2022. The increase was most pronounced among men from culturally and linguistically diverse backgrounds which increased from 42.8% (95% CI: 38.1, 47.5) in 2013/14 to 61.5% (95% CI: 55.6, 67.1) in 2022. Only approximately one-fifth of men sought assistance for their sexual health concerns with no significant improvement over the study period. Number of sexual difficulties, age, sexual identity, relationship status, conformity to masculine norms, depression, and number of financial hardships were factors significantly associated with sexual health seeking behaviour.

Translational outcomes: Although the burden of sexual dysfunctions has been increasing among Australian men, only few have sought help suggesting a significant level of unmet sexual health needs. This underscores the necessity for co-designed sexual health services, informed by an intersectional approach, to better engage men and meet their distinct needs and preferences.

Is Tuberculosis Infection Screening and Treatment in Primary Care possible in Australia?

Dr Madhumati Chatterji[1], Dr Leah Sharman, Dr Chris Coulter, Dr Andrew Smirnov
[1]University of Queensland, Herston, Australia

3D - Research insights: Indicating policy change, Hamersley, September 18, 2024, 11:00 AM - 12:30 PM

Context and aim:
Tuberculosis (TB) remains a global public health problem with over 10.4 million cases and 1.6 million deaths annually. In low burden countries most cases of TB disease result from progression of the latent stage, TB infection (TBI). The at-risk population for TBI in Australia includes those born overseas in high TB burden countries, persons with immune compromised conditions, and Aboriginal and Torres Strait Islander peoples. Despite the low (but inequitable) disease burden, mathematical modelling indicates that Australia is unlikely to meet the World Health Organization TB elimination targets. Innovative strategies are necessary to prevent progression to active disease. A scoping review and stakeholder survey are presented, which iteratively explore a model of care for TBI screening and treatment in primary care in Australia.

Methods and analysis/research findings:
The scoping review explored evidence for models of care for TBI screening and treatment in primary care globally. Eight databases were searched, identifying 12,536 records; 8 articles met inclusion criteria. Studies indicate that TBI screening and treatment is feasible in primary care when supported by a robust referral system and community mobilisation, strengthening partnerships across community, education, research, governments, primary and specialist care. However, challenges exist at every step of the screening care cascade. The online stakeholder survey (n=45) of clinicians, policy makers, and researchers in Australia, sought views on TBI screening and treatment in primary care. Most participants believed that primary care is best placed for screening and treatment. However, they identified the need for additional resources, staff training and incentives, and systems endorsements in primary care for eligibility to offer screening tests and prescribe TBI medications, and specialist support where needed.

Translational outcomes and Future actions:
These findings suggest that primary care in Australia is an appropriate setting for TBI screening and treatment, and may provide a means of reaching elimination targets, if necessary supporting measures are provided. Lessons learnt from the translational research will contribute to policy change. Further studies are required to establish the feasibility, acceptability, and effectiveness of systematic, targeted screening of at-risk individuals in the Australian context.

Urban-rural inequality in quality antenatal care in Bangladesh and Pakistan: decomposition analysis

Ms Farjana Misu[1], Ms Taslima Rahman[1], Mr Dominic Gasbarro[1], Mr Khurshid Alam[1]
[1]Murdoch University, Perth, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Abstract

Background:

Urban-rural inequality in the utilization of quality antenatal care (ANC) is a well-documented challenge in low- and middle-income countries, such as Bangladesh and Pakistan, limiting utilization of maternal healthcare service and impeding progress towards achieving the Sustainable Development Goals. Therefore, our study focuses on uncovering the key factors contributing to the urban-rural inequality in the utilization of quality ANC in Bangladesh and Pakistan and also demonstrates inter-country differences.

Methods:

We used nationally representative data from the latest Demographic Health Surveys (2017-2018) of Bangladesh and Pakistan for women aged 15–49 years who had given at least one live birth in three years preceding the survey. We decomposed inequalities in the utilization of quality ANC among urban and rural women in Bangladesh and Pakistan using the Oaxaca, the Blinder, and related decompositions for nonlinear models. To quantify covariate contributions to the urban-rural inequality in the utilization of quality ANC, we employed the Blinder-Oaxaca multivariate decomposition analysis for nonlinear response models.

Results:

Our findings show that the utilization rate of quality ANC was 38.50% in Bangladesh and 46.97% in Pakistan. In Bangladesh, the average total difference in predicted quality ANC rates between the urban and rural areas was 0.2012 ($p\text{-value} \leq 0.01$), while in Pakistan, the average total difference was 0.2524 ($p\text{-value} \leq 0.01$), regardless of the type of decomposition used. For detailed decomposition, the leading and significant covariate categories ($p\text{-value} \leq 0.01$) consistently contributing to the urban-rural inequality were the richest wealth quintile (Bangladesh: 38.05%, Pakistan: 18.23%), women's secondary and higher education (Bangladesh: 3.74%, Pakistan: 14.67%), husband's secondary and higher education (Bangladesh: 7.55%, Pakistan: 6.69%), media exposure (Bangladesh: 8.92%, Pakistan: 9.16%), and women's autonomy (Bangladesh: 2.34%, Pakistan: 2.16%).

Conclusion:

There is significant urban-rural inequality in Bangladesh and Pakistan, which is more pronounced in Pakistan. Wealth difference has the largest contribution percentage among the common significant predictors for both countries. In Pakistan, women's education is the second largest contributor to inequality, while in Bangladesh, it is media exposure. To effectively address the inequality in quality ANC between urban and rural areas, strategies must be tailored to these specific differences in the identified characteristics.

The Queensland Ambulance Service Falls Co-Response Program

Miss Kym Murphy[1], Mr Scott Nash[2]
[1]Queensland Health, Brisbane, Australia, [2]Queensland Ambulance Service, Brisbane, Australia

5D - Prioritising public health strategies in Australia, Hamersley, September 19, 2024, 1:15 PM - 2:45 PM

Underpinned by a rapidly ageing demographic, falls are a growing population health issue in Queensland. In 2020/2021, fall related incidents were the most common call for service by the Queensland Ambulance Service (QAS), representing 8.7% of all incidents. The large majority (81%) were transported to a hospital Emergency Department (ED). 68% of these patients required hospital admission suggesting some patients could be managed in the community. In response the Falls Co-Response Program was implemented as a partnership between the QAS and Queensland Health (QH). A paramedic and allied health practitioner (AHP) (physiotherapist or occupational therapist) respond to a Triple Zero (000) call for a person who has fallen providing multidisciplinary assessment and intervention.

Evidence recommends use of a falls risk screening tool to identify future falls risks and inform the intervention approach. Education is recommended for all patients who have fallen or identified at risk of falling. Interventions to optimise the environment, exercise programs improving balance and mobility and targeted intervention for individually identified risk factors has also shown to reduce future risk of falling.

48% of patients seen by the program have remained at home after a fall reducing the burden on ED’s with an estimated saving of 2000 patient hours in the first six months. This has been possible through comprehensive multidisciplinary assessment and intervention. The Falls Risk Assessment Tool is used to inform falls risk. Education and immediate interventions are provided to address falls risks for the individual, in their home environment. QH provided Follow-Up Pathways are available for continuation of care.

The partnership between QAS and QH has achieved reach across the Brisbane region providing timely access to individualised, holistic assessment, early intervention and connected care pathways in or close to home. Consumers reported their wishes were respected and valued interventions to reduce future falls risk.

Untangling Connections: Health Literacy and Medication Adherence in Ethnic Minority Diabetes Patients

Mrs Jinal Parmar[1], Dr Aymen El Masri[1], Assoc/Prof Freya MacMillan[1], Prof Kirsten McCaffery[2], Assoc/Prof Amit Arora[1]
[1]Western Sydney University, Campbellwtown, Australia, [2]The University of Sydney, Camperdown, Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Background: Type 2 Diabetes Mellitus (T2DM) requires optimal self-management and adherence to medical treatment to achieve desired health outcomes for patients. Lower levels of health literacy are linked with poor medication adherence, but evidence on this association in ethnic minority groups with Type 2 Diabetes Mellitus is sparse. Aim: The aim of this systematic review was to synthesise the evidence on the relation between health literacy and medication adherence among adults from ethnic minority backgrounds living with T2DM. Method: Medline (Ovid), The Cochrane Library, Embase (Ovid), PsycInfo (EBSCO), and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) (EBSCO) were searched systematically for eligible studies. Studies published in the English language with no restriction on the date of publication and design were included. Screening and selection of studies, assessment of methodological quality, and data extraction were conducted by two reviewers independently. Results: From systematic search and related reference search yielded 6,318 records, which was reduced to 4,573 after removing duplicates. After screening the studies based on title and abstract, 51 studies were selected for full-text review out of the 4,267. The evaluation of 51 studies led to the inclusion of 13 articles representing 11 unique studies in the final review. Final assessment of the data from 11 studies showed only two studies support significant association between health literacy and medication adherence among people from an ethnic minority background. Conclusion: The current evidence regarding the link between health literacy and medication adherence among ethnic minority adults with Type 2 Diabetes Mellitus (T2DM) is limited and inconclusive. There is variability in the findings, highlighting the need for further investigation into this relationship within ethnic minority populations. To mitigate the disparities arising from cultural and linguistic differences, it is imperative to conduct well designed studies that specifically target this demographic.

77

Psychological distress and depression among Bangladeshi migrants in Australia: prevalence and predictors

Dr Pritimoy Das[1,2], Professor Muhammad Aziz Rahman[1,2,5], Professor Colette Browning[1,3,4]
[1]Federation University, Australia, Ballarat, Australia, [2]Collaborative Evaluation and Research Centre (CERC), Federation University, , Australia, [3]Health Innovation and Transformation Centre, Federation University, , Australia, [4]Research School of Population Health, Australian National University, , Australia, [5]Faculty of Public Health, Universitas Airlangga, Surabaya, Indonesia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim: An estimated 1 in 5 Australians adults (4.3 million) experienced a mental illness in the past twelve months. This study examines the prevalence, levels, and predictors of psychological distress and depression among Bangladeshi migrants in Australia.

Methods: Quantitative survey data were collected in 2023 from Bangladeshi-born adult migrants living in Australia for ≥1 year. Psychological distress and depression were assessed using the Kessler 10 Psychological Distress Scale (K10) and the Center for Epidemiologic Studies Depression Scale Revised scale (CESDR-10) respectively. Predictors were identified using logistic regression.

Results: Of the 196 participants, mean age was 39 years (±8.3). Most were male (57%, n=112) with bachelor's/master's degrees (75%, n=147). Nearly half resided in Australia for over a decade (48%, n=92), mainly from Victoria (68%, n=133). The prevalence of 'high to very high levels' of psychological distress among Bangladeshi migrants was 43% and that of depression was 35%, more than double the Australian average. Novel risk factors identified include non-engaging in activities with family/friends (AOR 5.34, 95% Cis 1.35-26.77) and community (2.65,1.16-6.09), and absence of prior income in Bangladesh (3.37,1.09–13.13). Migrants from rural Bangladesh (0.42,0.17-0.97), aged ≥30 years (0.17,0.04-0.63), and active on social media (0.26,0.08-0.78) were less likely to be depressed. Other predictors identified are loneliness (6.24, 2.64-16.69), poor friendship (4.51,2.01-11.12), discrimination (2.72,1.32-5.79) and racism (2.71,1.27-5.91), multiple comorbidities (3.37,1.34-9.07), and low English proficiency (2.52,0.96-6.71).

Conclusions: This study highlights the very high prevalence of psychological distress and depression among Bangladeshi migrants. The findings suggest that a range of social, economic, and cultural factors contribute to the mental health issues experienced by them. We recommend advocacy for policy changes to develop targeted mental health interventions and support services for migrants, focusing on enhancing social connectedness, building language skills, addressing discrimination, encouraging community-based initiatives that foster social connections and a sense of belonging.

Mental health service access of Bangladeshi migrants in Australia: Insights and Implications

Dr Pritimoy Das[1,2], Professor Muhammad Aziz Rahman[1,2,5], Professor Colette Browning[1,3,4]
[1]Institute of Health and Wellbeing, Federation University, Australia, Ballarat, Australia, [2]Collaborative Evaluation and Research Centre (CERC), Federation University, , Australia, [3]Health Innovation and Transformation Centre, Federation University, , Australia, [4]Research School of Population Health, Australian National University, , Australia, [5]Faculty of Public Health, Universitas Airlangga, Surabaya, Indonesia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Objective: The aim of the present qualitative study was to add to our understanding of the perceptions of mental health and service access among Bangladeshi migrants living in Australia to develop effective and culturally acceptable services that will enhance equity in healthcare.
Design, setting and Participants: In 2024, qualitative In-depth interviews were conducted with Bangladeshi migrants living in Australia. A subset of Bangladeshi migrants who participated in a quantitative survey and consented to qualitative interviews was used to recruit participants. A stratified purposeful sampling technique was used to identify ten respondents (5 men and 5 women; aged 27-44 years), balancing gender, visa, location and levels of psychological distress. A thematic analysis was performed.
Results: The challenges faced by Bangladeshi migrants in accessing and utilizing mental health services in Australia were organized into seven overarching categories: Firstly, participants lacked knowledge of mental health services and were unsure of where to seek support. Secondly, stigma surrounding mental health issues was a significant barrier, with participants fearing negative treatment from their community. Financial constraints, including out-of-pocket costs, were also a concern. Additionally, some participants believed that their religious faith restricted them from disclosing personal issues to outsider counsellors, while others thought that religious practices were sufficient for maintaining wellbeing. Further barriers included a lack of awareness about existing mental health services due to insufficient publicity through appropriate media channels. Communication difficulties with non-Bangladeshi service providers also prevented participants from seeking help. Finally, cultural issues and fears of breaking confidentiality were significant concerns.
Conclusion: The study's findings have important implications for future research and policy development: Culturally sensitive interventions, targeted public health campaigns about services, mental health literacy, strategies to reduce out-of-pocket costs and increase affordability of mental health services are needed to improve access to mental health care for Bangladeshi migrants in Australia.

South Australia’s Public Sector Anti-Racism Strategy | The Journey so far

Mrs Telisha Bayly[1], Ms Brenda Muturi[2]
[1]Preventive Health SA, Adelaide, Australia, [2]Preventive Health SA, Adelaide, Australia

3A - Racism in Health and Decolonisation of the System, Golden Ballroom North, September 18, 2024, 11:00 AM - 12:30 PM

The lived experience of many South Australians reveals racism continues to harm individuals and affect the life opportunities of our next generations. There are numerous instruments at national and state level aimed at addressing discrimination. However, whilst effective laws are critical foundational tools to address inequality, we know that laws alone are not enough.

South Australia (SA) is the first Australian state to develop and launch a public sector Anti-Racism Strategy. It is informed by research and extensive consultation with Aboriginal and Culturally and Linguistically Diverse people with lived experience of racism. The strategy centres racism as a determinant of health and wellbeing, recognising the significant negative physical and mental health impacts and intergenerational trauma it can cause.

The strategy demonstrates our commitment to listening and learning from one of the oldest civilisations on Earth, as we develop a workforce that is culturally capable and accountable. It complements the State Government and SA public sector’s ongoing work to remove racial inequality and promote inclusion within the public sector workforce, including the establishment of the First Nations Voice to Parliament, Closing the Gap, the South Australian Multicultural Charter, and agency-level plans and actions on reconciliation and inclusion.

From conception of the Strategy to Cabinet Approval and launch, the anti-racism journey in South Australia has been an exercise in building evidence, advocacy, and partnership from which many lessons can be learnt.

Applying a public health lens to the issue of racism has allowed the public discourse and policy creation on the issue to take on new depth and breadth. The result of which is a unique partnership between two State government agencies with distinct mandates, Preventive Health SA, and the Office of the Commissioner for Public Sector Employment (OCPSE). This partnership has seen the leveraging of respective strengths, with OCPSE acting as lead agency responsible for implementation, supported by Preventive Health SA’s specialist capability in population level data and analysis.

As the largest employer in South Australia, the public sector is uniquely placed to set the standard for tackling racism in all its forms government, and in the community at large.

Pathways to impact? Informing food relief policy and practice through partnership research

Dr Tahna Pettman[1], Professor Ian Goodwin-Smith[1], Professor Jon Buckley[2], Professor John Coveney[3], Ms Sue Christophers[4], Mr Greg Pattinson[5], Mr James Chapman[6], Dr Natasha Schranz[7], Mr Jim Gillespie[7], Associate Professor Carmel Williams[8], Professor Svetlana Bogomolova[1]
[1]Centre For Social Impact Flinders, College of Business, Government and Law, Flinders University, Bedford Park, Australia, [2]UniSA Allied Health & Human Performance, University of South Australia, Adelaide, Australia, [3]College of Nursing and Health Sciences, Flinders University, Bedford Park, Australia, [4]Anglicare SA, Christies Beach, Australia, [5]Foodbank SA & NT, Edwardstown, Australia, [6]The Food Centre Inc., Gepps Cross, Australia, [7]Government of South Australia, Adelaide, Australia, [8]Centre for Health in All Policies Research Translation, Health Translation SA and School of Public Health, The University of Adelaide, Adelaide, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

What is the issue that requires public health action?
Efforts to address chronic food insecurity in Australia are dominated by food relief, and while a valuable service, it has yet to reduce chronic food insecurity. New knowledge can help to evolve service models and inform government investment, however, research must be co-produced and translated to ensure that it informs policy and practice. Building on previous collaborations, researchers initiated a partnership research project in South Australia, through Australian Research Council Linkage funding (2021-24). Policy and practice partners included two state government agencies (health-wellbeing, and human services) and three community sector food relief organisations. The project aimed to work in partnership to translate existing guiding principles into practice, and inform service and system improvements.

What have we learned to address this problem/issue, and how has this finding been derived?
Participatory methods and integrated knowledge translation guided research activities, which included co-design, knowledge brokering and commissioned research. Methods to evaluate outputs and impacts included a stakeholder database, partner discussions, and tracing of policy and practice influence.

How has this been used in practice?
While a research protocol was initially developed, this evolved into a commitment to working together with partners to ‘meet them where they were at’, responding to emergent need while pursing research objectives. Research activities and methods remained flexible, to fit within partners’ contexts and constraints. Support requests (40%), information-seeking (20%) and relationship-building (20%) were the most common types of contact over time. Nine reports (commissioned work and co-authored peer-reviewed articles) and co-design outputs were produced, informing practice and service funding redesign. Researchers brokered knowledge for the sector during times of staff turnover in government.

What actions should we take in the future to address the issue?
New knowledge and tools co-produced through the Linkage are immediately relevant and can be translated to service delivery, and can be used to inform government investment in food and social systems. National research funding can enable additional state-based action alongside knowledge co-production. Future projects and grants are being progressed with existing and new partners, to address new topics of practice and policy importance.

Shifting food relief towards prevention: a cross-sector collaborative research project

Dr Tahna Pettman[1], Professor Ian Goodwin-Smith[1], Professor Jon Buckley[2], Professor John Coveney[3], Ms Sue Christophers[4], Mr Greg Pattinson[5], Mr James Chapman[6], Dr Natasha Schranz[7], Mr Jim Gillespie[7], Associate Professor Carmel Williams[8], Professor Svetlana Bogomolova[1]
[1]Centre For Social Impact Flinders, College of Business, Government and Law, Flinders University, Bedford Park, Australia, [2]UniSA Allied Health & Human Performance, University of South Australia, Adelaide, Australia, [3]College of Nursing and Health Sciences, Flinders University, Bedford Park, Australia, [4]Anglicare SA, Christies Beach, Australia, [5]Foodbank SA & NT, Edwardstown, Australia, [6]The Food Centre Inc., Gepps Cross, Australia, [7]Government of South Australia, Adelaide, Australia, [8]Centre for Health in All Policies Research Translation, Health Translation SA and School of Public Health, The University of Adelaide, Adelaide, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem/issue that requires public health action?
Systemic change is needed to overcome chronic food insecurity. A shift towards prevention in the food relief sector could improve health and social impacts, but limited guidance is available to achieve this. In South Australia (SA), a food security partnership was established between government health and human service sectors in 2016, which engaged the community food relief sector in producing a Charter of principles for reorienting practice towards outcomes. In 2021, a research partnership project was initiated with government and food relief organisations, to explore use of the Charter principles and to co-produce resources for service and system improvement.

What have we learned to address this problem/issue, and how has this finding been derived?
Interviews, evidence review, and co-design of resources and tools were used. Findings revealed a lack of visibility of the Charter's vision, and varied enactment of the principles. Ongoing needs included: (1) Collaboration across the community sector and government for coordinated systems; (2) Implementation of nutrition guidelines and healthy food procurement; (3) More dignified, values-based services driven by community preferences; (4) Evolved service models offering social support and connection; (5) Relationship-building and tools for data collection and impact evaluation.

How has this been used in practice?
Nine practical service elements were co-created with all partners, tested during co-design with food relief staff and volunteers, then were transformed into a self-assessment tool, to guide quality improvement and orient towards outcomes. The tool is currently being piloted and validated with the community food relief sector.

What actions should we take in the future to address the problem/issue?
Actively pursuing implementation of the new service elements could guide food relief service and system improvement. Knowledge and tools co-produced in this partnership can be used to evolve food relief funding and service provision, so that it becomes more coordinated and integrated, accessible, delivered in a dignified and non-stigmatising way, and is oriented towards prevention of food insecurity.

Food Price Elasticities in Australia: How Food Pricing Policies Can Shape Diets

Mr Tazman Davies[1], Dr Akshar Saxena[2], Professor Jason Wu[1], Dr Matti Marklund[1]
[1]The George Institute For Global Health, Faculty of Medicine, University of New South Wales, , Australia, [2]Division of Economics, Nanyang Technological University, , Singapore

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

There is growing recognition of the need for food pricing policies, including taxes on unhealthy foods and subsidies for healthy foods, to shift consumer demand and combat the global epidemic of chronic diseases. Understanding the relationship between changes in food price and changes in food demand—specifically, the price elasticities of demand—is crucial for developing effective strategies in Australia.

We analysed how changes in food price affected food demand using a large grocery purchasing dataset (NielsenIQ Homescan, 2015 – 2019) and the Almost Ideal Demand System model. Preliminary results indicate that ‘non-alcoholic beverages’, ‘confectionery and snacks’, and ‘biscuits, cakes, and desserts’ were moderately responsive to changes in price, as a 10% increase in price was associated with a reduction in demand of 11.6%, 9.2%, and 8.4%, respectively. Similarly, ‘fruits’ and ‘vegetables’ were moderately responsive to changes in price, as a price reduction of 10% was associated with an increase in demand of 11.5% and 7.8%, respectively. Additionally, changes in the price of one category tended to have a minimal influence on the demand for other categories, and there was little variation in price responsiveness across different socio-economic levels.

These elasticity estimates can guide policymakers considering food pricing policies to promote healthier diets in Australia. It is likely that pricing policies targeting unhealthy food categories, fruits, and vegetables could substantially shift food purchasing patterns in Australia, all without causing meaningful shifts in demand for non-targeted categories.

Future work may use these price elasticity estimates to model the health impacts, equity implications, and cost-effectiveness of specific food pricing policies in Australia, such as a junk food tax and subsidies for fruits and vegetables.

Drought and sexual violence against adolescent girls: evidence from a multi-country study

Dr Lucas Hertzog[1,2,3], Dr Ivan Hanigan[1,2,3]
[1]Curtin School Of Population Health, Bentley, Australia, [2]WHO Collaborating Centre for Climate Change and Health Impact Assessment , Perth, Australia, [3]Healthy Environments and Lives (HEAL) National Research Network, , Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim: Droughts have worldwide public health impacts, and evidence suggests that more populations have been impacted in recent years due to climate change.The intensity, duration, and frequency of these events are likely to increase, raising interest in understanding environmental determinants' role in public and individual health.While evidence indicates that environmental factors contribute significantly to violence, the specific influence of drought on sexual violence remains underexamined.This study aims to address this gap by examining the association between drought and sexual violence against adolescent girls and young women.

Methods and findings: The study uses cross-sectional, international data from the Violence Against Children and Youth Surveys. From February 2013 to July 2019, 34,349 females (13-24 years) were interviewed in 14 countries.We employed a random effects Bayesian Generalised Linear Model with varying intercepts to account for unobserved heterogeneity across countries, controlling for age, relationship status, school enrolment and wealth.Sexual violence was defined as a combination of variables that measured unwanted sexual contact, completed or attempted forced penetration, and pressured into sexual activity.The exposure variable, drought, was quantified in terms of duration and intensity using the Standardised Precipitation-Evapotranspiration Index (SPEI) with a 6-month timescale and ~50 square km spatial resolution.Exposure to prolonged drought periods was associated with higher odds of sexual violence, with an adjusted odds ratio of 1.22 (95% credible interval 1.22 – 1.22) and a posterior probability of 1.00, indicating a strong evidence with high degree of certainty.

Translational outcomes:This study provides novel evidence of the link between drought and sexual violence,highlighting a critical area for public health intervention.By delineating this association, the research paves the way for future policy development that can integrate violence prevention into broader climate resilience strategies.The findings offer a foundation for developing targeted interventions and cross-sectoral collaborations to reduce vulnerabilities in drought-prone areas.

Future actions:Future efforts should incorporate these insights into proactive policy-making that addresses climate change adaptation and violence prevention.Implementing community-based interventions to strengthen local responses to environmental changes and support violence prevention is also essential.By adopting a comprehensive approach, we can better protect vulnerable populations from the intertwined impacts of environmental and social challenges.

Uptake of Australia’s mandatory pregnancy warning labels for alcoholic beverages in 2023

Mr Tazman Davies[1], Ms Bella Straeuli[1], Professor Paula O'Brien[2], Professor Jacqueline Bowden[3], Mr Asad Yusoff[1], A/Prof Michelle Jongenelis[4], Dr Alexandra Jones[1], Dr Aimee Brownbill[5], Prof Tanya Chikritzhs[6], Mr Fraser Taylor[1], Dr Julia Stafford, Professor Simone Pettigrew[1]
[1]The George Institute for Global Health, Faculty of Medicine, University of New South Wales, , Australia, [2]Melbourne Law School, University of Melbourne, , Australia, [3]National Centre for Education and Training on Addiction (NCETA), Flinders University, , Australia, [4]Melbourne School of Psychological Sciences, University of Melbourne, , Australia, [5]Foundation for Alcohol Research and Education, , Australia, [6]Faculty of Health Sciences, Curtin University, , Australia, [7]Cancer Council Western Australia, , Australia

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

Alcohol use during pregnancy causes harm to the fetus and the mother. On July 31, 2020, Australia and New Zealand mandated that alcoholic beverages packaged and labelled from 1 August 2023 display a government-prescribed pregnancy warning label. This study aimed to assess the uptake of this label and its placement on products after the policy implementation date.

Between August and November 2023, data collectors visited three liquor stores in Sydney representing three major alcohol retailers in Australia (Dan Murphy’s, Liquorland, and BWS) and photographed 3,488 unique products. The results showed that two-thirds (65%) of products displayed the mandatory pregnancy warning label. Across alcohol categories, beer (94%), premix drinks (93%), and cider (92%) generally displayed the mandatory pregnancy warning label, while half (50%) of spirits and two-thirds (68%) of wines showed the label. Across all products, the mandatory pregnancy warning label was largely contained to the back (87% of labels) or side (8% of labels) of the product.

Many products do not display a mandatory pregnancy warning label, which may be because they were packaged prior to the policy implementation date. Additionally, the lack of specific requirements for label placement has resulted in virtually none of the mandatory pregnancy labels being applied to the front of pack, which is where evidence suggests the label would be the most noticeable and have the largest impact in reducing alcohol purchasing.

As the mandatory pregnancy warning label is an important public health measure to signal the harms of drinking alcohol during pregnancy, alcohol retailers and policymakers should intensify their efforts to ensure more products display the mandatory pregnancy warning label, which may involve applying pregnancy warning stickers to products that do not currently display the label. Existing requirements should also be revised to ensure that the mandatory pregnancy warning label is more prominently displayed.

Reducing Alcohol-Related Violence: A Literature Review of Intervention Effectiveness

Dr Sanchita Gera[1], Dr Janelle Slattery[1]
[1]Department of Health, Perth, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Alcohol-related violence (ARV) is an important public health issue that causes harm throughout Australia. The impact of ARV extends further than those immediately affected, influencing emergency department clinical staff workplace safety and satisfaction, hospital inpatient bed capacity and consuming extensive healthcare funding and resources. Family and domestic violence (FDV) is another public health issue with far-reaching health, social and economic impacts. The relationship between alcohol and FDV has been reported in studies from multiple countries, where a major modifiable risk factor of FDV incidence and severity is alcohol use. Recognising that excessive alcohol consumption (EAC) and FDV commonly co-exist and cluster, there is a need to consider interventions targeting these issues when investigating methods for reducing ARV in WA.

A literature review was performed, with the aim of assessing outcomes of interventions targeting ARV, including FDV and EAC. Databases including Medline, Cochrane and PubMed were searched for English-language studies and grey literature published between 2010 and 2023 investigating interventions and strategies used to address ARV, FDV and EAC. Thirty-six studies meeting design criteria were selected for inclusion in the review. A critical narrative approach was used due to variability in study designs preventing quantitative analysis. Population-based interventions including alcohol taxation and minimum unit price for alcohol are effective measures in reducing ARV. Community-based interventions that restrict alcohol trading hours, reduce alcohol outlet density, impose alcohol restrictions, and change the drinking environment were protective against ARV. However, success of these interventions on FDV is heterogenous. Clinical-based interventions targeting FDV, and alcohol simultaneously found mixed results. Evidence for individual-based alcohol interventions addressing FDV and alcohol concurrently yields positive results.

The overall evidence base for interventions reducing alcohol-related violence is limited. Existing studies lack strong validity, necessitating a more rigorous evaluation into the effectiveness of interventions. Future interventions should focus on vulnerable groups at-risk of alcohol violence, address sociocultural determinants of intervention success and explore use of internet-based interventions.

These findings will inform the WA Health System Action Pan for Reducing Alcohol-Related Violence in response to recommendation 2b of the Sustainable Health Review.

The use of non-regulated claims on packaged food products in Australian supermarkets

Ms Bella Straeuli[1], Simone Pettigrew[1], Daisy Coyle[1], Gary Sacks[2], Bridget Kelly Gillott[3]
[1]The George Institute, Waterloo, Australia, [2]Deakin, , , [3]University of Wollongong, ,

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim
The Australian Food Standards Code regulates the use of nutrition- and health-related claims (hereafter 'claims') on food products in Australia. However, various claims are not covered by the Code, including general terms such as 'natural' or 'healthy' that, when displayed on food products, can mislead consumers about the nutritional quality of products. This study aimed to explore the prevalence of such non-regulated claims on packaged food products in Australia and to assess the healthiness of products displaying these claims.

Methods and analysis
This study used data from the 2023 Australian FoodSwitch database, a large nutrition composition database that contains nutrition information for ~28,000 packaged foods sold in five major supermarkets in Australia. We examined the use of claims that are not covered under the Food Standards Code. We excluded claims related to verified organisations (e.g., Vegan Certified). For all products, we estimated the Health Star Rating (HSR) and applied the NOVA food processing classification system.

Translational outcomes
Approximately 5,000 products (15% of all products) displayed non-regulated claims. Some products displayed multiple claims (range 0-4). The most prevalent non-regulated claims were 'Natural' claims, accounting for almost two-thirds of all assessed claims, followed by 'diet-related' claims (around one in five claims) and 'healthy' claims (around one in six claims). Approximately one-quarter of products that displayed claims received a HSR of <3.5 and around two-thirds were classified as ultra-processed by the NOVA classification system. The use of claims was most common in the 'sugars, honey, and related products', 'beverage' and 'food for specific dietary use' food categories.

Future actions
These findings demonstrate that non-regulated health- and nutrition-related claims are present on many packaged food products in Australia. Vague, unsubstantiated claims can be misleading, and therefore there is a need to develop policies to control the use of these marketing claims.

Addressing Barriers to COVID-19 Vaccination in People with Psychosis

Ms Tammy Hall[1], Dr Katie Atwell[1], Dr Vera Morgan[1], Ms Susie Hincks[2], Dr Anna Waterreus[1]
[1]The University Of Western Australia, Perth, Australia, [2]Meeting for Minds, Perth, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Compared with the general population, people with psychosis faced increased risks of COVID-19 infection and worse related outcomes, including hospitalisation and death. Despite calls to prioritise this population for vaccination during the height of the pandemic, vaccination rates remained low. Individuals' uptake (or not) of available vaccinations is driven by both access to vaccines and their willingness to accept them. We aimed to explore these barriers for people with psychosis and offer recommendations for improving health-related outcomes for this group. This mixed-methods cross-sectional study was conducted with 233 participants who had taken part in the Perth (WA) metropolitan catchments of the Survey of High Impact Psychosis. Recruitment was conducted by telephone between September 2022 and September 2023. Participants were asked questions regarding vaccination status, sources of health and COVID-19-related information, perceived vaccination importance, and other factors influencing vaccination decisions. Reflecting WA's high vaccination coverage generally, over 90% of respondents reported being fully vaccinated, while 6% had refused vaccination. However, many participants described barriers to accessing the vaccines that reflected their experiences as people living with mental illness. Over half said they were not contacted or approached by anyone about getting vaccinated for COVID-19. All under- and non-vaccinated participants denied receiving information on vaccine timing and safety, while almost half of those fully vaccinated had received such information. Under- and non-vaccinated participants reported lower levels of trust in their General Practitioner or psychiatrist regarding their health compared to those who were vaccinated, yet simultaneously reported higher levels of trust in other types of healthcare professionals. Participants who did not believe vaccination was important cited concerns related to vaccine side-effects and efficacy as deterring their uptake, while those placing high importance on vaccination sought to prevent illness in themselves or others, to provide peace of mind, and were motivated by mandate policies. Our study underscores the importance of tailored vaccination programs and enhanced communication strategies to improve vaccination rates among people with psychosis. We recommend upskilling nurses and case managers to provide information and encourage vaccination in this population, and offering vaccines to inpatients or at mental health facilities during routine appointments.

Guided tours to better understand rural community environments for health promotion

Ms Michele Conlin[1], Dr Sean MacDermott[1], Dr Evelien Spelten[1], Ms Dorothy McLaren[2]
[1]La Trobe University, Mildura , Australia, [2]West Wimmera Health Service , Nhill, Australia

5A - Cultural Competence in Healthcare and Public Health, Golden Ballroom North, September 19, 2024, 1:15 PM - 2:45 PM

What is the problem/issue that requires public health action? [Context and aim]

To implement effective rural health promotion strategies, it's critical to understand local contexts and drivers of health. Furthermore, an assessment of context should be integral to any formal program evaluation to allow for better interpretation of findings. Guided tours represent an innovative data collection method, as well as a tool for local stakeholder engagement. This study aims to explore the use of mobile interviewing techniques to assess rural community environments in the context of a health promotion program evaluation.

What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]

Mobile interviewing methods were adapted from previously published studies for use in a rural Victorian health service catchment. Progress association members, town advisory committee members, and service club members were invited to hold "guided tours" of their towns with the theme being "what in your town helps or hinders community health". Audio recordings were made of the tours with consent of participants and field notes taken. Recordings were transcribed verbatim and coded using inductive thematic analysis.

Six guided tours were completed with a total of eight participants. Identified themes varied widely between towns, however common themes included the value of face-to-face social interactions, the importance of access to nature, the influence of community pride and connection to place, as well as concerns around mental health, the impact of ageing communities, and the lack of quality housing.

How has this been used in practice? [Translational outcomes]

Results of the analysis were presented to the health service's health promotion team for feedback. The team relayed that it provided a comprehensive snapshot of different contextual factors influencing their work and had explanatory power when reviewing program evaluation results.

What actions should we take in the future to address the problem/issue? [Future actions]

The study contributes to a better understanding of rural contexts for health promotion work and provides a worked example of how mobile interviewing methods can help practitioners and researchers engage in creative ways with community stakeholders.

WA Health's provision of free online STI testing, and condom dispensers

Ms Kelsey Atkinson[1], Mr Matthew Bacon[1], Ms Sharelle Tulloh[1]
[1]WA Health, East Perth, Australia

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

- What is the problem/issue that requires public health action? [Context and aim]

The Sexual Health and Blood-borne Virus Program (SHBBVP) at WA DoH are responsible for the state-wide prevention and control of sexually transmissible infections (STIs) and blood-borne viruses (BBVs). Young people a priority population in the WA Sexually Transmissible Infections (STIs) Strategy 2024-2030 with the majority of chlamydia and gonorrhoea notifications being in people aged 15-29 years.

- What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]

WA DoH’s comprehensive response to reducing STIs and BBVs involves an intersectional, person-centred approach, with a focus on multisectoral partnerships and digital and data innovations. To ensure accessible prevention and testing services in WA use of online and site-based initiatives are required. Free online testing improves accessibility by decreasing financial, geographical and personal barriers to access, while site-based condom dispensers provide convenient and discreet access to safer sex hardware.

- How has this been used in practice? [Translational outcomes]

Effective sexual health programs aim to increase condom use as well as promote regular testing. To ensure that both messages are addressed condom dispensers provided to health and community organisations across WA have QR codes linking to the free online chlamydia and gonorrhoea testing service. Over the last 12 months, demand for online testing and condom dispensers through SHBBVP has increased with 726 tests being completed in 2023 (126% increase from 2022 [320] and an increase of 144% from 5-year average [297 tests]. These increases correlating with the introduction of QR codes on the 126 condom dispensers throughout the state, and the decrease in availability of bulk billing GPs and health clinics. Notable, number of Aboriginal people utilising the online test increased from 5 in 2022 (1.5% of tests completed) to 119 in 2023 (16.4% of tests completed). The test positivity rate has remained similar (10.5% in 2023 compared to 6.8% in 2022) demonstrating reach within communities at risk of STIs. Positivity rate: 76 positive notifications in 2023 an increase from 22. Positivity rate was highest in people under 25 (15.7%).

- What actions should we take in the future to address the problem/issue? [Future actions]

Next steps involve exploring options to make this service more accessible, such as removing the need to print the PathWest form. We are also working with services to support their service users in accessing the service, as well as more promotional materials. We also aim to continue providing condom dispensers and condoms to services around WA, with a focus on regional and remote locations.

Chlamydia testing and case ascertainment by age and sex, Western Melbourne, 2023

Courtney Gee[1], Dr Brendan Quinn[2], Francesca Froldi[2], Dr Charles Alpren[1], Dr Frances Ampt[1]
[1]Western Public Health Unit, Western Health, St Albans, Australia, [2]Department of Health, Melbourne, Australia

3D - Research insights: Indicating policy change, Hamersley, September 18, 2024, 11:00 AM - 12:30 PM

Chlamydia trachomatis cases notified to public health authorities in Victoria have increased in the last decade, particularly in western Melbourne. However, the extent of testing and case ascertainment remains unknown.

A recent update to the Public Health and Wellbeing Regulations (2019) required laboratories to report all positive and negative chlamydia tests from January 2023. Using this newly available data, we calculated testing rates and percent positivity by postcode, age and sex in the Western Public Health Unit (WPHU) catchment compared to the rest of Victoria, to identify opportunities for sexually transmitted infection (STI) prevention and control.

We included tests conducted by 11 laboratories over 6 months in 2023 and population estimates from the 2021 Census. We excluded laboratories based interstate (n=18) or missing test data (n=7), and tests from postcodes outside Victoria or with missing age, sex, or postcode. Postcodes aligning with WPHU's 8 local government areas (LGAs) were defined as being in our catchment.

A total of 199,435 tests were included. The testing rate was 45.1/1,000 people and percent positivity 5.7% in WPHU, versus 30.7/1,000 and 5.6% across Victoria. Lower testing (29.8/1,000) and higher percent positivity (12.2%) was observed in 15-19-year-olds in WPHU. Young adults had high testing rates (20-24 years: 97.3/1,000; 25-29 years: 109.6/1,000) and a relatively high proportion of those tested were positive (20-24 years: 9.3%; 25-29 years: 6.2%). Testing was lower among males than females aged 15-24 (57.1/1,000 versus 83.6/1,000), and percent positivity was higher in men of all ages (6.5% versus 4.7%). We found pockets of low testing and high percent positivity among young people in parts of Melton, Wyndham and Brimbank LGAs, with different geographic distribution between sexes.

This first analysis of chlamydia testing using newly notifiable data has found evidence of a high level of undiagnosed chlamydia in teenagers aged 15-19, and of diagnosed and undiagnosed chlamydia in adults aged 20-24, particularly men, with unequal geographic distribution. WPHU and partner organisations will use findings to direct local interventions to: increase testing among key populations; advocate for greater access to sexual health services; and engage teenagers and young people, particularly men, in STI prevention.

Exploring diet-related health inequities and strategies to support people experiencing socioeconomic disadvantage

Dr Verena Vaiciurgis[1], Professor Eleanor Beck[2], Professor Karen Charlton[1], Dr Anita Stefoska-Needham[1], Dr Annabel Clancy[1]
[1]University of Wollongong, GLENWOOD, Australia, [2]University of New South Wales, Kensington, Australia

1C - Social Determinants of Health: the challenge, Golden Ballroom South, September 17, 2024, 1:30 PM - 3:00 PM

[People living with socioeconomic disadvantage experience significantly higher rates of chronic disease, disability, and early mortality. Poor diet quality is a key modifiable risk factor for non-communicable diseases. Diet quality is significantly impacted by social and environmental factors such as inequitable barriers to accessing nutritious foods and health services, resulting in significant health disparities. We aimed to explore barriers, opportunities and potential strategies within organisations providing food nutrition-related health services to people experiencing disadvantage. This study is part of a larger research initiative, underpinned by participatory action research methodology, aiming to co-design targeted solutions to reduce health inequities related to diet].

[We conducted a mixed methods study (survey and interviews) with Australian organisations assisting in food and nutrition-related support for people experiencing disadvantage aged 16 years and over. Sixty-eight surveys and 13 interviews were completed. ‘Dignity and respect’ for clients guided all nutrition-related services, and ‘food’ was identified as a fundamental right and gateway for other opportunities to support clients. Further themes included food as an opportunity for ‘social connection and participation’; clients with diverse experiences and needs; varied services, resources, and facilities; the importance of ‘community collaboration’ for holistic support; and the reliance on ‘staff and volunteers’ existing knowledge and skillsets. Barriers to supporting clients' nutritional needs include financial constraints, limited community engagement, understaffing, scarce resources, and knowledge gaps. Opportunities and solutions for enhancing support encompass increased government funding, advocacy initiatives, stronger community collaboration, and more holistic, customized services. Recommendations include establishing purpose-built facilities or wrap-around services to broaden access to health services, life skills training, and educational programs.]

[Organisations involved in provision of food and nutrition-related services are in a unique position to provide assistance beyond just ‘food’ as it is often a point of connection and a potential gateway to additional support pathways. However, government funding is required to invest in and facilitate such pathways.]

[To better support client needs, future research should consider models to promote capacity building for staff and volunteers, shared services, resources and facilities, community collaboration within local organisations, and the utilisation of a holistic approach (e.g., including housing, medical and mental health, and addiction services].

Parents' experiences of perinatal child protection processes: What do we know?

Ms Sam Burrow[1], Professor Melissa O'Donnell[1,2], Professor Lisa Wood[1,3], Professor Colleen Fisher[1], Ms Renée Usher[2], Ms Renna Gayde[4]
[1]The University of Western Australia, Perth, Australia, [2]University of South Australia, Adelaide , Australia, [3]The University of Notre Dame, Perth, Australia, [4]Curtin University, Perth, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

What requires public health action?

Current Australian polices regarding preventive health, Aboriginal and Torres Strait Islander health, and child protection all emphasise the importance of preventive action to address the social determinants of health. This is critically important for families experiencing complex biopsychosocial and economic disadvantages and involved in child protection systems. However, concerns persist regarding inadequate family support, the number of infant and child removals, and the enduring impact on families. An enhanced understanding of families' experiences of child protection involvement is needed to inform the delivery of early and appropriate support to meet their needs, promote health and wellbeing, and help keep families together.

What have we learned and how?

Our systematic review has synthesised qualitative evidence to gain an understanding of the experiences of pregnant women and parents involved in child protection processes in the perinatal period (conception to one year following birth). Multi-disciplinary electronic databases (13) were searched for relevant peer-reviewed journal articles written in English. Twenty-four articles published between 2005 and 2023 met the inclusion criteria. Analysis involved a socio-ecological approach and thematic synthesis. Selected studies included diverse participants from six countries, but parents' experiences were strikingly similar. While they frequently displayed strength and personal agency as they endeavoured to keep or be reunified with their babies, they also described: limited personal and professional support; inadequate communication; power imbalances; cultural bias; increased poverty and homelessness; enduring fear and pain; and chronic poor health.

How will this be used in practice?

Our findings have contributed to a broader program of research that is co-creating recommendations to support families and improve child protection processes in the perinatal period. They will be piloted in service settings in Western Australia.

What future actions are needed?

A public health approach to child protection has been endorsed within national policy but the public health community can do more to explicitly recognise and respond to the needs of families involved in child protection systems. Future action will require enhanced cross-sector collaboration and coordinated care to address the social determinants of health, prioritise prevention and early intervention; and promote healthy and safe families.

Providing perinatal support for families experiencing disadvantage: Professionals’ perspectives regarding cross-sector collaboration

Ms Sam Burrow[1], Professor Melissa O'Donnell[1,2], Professor Colleen Fisher[1], Professor Lisa Wood[3], Ms Renée Usher[2], Ms Renna Gayde[4]
[1]The University of Western Australia, Perth, Australia, [2]University of South Australia, Adelaide, Australia, [3]The University of Notre Dame, Perth, Australia, [4]Curtin University, Perth, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

What requires public health action?

The National Framework for Protecting Australia’s Children 2021-2031 has endorsed a public health model that includes early intervention and support for families experiencing complex biopsychosocial and economic disadvantages and involved in child protection systems. In Australia, infants are more likely to receive child protection services and be admitted to out-of-home care than any other age group, and a growing chorus of parents, advocates, service providers, and researchers are expressing concerns regarding the number of infant removals and how child protection processes in the perinatal period (conception to one year following birth) impact the health and wellbeing of families. Enhanced understanding of available support and child protection processes in the perinatal period is needed to inform policy and practice that supports family health and wellbeing.

What have we learned and how?

Our qualitative research study explores professionals’ perspectives on perinatal support and child protection processes. Staff from fifteen government and non-government organisations—based in Perth, Western Australia, and providing services within health, welfare, legal, and Aboriginal Community Controlled sectors—participated in the research. Focus groups and interviews were conducted using a semi-structured interview schedule that included questions about processes, services, supports, gaps, and challenges. Framework analysis identified cross-sector collaboration as a recurring theme, with professionals identifying the need for: more collaborative partnerships with parents and between government and non-government services; clearly articulated care coordination and support pathways, and wrap-around family support provided by specialists from multiple disciplines and services.

How will this be used in practice?

Findings from the focus groups and interviews have informed subsequent co-creation sessions conducted with professionals and parents, and a draft model outlining care coordination and support pathways for families involved in perinatal child protection processes has been developed.

What future actions are needed?

Future action is needed to: pilot and evaluate the model within organisations; ensure that lived experience advisors and the Department of Communities are involved in the ongoing development of coordinated care; and enhance cross-sector collaboration to provide holistic support that helps families with newborn babies avoid entering or returning to the child protection system.

Utilization of health care for NCDs in South Asia: A systematic review

Mr Md Tauhidul Islam[1], Dr Adelakun Odunyemi[1], Dr Mieghan Bruce[2], Dr Khurshid Alam[1]
[1]Murdoch Business School, Murdoch University, Murdoch, Australia, [2]School of Veterinary Medicine and Centre for Biosecurity and One Health, Harry Butler Institute, Murdoch University, Murdoch, Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim

Despite strengthening health systems for non-communicable diseases (NCDs) in South Asia (SA), low healthcare utilization (HCU) and unequal access remain challenges. A systematic review was conducted to explore factors affecting HCU for major NCDs (Cardiovascular disease, Diabetes, Chronic Obstructive Pulmonary Disease) in SA. This study examined both service availability (supply-side) and patients' willingness and ability to use them (demand-side). Additionally, this systematic review investigated the overall prevalence of HCU and the distribution between public and private healthcare systems.

Methods and analysis/research findings

This review included English language studies published between 2016 and August 31st, 2023, identified through a systematic search of Pubmed, CINAHL Ultimate, Scopus, and Web of Science databases. This study employed a combination of Joanna Briggs Institute's convergent integrated approach, framework synthesis, and 'synthesis without meta-analysis' (SWiM) to synthesize the evidence.

A total of 8,297 articles were identified, of which 81 met the inclusion criteria. Findings showed that the top three frequently reported supply-side determinants of HCU were wait times, quality of patient engagement with healthcare providers, and direct costs related to healthcare visits. Financial limitations, healthcare center proximity, and educational qualification emerged as the top three frequently reported demand-side determinants of HCU among patients with NCDs. Across SA countries, public health facilities showed HCU prevalence between 6.9% and 69.0%, while private facilities ranged from 21.6% to 87.5%.

Translational outcomes

By examining patients' experiences, views, and beliefs, we gained valuable insights into healthcare utilization for NCDs and strategies to promote it in the future.

Future actions

This review highlights the need for further research on HCU for NCDs in SA. This systematic review provides a foundation for researchers and policymakers to develop intervention strategies that strengthen healthcare systems for NCDs in SA.

The ORIGINS Project: Strengthening partnerships through nested research projects

Dr Poonam Pannu[1], Dr Sarah Whalan, Professor Desiree Silva[2,3], Professor Susan Prescott[1,2,5], Dr Jackie Davis[1,4]
[1]Telethon Kids Institute, Perth , Australia, [2]The University of Western Australia, Perth, Australia, [3]Edith Cowan University, Perth, Australia, [4]Curtin University, Perth, Australia, [5]Nova Institute for Health, Baltimore, USA

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

The ORIGINS Project (ORIGINS)1 is the largest longitudinal cohort study in Australia, recruiting 10,000 pregnant women and their partners in the northern suburbs of Western Australia, and following up their children to primary school age. ORIGINS aims to understand the origins of health and disease and to promote a 'healthy start to life'. Data and biological samples are collected from families at multiple time-points from pregnancy until early childhood. Collaboration and engagement are fundamental elements of ORIGINS. This is reflected in the unique aspect of 'nesting' observational and interventional research projects within ORIGINS, which promotes collaboration between researchers and stakeholders.

- There are over 50 nested projects within ORIGINS, with an additional 7 projects under review. The research projects cover an array of domains across child and family health and development.
- Investigators are from a range of institutions, participating in domain specific Research Interest Groups, which fosters creativity and networking.
- All projects return analysed data back to the ORIGINS platform increasing the richness of the data.

ORIGINS has been able to work collaboratively with many researchers resulting in:
- 4014 participants recruited in multiple projects.
- Connections with > 60 local, national, and international collaborators.
- 14 PhD students, and 29 Masters, Honours, Doctor of Medicine, and Undergraduate students.
- >250 presentations at conferences, seminars and symposiums.
- >60 publications.

ORIGINS has contributed to research translation through:
- Identification of biomarkers to prevent respiratory disease development.
- Enabling AI systems for improving cognition and reducing the impact of neurodevelopmental disorders.
- Identification of autism markers for early intervention.

ORIGINS provides a platform for researchers to collaborate, and leverage on existing and new data to improve research output and guide policy planning. Data is currently being used to contribute to the development of guidelines around: screen usage, food allergens, outdoor play, dietary intake and weight trajectory.

Play Active Program for Early Childhood Education and Care

Prof Hayley Christian[1,2], Dr Andrea Nathan[1,2], Ms Emma Adams[1,2], Ms Phoebe George[1,2], Prof Stewart Trost[3], Prof Jasper Schipperijn[4], Adjunct Prof Trevor Shilton[2], Dr Clover Maitland[5], Ms Robyn Landais[6], A/Prof Kevin Murray[2]
[1]Telethon Kids Institute, University of Western Australia, 15 Hospital Avenue, Australia, [2]School of Population and Global Health, The University of Western Australia, Perth, Australia, [3]School of Human Movement and Nutrition Sciences, University of Queensland, Brisbane, Australia, [4]Department of Sports Science Clinical Biomechanics, University of Southern Denmark , Odense, Denmark, [5]Centre for Behavioural Research in Cancer Behavioural Science Division, Cancer Council Victoria, Melbourne, Australia, [6]Independent Consultant (previously WA Department of Health), ,

3D - Research insights: Indicating policy change, Hamersley, September 18, 2024, 11:00 AM - 12:30 PM

Context and aim:

Energetic play is essential for children’s development and to set lifelong positive health behaviours. Yet only one in ten children aged 3-5 years get the recommended 60 minutes of daily energetic play. Early Childhood Education and Care (ECEC) is an important setting for supporting children’s physical activity. Play Active is an evidence-informed physical activity policy intervention with implementation strategies to enable ECEC services to successfully implement their policy. Play Active is backed by 10 years of research with leading (inter)national research institutions, ECEC providers and peak bodies and organisations working in child physical activity and health.

Methods and analysis/research findings:

In 2021-22 a pragmatic trial to test the effectiveness and implementation of Play Active was conducted with 81 ECEC services (646 educators) in Perth, WA. There was a significant increase in the uptake of policy physical activity practices during the 3-month implementation period. There was high awareness of the policy recommendations (90%). Acceptability was high for both educators (83%) and directors (78%) and, fidelity and reach were high for most implementation support strategies (75%-100%).

Translational outcomes:

Play Active supports services to meet the Australian ECEC national standard: “Each child’s health and physical activity is supported and promoted”. Play Active received a further $2million to be scaled up nationally. Play Active was launched by the Federal Minister for Early Childhood Education and Youth, the Hon. Dr Anne Aly MP in April 2024. More than 80,000 Australian children from 700 ECEC services across nationally are expected to benefit through improved physical activity and health. A key focus is equitable implementation of Play Active for ECEC services who work with priority population groups.

Future actions:

Nutrition, sleep and sun protection policies are required by national ECEC regulations yet there is no guidance around how much physical activity children should have while in ECEC. Play Active addresses this policy intervention gap. A key goal is to amend national ECEC regulations to require services to have a physical activity policy and for Play Active to be a sustained national ECEC program.

Using go-along interviews to understand how urban environments influence early child development

Dr Andrea Nathan[1,2], Dr Melanie Lowe[3], Dr Karen Villanueava[4], Prof Sally Brinkman[5], Prof Hayley Christian[1,2]

[1]Telethon Kids Institute, University of Western Australia, 15 Hospital Avenue, Australia, [2]School of Population and Global Health, The University of Western Australia, Perth, Australia, [3]Centre for Urban Research, RMIT University, Melbourne, Australia, [4]Social Equity Research Centre, RMIT University, Melbourne, Australia, [5]UniSA Education Futures, University of South Australia, Adelaide, Australia

3B - Public health systems and transitioning environments, Golden Ballroom Centre, September 18, 2024, 11:00 AM - 12:30 PM

Context/Aim:

One quarter of young Australian children are vulnerable to developmental delay with significant geographical variance. Research highlights the importance of built environment features for determining developmental outcomes, however this differs by area-level disadvantage. The aim was to explore the lived experience of parents experiencing hardship using go-along interviews to understand how urban environments influence young children’s development.

Methods/Research findings:

19 parents of children under 6 years experiencing hardship were recruited via our partner service provider in Perth, WA. Service managers and support workers shared the recruitment information with clients of parenting workshops, young parents support services, parent and child centres, and a supported accommodation service.

Go-along interviews involve the researcher conducting a semi-structured interview whilst accompanying a participant on a day-to-day activity, allowing the researcher to use the surrounding environment as discussion points or question prompts. Interviews were conducted in November-December 2023, in a pre-determined location identified by the participant as a place where they and the child enjoy spending time together. Participants were asked about their reasons for visiting their chosen location, who they usually visit with, what they do on a typical visit and about how their chosen place may help their child ‘learn and grow’. Participants provided demographic information immediately after the interview. Field notes were taken by the interviewer and captured descriptions of the physical features of interview location, the types of people present in the location and their use of the space, and participants’ interactions with their children in the location. Field notes and interview transcripts are currently being analysed and key themes will be presented.

Translational outcomes:

Go-along interviews and working alongside service provider partners was a feasible and effective approach for ensuring the voice of parents experiencing hardship could be heard and included in research. This is vitally important to limit unintended consequences that may arise through implementation and research translation when equity considerations are not accounted for.

Future actions:

Lived experiences are needed to inform and develop place-based intervention strategies to create supportive environments that reduce children’s health and developmental vulnerability, and break cycles of deep and persistent disadvantage.

Healthy Childrens' Menus: Feasibility and Acceptance in Western Australian Food Outlets

Dr Clare Whitton[1,2], Samantha Veurink[1], Matthew Cooper[3], Zac Dempsey[3], Claire Pulker[1,2], Joelie Mandzufas[1,3,4], Anna Gannett[1], Alexia Bivoltsis[1], Gina Trapp[1,3,5]
[1]Nutrition and Health Innovation Research Institute, School of Medical and Health Sciences, Edith Cowan University, Joondalup, Australia, [2]School of Population Health, Curtin University, Perth, Australia, [3]Telethon Kids Institute, The University of Western Australia, Crawley, Australia, [4]School of Population and Global Health, The University of Western Australia, Crawley, Australia, [5]School of Medicine, The University of Western Australia, Crawley, Australia

3D - Research insights: Indicating policy change, Hamersley, September 18, 2024, 11:00 AM - 12:30 PM

Context and aim:
Food environments significantly influence dietary-related health, but currently encourage intake of energy-dense, nutrient-poor foods and beverages. With dining out becoming more common, ensuring food service environments support good nutrition is a public health priority. In Australia, almost all children's menu items at cafes/restaurants are of poor nutritional quality. This study aimed to investigate perceptions and attitudes of parents/carers and food business owners towards children's menus to identify acceptable interventions.

Methods and research findings:
Parent/carers (n=514; mean age: 34y+/-10; 70% female) of children (2-12y) were surveyed online, and food business owners (n=15) were interviewed in Perth, Western Australia (WA). Descriptive statistics of survey items were generated, and interviews were thematically analysed. Three quarters (n=389, 76%) of participants wanted healthy items on children's menus at cafes and restaurants. Three quarters (n=380, 74%) were supportive of a Healthy Kids' Menu Venue Accreditation Program, an intervention adopted in other Australian states. Almost half (n=231, 45%) indicated that accreditation would increase their likelihood of dining at a food outlet. Business owners generally indicated support for an accreditation program, noting its likely appeal to diners, but some raised concerns regarding feasibility and consumer demand for healthy items.

Translational outcomes:
This study provided valuable insights into consumer and stakeholder perceptions of children's meals in food service outlets. The clear demand for an improvement in the nutritional quality of children's meals offered in cafes and restaurants provides justification for intervention. Food business owners' perceptions of the barriers and enablers to providing healthy children's meals will inform intervention strategies.

Future actions:
In WA, developing a Healthy Kids' Menu Venue Accreditation Program is recommended. Although similar programs in other states have seen low sales of healthy items, this study suggests the need for a comprehensive feasibility assessment and implementation support. Strategies to boost the sale of healthy items should also be developed and evaluated.

Detecting drug-drug interactions with AI: Towards an equitable healthcare future

Ms Ramya Padmavathy Radha Krishnan[1]
[1]University Of Sydney, Sydney, Australia

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

Modern healthcare is characterized by rapid technological advancements that necessitate innovative approaches to address emerging challenges. Drug-drug interactions (DDIs) are one such important health challenge that pose a significant public health concern, resulting in increased risk of adverse drug events and heightened healthcare costs. This is further exacerbated by the huge demand on clinicians' time and the varying levels of health literacy among patients. This study explores the potential of ChatGPT, a large language model driven by artificial intelligence (AI), to supplement the health literacy of patients with understanding possible DDIs in their medications.

We chose a patient-centric approach, crafting three standardized prompts that reflected patients' perspective in a real-world healthcare setting. The relevant demographic details, diagnoses and prescribed medications from anonymized hospital records of 120 patients were input through these prompts into ChatGPT version 3.5, and the results compared against pharmacists' responses to estimate the diagnostic efficiency of ChatGPT. Cohen's kappa coefficient, Fleiss' kappa coefficient and area under the receiver operating characteristic (ROC) were calculated.

Patients included in the study were treated with a median of 11 medicines. Prompt variations influenced ChatGPT's responses, with a slightly higher sensitivity observed for prompts containing the term "drug interaction". Low true positive and high true negative rates were demonstrated through confusion matrices. Cohen's kappa coefficient values ranged from 0.077 to 0.143, indicating minimal agreement between ChatGPT and pharmacists.

Thus, ChatGPT had limited success in DDI identification compared to human experts, and further refinement is essential before its deployment as a reliable DDI assessment tool. This study highlights the need for interdisciplinary collaboration between AI researchers, healthcare professionals and policymakers to develop AI solutions that prioritize health equity.

Cultural Safety in Sexual and Reproductive Health - Human Relations Program

Ms Eudia Kipsuto[1], Mr Babin Mahat[1]
[1]Centre for Culture, Ethnicity & Health (CEH), Richmond, Australia

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

Cultural Safety in Sexual and Reproductive Health - Human Relations Program.

Young people from culturally and linguistically diverse backgrounds experience barriers accessing sexual and Reproductive health (SRH) information. Their attitude and beliefs are influenced by family and culture, however “silence’’ or topic being ‘taboo” is the main barrier to sexual health literacy. Multicultural Health Support Service (MHSS), a program of CEH (Centre for Culture, Ethnicity & health), in collaboration with GenWEST, Cohealth, IPC Health, Maribyrnong City Council, and Western English Language School (WELS) have been participating in a program called Human Relations Programs for over 10 years. The partnership is a cornerstone of the program. The five-week program is delivered to newly arrived migrant and refugee students at the Western English language School (WELS) in Melbourne’s West. This program prepares students aged 14-18 for the transition to mainstream education and work. The program also creates a safe space to discuss various SRH topics with peers and in language using interpreters taking into consideration cultural and religious beliefs. Partner organizations collaborate twice a year to deliver weekly workshops to students, engaging them in discussion and activities about sexual and reproductive health. The program provides young people with skills, knowledge, and resources to make informed decisions. These topics can be challenging for newly arrived young people, who are already contending with significant changes in their lives, in addition to the risks associated with confidentiality, safety, trauma and disclosure that come along with sexual and reproductive health education. The workshops are multilingual, and are delivered separately for boys and girls, with resources and referral pathways that students can follow up with.

Evaluation of this program demonstrates that participants gained improved knowledge and understanding of sexual and reproductive health in addition to increased confidence accessing the Australian healthcare system. This program exposes the need for SRH education at an early age as an early intervention.

The role of cultural sensitivity and competence education amongst overseas-trained doctors

Dr Akshay Pabary[1], Dr Riordan Deehan Jackson[1], Dr Rachel Brimelow[1]
[1]Redland Hospital, Cleveland, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

What is the issue that requires public health action?
Investigation into the effectiveness of cultural sensitivity and competence education on the knowledge and delivery of culturally safe healthcare amongst overseas-trained doctors.
What do we know and how has this finding been derived?
Australia has relied, to varying extents, on overseas trained doctors (OTDs) for its medical workforce. Providing culturally safe healthcare for Aboriginal and Torres Strait Islander peoples is crucial, particularly in areas where accessing adequate healthcare services, is challenging. There is a vital need for effective learning and delivery of culturally safe healthcare education amongst incoming OTDs with limited experience of caring for indigenous populations.

Whilst studies have demonstrated the utility of cultural education amongst healthcare professionals such as nursing, midwifery, and medical students, there is relatively little known about the responses of OTDs in other health professional education programs.

This pilot study will be the first study conducted within Australia to explore overseas-trained doctors' delivery of cultural safe healthcare in response to current educational resources. The study will consist of a survey sent to OTDs practicing within Bayside Health Service following completion of the Aboriginal and Torres Strait Islander Capability Module. The survey will utilise a validated Cultural Capability Measurement Tool to measure cultural capabilities as described by The Aboriginal and Torres Strait Islander Health Curriculum Framework.

How has this been used in practice?
These findings will be used to help build the evidence to demonstrate the utility of cultural education amongst healthcare professionals, and further understand the impact of cultural education on the learner.

What actions should we take in the future to address the issue?
To date, there is no agreement within the literature as to what style of training is the most useful or effective. Further research is also needed to investigate the most effective format of cultural education, as well as their extended impact on patient health outcomes.

Effectiveness of Clinical Waste Management Policy in Hong Kong

Ms Pui Ying Choi[1]
[1]The Chinese University of Hong Kong, Hong Kong, China

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Healthcare waste encompasses hazardous waste and general waste generated from healthcare activities, including infectious, pathological, sharps, chemical, pharmaceutical, cytotoxic, and radioactive waste, as defined by the World Health Organization (WHO).

During COVID-19 pandemic, the generation of clinical waste had exceeded treatment capacity, while sources and categories of COVID-19 waste surpassed legal regulations in Hong Kong and other countries. Timeliness, comprehensiveness, resilience and effectiveness of clinical waste management policy (“CWMP”) in Hong Kong were never reviewed since its implementation in 2011 until now in this study.

A comparative case study was conducted to compare CWMP design across Hong Kong, Australia, Singapore and the United Kingdom, considering the similarities in their legal systems and Human Development Index. Academic and grey literature reviews were utilized to assess policy update and comprehensiveness. Hong Kong's CWMP aligns closely with Singapore, but it regulates fewer sources and types of clinical waste compared to Australia and the UK. Conversely, while the UK lacks regulations on offensive and poisonous waste like Australia, Australia does not regulate medicinally contaminated waste as comprehensively as the UK.

Furthermore, factors contributing to the effectiveness in the design, implementation and sustainability of CWMP were investigated in Hong Kong by government data analysis and semi-structured key stakeholder interviews. Policymakers, disposal facility staff, clinical waste collectors and all types of healthcare professions were interviewed individually. Consolidated Framework for Implementation Research (CFIR), Theoretical Domains Framework (TDF) mapped with Capability, Opportunity, Motivation and Behaviour (COM-B) guided the data collection and analysis.

Facilitators and barriers for policy implementation were identified within 9 TDF domains and 5 intervention functions—education, coercion, restriction, training, and communication.

Consequently, enhancing education, increasing surveillance, establishing additional reporting channels for irregularities, standardizing alternative treatment, limiting waste storage duration, and providing more official training and publicity were recommended for addressing future clinical waste management challenges.

Little Aussie Bugs: augmenting health literacy in the early years

Dr Ruth Wallace[1], Dr Amelia Ruscoe[2], Ms Theresa Rayfield[1], Dr Ros Sambell[1], A/Prof Leesa Costello[1], AProf Gill Kirk[2], A/Prof Amanda Devine[1]
[1]School of Medical & Health Science, Edith Cowan University, Joondalup, Australia, [2]School of Education, Edith Cowan University, Joondalup, Australia

3C - Evidence, strategy, and creativity to promote behaviors, policies, and practices, Golden Ballroom South, September 18, 2024, 11:00 AM - 12:30 PM

What is the problem/issue that requires public health action? [Context and aim]

Teaching health literacy across the lifespan can combat health inequities. Birth-five years is an optimal period for growth, development and learning; hence our focus on building health literacy in the early years. Early childhood settings are ideally placed to support this learning. The Little Aussie Bugs educational resources include dialogic storybooks focusing on personal hygiene, oral health and healthy eating; developed in Western Australia and launched in 2022 to support early-years educators build health literacy among young children. This evaluation considers the effectiveness and impact of these resources.

What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]

Two face-to-face workshops (n=28) coached educators to use the resources. Twelve hundred resource packs were distributed Australia-wide. An online survey (n=110) and qualitative interviews (n=8) captured useability/likeability data. Majority of survey participants (77%) reported increased confidence to deliver health literacy messages. Key qualitative findings revealed educators extended their use of the resources beyond ‘story time’, noting health literacy messages resonated with children, although less experienced educators reported some challenges with the books’ dialogic nature.

How has this been used in practice? [Translational outcomes]

Educators recalled numerous examples of using these resources to reinforce health literacy messages. For example, when transitioning from playtime to mealtime, children routinely wash their hands. The key messages from the ‘When we are sick’ book helped children visualise germs washing down the sink, building their understanding of abstract concepts related to personal hygiene. An online professional learning platform is currently being piloted (n=58) to further support educators’ use of the resources.

What actions should we take in the future to address the problem/issue? [Future actions]

While using resources like the Little Aussie Bugs helps build health literacy for children, they have been uniquely augmented by providing an online professional learning platform for educators. The Little Aussie Bugs resources are now being expanded to incorporate broader health topics (e.g., healthy bones and healthy ears), providing a library of resources that engage young children and build capacity for early years educators and services.

Respiratory inhaler dispensing and carbon emissions: a descriptive analysis of Australian data

Dr Luise Kazda[1,3,5], Prof Katy Bell[2,3,5], Dr Sean Docking[3,4,5], Dr Kristen Pickles[2,3,5], Prof Alexandra Barratt[2,3,5]

[1]HEAL Global Research Centre, HRI, University of Canberra, Canberra, Australia, [2]Sydney School of Public Health, University of Sydney, Sydney, Australia, [3]Wiser Healthcare Collaboration, Sydney, Australia, [4]Musculoskeletal Health and Wiser Health Care Units, Monash University, Melbourne, Australia, [5]HEAL National Research Network, Canberra, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

Context & aim

The healthcare sector is responsible for ~7% of Australia’s total carbon emissions. To reduce this, clinical practice must switch to low-carbon alternatives where clinically appropriate. A ‘carbon hotspot’ is respiratory inhalers. Traditionally, metered dose inhalers (MDIs) have been used, which contain potent greenhouse gases as propellants. Switching to newer more environmentally sustainable Dry Powder Inhalers (DPIs), which are clinically equivalent and appropriate for most individuals, has the potential to significantly reduce carbon emissions without compromising patient outcomes. We provide the first baseline measure for current utilisation of MDIs and DPIs in Australia, describing patterns and investigating variations in care.

Methods & findings

In this analysis of administrative health data, we use five years of Pharmaceutical Benefits Scheme (PBS) data to provide a descriptive overview of all respiratory inhalers dispensed in Australia and estimate the associated carbon footprint. Variation in inhaler dispensing is presented over time, by state, regionality, age and gender of consumer, enabling us to identify hotspots of MDI-dispensing. In 2023 over 17 million inhalers were dispensed in Australia (562 per 1,000 population), of which 63% were MDIs. Total CO2e emission from inhalers were estimated at 290,000 tonnes, with 98% of these from MDIs.

Translational outcomes

We estimate that replacing 40% of dispensed MDIs with DPIs can result in a reduction of 110,000 tonnes of CO2e emissions p.a. (~ driving 450 million km, equivalent to 3x the distance between sun and earth). Results will inform development of an update-able indicator to track inhaler carbon emissions over time. The indicator will be a publicly accessible measure to show progress over time towards health system decarbonisation. It will inform strategies to reduce MDI use by quantifying the extent of the issue for Australia and pinpointing hotspots for intervention.

Future actions

We are currently co-designing further qualitative and quantitative analyses to explore consumer awareness and knowledge regarding the environmental impact of respiratory inhalers and to assess how environmental impact influences their inhaler choices. Understanding consumer and clinician perspectives is critical to developing strategies that support shared decision-making as well as high-quality and environmentally sustainable asthma care.

The efficacy of diabetes self-management in low- and middle-income countries: A meta-analysis

Ms Hasina Akhter Chowdhury[1], Dr Cheryce L. Harrison[1], Dr Bodrun Naher Siddiquea[1], Ms Sanuki Tissera[1], Dr Anju E Joham[1], Dr Baki Billah[1]
[1]Monash University, Melbourne, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim: Diabetes mellitus (DM) poses a significant challenge to public health. Effective diabetes self-management education (DSME) interventions may play a pivotal role in the care of people with type 2 diabetes mellitus (T2DM) in low- and middle-income countries (LMICs). A specific up-to-date systematic review is needed to assess the effect of DSME interventions on glycaemic control, cardiometabolic risk, self-management behaviours, and psychosocial well-being among T2DM across LMICs.

Methods and analysis: The MEDLINE, Embase, CINAHL, Global Health, and Cochrane databases were searched on 02 August 2022 and then updated on 10 November 2023 for published randomised controlled trials (RCTs) and quasi-experimental studies. The quality of the studies was assessed, and a random-effect model was used to estimate the pooled effect of diabetes DSME intervention. Heterogeneity (I2) was tested, and subgroup analyses were performed. Egger's regression test and funnel plots were used to examine publication bias. The risk of bias of the included studies was assessed using the Cochrane risk-of-bias tool for randomized trial (RoB 2). The overall assessment of the evidence was evaluated using the Grading of Recommendations Assessment, Development,and Evaluation approach. PROSPERO (CRD42022364447).

Translational outcomes: A total of 5893 articles were retrieved, and 44 studies (n = 11838) from 21 LMICs met the inclusion criteria. Compared with standard care, pooled analysis showed that DSME effectively reduced the HbA1c level by 0.64% (95% CI: 0.45% to 0.83%) and 1.27% (95% CI: -0.63% to 3.17%) for RCTs and quasi-experimental design studies, respectively. Further, the findings showed an improvement in cardiometabolic risk reduction, diabetes self-management behaviours, and psychosocial well-being.

Future actions: This review suggests that ongoing support alongside individualised face-to-face intervention delivery is favourable for improving overall T2DM management in LMICs, with a special emphasis on countries in the lowest income group.

Differences and disparities for women who have a hysterectomy before 40.

Dr Karen Tuesley[1], Associate Professor Susan Jordan[1]
[1]University of Queensland, Herston, Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem/issue that requires public health action?

In Australia, 27,000+ women have a hysterectomy for benign conditions each year. While there are benefits, most studies indicate that women who have a hysterectomy before 40 years can suffer long-term detrimental health effects. Our recent study of over 660,000 women showed hysterectomy with ovarian conservation before 35 years was associated with 50% higher mortality rates from causes other than cancer or cardiovascular disease, increasing to 158% when the ovaries were also removed. The reasons for these increases are unclear but may relate to the socioeconomic/health characteristics of younger women who have hysterectomies.

Our study aims to characterise Australian women who have a hysterectomy <40, to assess how the pre-existing health and gynaecological conditions in this group differ from other women.

What do we know, and how has this finding been derived?

Our large study includes all women from New South Wales and Victoria who had a hysterectomy surgery <40 years from 2002-2022 (n≈10,000), and an age-matched comparison group. We used data-linkage to obtain procedures/diagnoses/treatments from state/national health records. Our study investigates associations with health/gynaecological conditions such as endometriosis, fibroids, alcohol dependency, anxiety, depression, severe mental illness, intellectual disability, diabetes, chronic pain, as well as indicators of socio-economic disadvantage.

While analyses are still in progress, we look forward to sharing our detailed findings at the Australian Public Health Conference.

How has this been used in practice?

Our study will identify vulnerable groups of women for whom there have been disparities of care related to gynaecological surgeries. This may have clinical relevance and provide areas for further investigation.

What actions should we take in the future to address the problem/issue?

Understanding disparities/differences for women who have a hysterectomy <40 years will help target interventions to improve health outcomes for these women.

Nutrition Interventions In Community-Based Dining Venues

Ms Buvini Hewamanne[1,2], Assoc Professor Tracy McCaffrey[1], Dr Alyce Wilson[1,2]
[1]Monash University, Clayton, Australia, [2]Gippsland Regional Public Health Unit, Traralgon, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Dietary risk factors have a significant impact on the incidence of chronic diseases. It is important to create supportive environments to promote healthy eating behaviours. Eating out of home has become increasingly common in recent decades, making community dining environments particularly relevant.

We undertook a scoping review to explore the types of nutrition interventions implemented in community dining settings to enhance healthy eating behaviours. A systematic search of databases (MEDLINE, Embase, CINAHL, Scopus, and Business Source Complete) and grey literature identified 2714 peer-reviewed and 14 grey literature studies, with 22 studies (21 peer-reviewed, 1 grey literature) ultimately included. The interventions were categorised into four types: point of purchase, recipe reformulation, menu reformulation, and community-wide health promotion. Analysis revealed that 86% of the studies reported significant improvements in primary outcomes such as nutrition environments, customer awareness, and healthy choices. Co-design by investigators and stakeholders was common. Most studies reported high acceptability of changes by vendors and positive receptivity by patrons, indicating the feasibility of introducing stepwise nutritional changes to a community-based dining environment.

The findings indicate that many community-based dining venues have successfully implemented nutrition interventions, resulting in improved dietary behaviours by patrons. By addressing individual, social and environmental factors, these initiatives effectively enhanced nutritional quality of food offerings and promoted healthier choices amongst patrons. These successes demonstrate the value of integrated, context-specific strategies in promoting healthier eating behaviours and improving population nutrition outcomes.

Future efforts should focus on developing tailored, community-focused nutrition interventions with robust evaluation frameworks. Engaging key stakeholders in the design and implementation process is crucial to ensure interventions are contextually relevant and sustainable. Additionally, including a rigorous evaluation framework and standardised evaluation tools in the design and implementation will enhance the effectiveness and scalability of nutrition interventions in promoting healthier eating behaviours.

115

Prioritising lived experience and community perspectives in cancer policy and practice development.

Ms Drew Meehan[1], Ms Amanda McAtamney[1], Ms Kate Whittaker[1], Ms Megan Varlow[1]
[1]Cancer Council Australia, Sydney, Australia

5A - Cultural Competence in Healthcare and Public Health, Golden Ballroom North, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim

Engaging with the community is more than a tick box on a funding application, it is a vital and valuable way to ensure that policy and research outputs lead to tangible changes and optimal outcomes. Lived experience and community member involvement is imperative to ensuring that we develop policies, programs and research that address the needs of people as they see and experience them.

Methods and analysis

Through our recent experiences in developing public health policies and guidelines that aim to address the needs of people affected by cancer, involving lived experience and community in our policy development process has resulted in several key learnings. This includes the need for collaboration to identify and involve interested people with lived experience and community members, tailored approaches and increased flexibility for engagement to match the topic being addressed, and providing multiple feedback avenues to ensure that people feel comfortable sharing their thoughts and experiences.

Translational outcomes

An example of community engagement that we have trialled is the use of a Community Reference Group for the development of a Navigation in Cancer Care Policy. We selected members to ensure a diversity within the group including people who had been diagnosed with cancer, carers and people who had experience of both, which was a strength of the group. Other strengths included appointing a Community Co-Chair, and having clear Terms of Reference before forming the group to ensure that all involved were appropriately informed of what to expect. This led to an engaged and enthusiastic group who played an important role in guiding the development of the policy, ensuring it is reflective of their needs and experiences.

Future actions

This presentation will share our successes and challenges to highlight how researchers, policymakers and program managers can involve community in the design and development of policy and programs, to ensure that engagement with community remains genuine, modern and agile, prioritising participation that adds value to the community and the work.

Development of a co-designed weekly meal box for the neurological community

Dr Joanna Rees[1], Dr Travis Cruickshank[1], Ms Kelly Moes[1], Prof Amanda Devine[1]
[1]Edith Cowan University, Joondalup, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

What is the problem/issue that requires public health action? [Context and aim]
For people living with neurological conditions maintaining good nutrition is a priority. However, cognitive issues and impaired motor skills are often experienced. These can compromise the ability to procure, prepare and cook healthy meals which can negatively impact their nutritional intake and quality of life. Strategies that support continued independence with activities of daily living are vital for self-efficacy and mental wellbeing. This project aimed to co-design a weekly meal box service tailored specifically for those with neurological conditions to reduce burdens around meal preparation, improve nutrition and provide a solution.
What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]
Two co-design workshops were held, one with consumers living with a neurological condition and one with neurological healthcare providers and industry stakeholders. Participants shared their perspectives on hopes, fears, ideal meal box contents, access methods, and other key features through discussions and group activities. Thematic analysis highlighted that both groups valued practical simplicity as the top priority. Important features included the need for easy ordering and delivery, visually guided recipes using pre-prepped ingredients, dietary accommodations, and the inclusion of nutritional information.
How has this been used in practice? [Translational outcomes]
The findings, plus on-going consumer conversations have informed the development of a prototype meal box in collaboration with an industry partner. The resulting prototype will be pilot tested for marketable feasibility and acceptability with a small number of volunteer neurological community families before further refinement.
What actions should we take in the future to address the problem/issue? [Future actions]
Once optimized through pilot testing, the meal box will progress to further evaluation in a randomized controlled feasibility study. Continued participatory research is needed to iteratively improve the meal box design based on feedback from the neurological community. Ultimately, a customizable meal box service addressing different neurological conditions should be established to enable broad access to this nutritional support intervention.

Provision of medical abortion services in Australian primary care: a systematic review

Ms Greta Skahill[1], Ms Mridula Shankar[1]
[1]The University of Melbourne, Melbourne, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Aim/context:

Subsidisation of mifepristone on the Pharmaceutical Benefits Scheme in 2013 was anticipated to expand medical abortion provision in primary care and enhance progress towards universal access. This systematic review aims to describe the individual, service and system-level factors still affecting medical abortion provision in Australian primary care with emphasis on rural contexts of provision.

Methods and analysis/research findings:

We searched four databases from 1st January 2013 to 25th February 2024 to identify primary studies describing factors affecting medical abortion provision in Australian primary care. Eighteen studies met our criteria. We undertook thematic synthesis of qualitative data to identify analytical themes and assessed confidence in review findings using GRADE CERQual. We mapped quantitative data onto qualitive review findings to identify areas of agreement and disagreement. We appraised included studies using the Mixed Methods Appraisal Tool.

We identified five barriers to abortion provision: (1) Medical abortion is a gendered service, (2) Primary healthcare systems are urban-centric, (3) Abortion delivery is presently financially unviable (4) A culture of secrecy surrounds abortion, and (5) Abortion lacks a health systems-based approach to service provision. We identified facilitators at individual, service and system levels, including (1) Personal commitment to enhance equity in access, (2) Peer networks and (3) Geographic decentralisation of abortion training.

Translational outcomes:

Several initiatives have been implemented to address barriers and leverage facilitators of medical abortion provision. The Clinical Champion Network aims to increase rural provider capabilities by decentralising training. The Australian Contraception and Abortion Primary Care Practitioners Support network facilitates resource-sharing and peer support among abortion providers.

Future actions:

Expanding abortion provision in Australian primary care requires system-level changes including creation of service delivery and funding models tailored to rural contexts, policy changes to allow autonomous nurse prescribing, and finally, increasing Medicare subsidies for reproductive services to better reflect resources required.

The crucial role of physical activity in cancer prevention

Ms Alicia Machalias[1]
[1]Cancer Council Australia, Sydney, Australia

1D - Communicate and Collaborate: Advancing health care outcomes, Hamersley, September 17, 2024, 1:30 PM - 3:00 PM

Context and aim

Emerging evidence shows that physical inactivity is associated with an elevated susceptibility to developing 13 different types of cancer, including colon, endometrial, head and neck, gastric and liver cancers.1 The National Preventive Health Strategy adopts a comprehensive approach to address physical inactivity across the entire population in alignment with the Australian evidence-based guidelines on physical activity and sedentary behaviour. 2 Prioritising investment in physical activity promotion may facilitate a reduction in the site-specific cancer burden associated with sedentary behaviour.1

Methods and analysis

Cancer Council Australia recently developed the Physical Inactivity and Cancer policy to present comprehensive, evidence-informed policy initiatives to create supportive environments for Australians to increase participation in physical activity with a focus on mitigating risk of associated cancers and other chronic diseases.

Cancer Council Australia conducted an evidence review and engaged key experts in physical activity and cancer prevention to assist with the development of evidence-informed recommendations to mobilise national action for the promotion of physical activity among Australians. This includes increasing awareness of the link between physical inactivity and increased cancer risk and prompting action to create supportive environments for Australians to participate in regular physical activity.

Translational outcomes

Successfully combatting physical inactivity requires coordinated action across various levels including within the individual, interpersonal, community and policy, and societal domains. Four overarching priority areas were identified: 1) Infrastructure and policy development which alter the physical environment and foster active transportation; 2) Promotion of Australia’s physical activity and sedentary behaviour guidelines for all ages; 3) Enhancing and updating national data collection on physical activity among children; 4) Promotion of intersectoral engagement and strategic partnerships for comprehensive physical activity promotion.

Future actions

The promotion of physical activity should intersect across multiple levels of influence to effectively support physical activity participation among Australians for the purpose of cancer and chronic disease prevention.

References

1Ellis, L., Milne, R. L., Moore, M. M., Bigby, K. J., Sinclair, C., Brenner, D. R., Moore, S. C., Matthews, C. E., Bassett, J. K., & Lynch, B. M. (2023). Estimating cancers attributable to physical inactivity in Australia. Journal of science and medicine in sport, S1440-2440(23)00514-5. Advance online publication.

2Department of Health. (2021). National preventive health research strategy. Obesity Research & Clinical Practice, 7, e115. https://doi.org/10.1016/j.orcp.2013.12.706

Boosting Healthy Eating Assessments in Early-Childhood Education and Care: Empowering Authorised Officers

Dr Ros Sambell[1,2,3], Dr Sandra Vale[4], Dr Ruth Wallace[1,3], Professor Amanda Devine[1,2,3]
[1]School of Medical and Health Science, Edith Cowan University, Joondalup, Australia, [2]National Nutrition Network - Early Childhood Education and Care, Joondalup, Australia, [3]Nutrition Health Innovation Research Institute, Joondalup, Australia, [4]National Allergy Council, Perth, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

Childhood obesity is a growing public health concern, and early childhood education and care (ECEC) services play a crucial role in promoting healthy eating habits. In Australia, the National Quality Standard (NQS) includes an element on healthy eating promotion. Services can be rated as 'meeting' or 'exceeding' the NQS, with exceeding indicating high quality practice. However, little is known about how authorised officers assess and rate ECEC services against this element, the challenges they face, and their professional development needs. This study aimed to explore these issues and examine the impact of a training intervention on officers' assessment practices and understandings.

A pre-post survey design was used to gather data from 44 authorised officers in Western Australia before and 9 officers after a one-day training session on assessing healthy eating environments. Key findings include: Variability in the time allocated to assessing Element 2.1.3 (range: <10 min to >1 hour). Focus on documentary evidence rather than educator practices and mealtime environments. Strong interest in further training and support (72% pre, 78% post), particularly around exceeding practice and efficient observation techniques. The post-survey showed that officers provided concrete examples of exceeding practice and found the training beneficial.

The findings suggest developing clear guidelines and examples of exceeding practice, providing regular nutrition/food-specific training for officers, and advocating for adequate resourcing and time allocation for quality assessment processes. Future actions include conducting further research, encouraging collaboration between stakeholders, and developing targeted resources and training. A collaborative and evidence-based approach is recommended to support the creation of healthy eating environments in ECEC settings.

Effect Hydroxyurea on Quality of Life Among Sickle Cells Anemia patients ,Yemen

Mr Abdullah Gafer[1]
[1]Ministry of Public Health, sanaa , Yemen

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

The Multicenter Study of Hydroxyurea (HU) in Sickle Cell Anemia has demonstrated that the daily oral administration of HU can decrease the frequency of painful sickle cell crises by 50% in patients suffering from moderate to severe forms of the disease. The morbidity linked to this condition is recognized for its significant detrimental effects on the overall quality of life (QOL) for those affected. The objective of this study was to evaluate the influence of hydroxyurea therapy on the quality of life of sickle cell anemia patients.

Methods:

A cross-sectional study was conducted among SCA children attending the Yemen Society for Thalassemia in Sana’a, Yemen, from June to September 2021. Data collection involved face-to-face interviews with children and their parents, utilizing the Pediatric Quality of Life Inventory (PedsQL) 4.0 Generic Core Scale. This scale encompassed four domains: physical functioning, emotional functioning, social functioning, and school functioning, along with other relevant demographic and clinical characteristics of the patients. Prior to data collection, the PedsQLTM 4.0 was piloted on 10% of the patients to ensure validity and reliability.

Data were coded, entered, and analyzed using SPSS version 25.0, employing descriptive and inferential statistics. A 5-point response scale was utilized for child self-reports and parent proxy-reports, with items reverse-scored and linearly transformed to a 0-100 scale for interpretability. Correlation analyses, including Point-biserial, Pearson’s, Spearman’s, and Eta correlations, were performed to assess the relationship between various factors and HRQL outcomes. A two-tailed p-value <0.05 was considered statistically significant.

Results:

The study included a total of 120 sickle cell anemia patients, with 56 patients (46.7%) aged between 1-10 years. The majority of patients (54.6%) were male. Most patients (87.5%) resided in urban areas, and around one-third (36.7%) had a basic education level.

Notably, 23.3% of patients experienced painful crises more than six times per year without receiving hydroxyurea, whereas only 10% of patients with similar crisis frequency were on Hydroxyurea therapy. The pre-transfusion Hb level was less than 7mg/dl for 54.2% of patients.

The mean total HRQL score was 80.92±10.50 for patients with SCA on Hydroxyurea, compared to 75.78±9.46 for those not on the treatment. A significant correlation was observed between total HRQL summary scores and factors such as the rate of painful crises and pre-transfusion Hb levels (P-value<0.05), with notably higher HRQL mean scores among children on hydroxyurea.

Conclusion and Recommendations:

In conclusion, children with SCA taking hydroxyurea exhibited better HRQL, particularly in physical health aspects, compared to those not on the treatment, despite being older and experiencing a higher rate of pain crises. Further research on HRQL as an outcome in future hydroxyurea studies and clinical practice is warranted to evaluate the treatment's effectiveness.

WA local government public health plans: An audit of food environment initiatives

Ms Sharonna Mossenson[1,2], Ms Frith Klug[1], Ms Claire Pulker[1,2], Ms Clare Whitton[1,2], Ms Gina Trapp[1,3,4]
[1]Edith Cowan University, Perth, Australia, [2]Curtin University , Perth, Australia, [3]Telethon Kids Institute, The University of Western Australia, Crawley, Australia, [4]School of Medicine, The University of Western Australia, Crawley, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem/issue that requires public health action? [Context and aim]

Local governments (LGs) are recognised as playing an important role in fostering healthier food environments for their communities through public health policies and actions. The mandate for Western Australian (WA) LGs to develop a public health plan (PHP) recognises the importance of LGs engagement with their community to improve public health outcomes. The aim of this study was to explore what LGs are proposing to do to improve the local food environment according to their PHP.

What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]

A desktop audit of all WA LG websites (n=139) was undertaken between July – October 2023 to identify publicly available PHPs. All commitments specified within these PHPs that related to food environments were identified and thematically analysed. Eleven food environment focus areas (FA) were established.
Of the 139 LGs, 48 had publicly available PHPs and all included at least one FA dedicated to improving food environments (average 5.5, range 2-9). The most prevalent FAs were alcohol reduction (n=44, 92%); food quality and safety (n=43, 90%); and healthy food policy and provision (n=37, 77%). FAs with the fewest commitments were food affordability (n=6, 13%) and food waste reduction initiatives (n=6, 13%). Overall, most of the commitments lacked clarity, a clear strategy for how they would be achieved and an evaluation plan.

How has this been used in practice? [Translational outcomes]

This study found that LG PHPs covered a broad range of focus areas to improve the local food environment. However, due to the lack of clarity and comprehensiveness of the commitments made, he complexity of achieving public health impact through food environment interventions may not be well understood, and a more comprehensive and strategic approach to public health planning is needed.

What actions should we take in the future to address the problem/issue? [Future actions]

Over a third of WA LGs have progressed the development of PHPs and include commitments related to improving the food environment. For effective change, LGs require evidence-based data, more resources and support to further their understanding of public health planning in relation to food environments, and additional capacity and strong partnerships to develop more considered and comprehensive PHPs. Additionally, evaluation of the implementation of the commitments and their impact is required.

Health meets Language: Empowering CALD Communities Through Collaborative Partnerships in English Classes

Mrs Bahar Nader[1], Ms Hyatt Narsh[1]
[1]Ethnic Communities Council Of Queensland, West End, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

Compared to the Australia-born population, migrants, and refugees, especially those who have settled in Australia for more than 10 years and have low English proficiency, have higher prevalence of several long-term chronic health conditions. The Ethnic Communities Council of Queensland (ECCQ) has been delivering a culturally tailored adaptation of My Health for Life, a lifestyle modification program, funded by the Queensland Government and delivered by the Healthier Queensland Alliance, aimed at targeting Queenslanders who are at high risk of cardiovascular disease, diabetes, and stroke. The cultural adaptation of the program aims to combat the gap in health outcomes through providing chronic disease prevention education in language to diverse communities and supports them through their behaviour change.

The Adult Migrant English Program (AMEP) is a free service provided by TAFE QLD to support migrants and humanitarian entrants in improving their English language skills and has also become a key partnership with the delivery of the program by ECCQ. This partnership leverages the strengths of both sectors to address the unique challenges faced by migrants, enhancing their health outcomes. Over the last 3 years, ECCQ has successfully delivered 31 programs to AMEP classes across Queensland to over 650 participants. The integration of these spaces ensures that communities receive information that is understandable and relevant to their needs. Language barriers are a significant impediment to accessing healthcare, understanding medical advice, and engaging in health-promoting behaviours. By embedding health education within English language classes, migrants can learn about health topics in a context that enhances comprehension and retention. This dual and collaborative approach empowers communities and equips them with critical health knowledge, leading to improved health literacy, enhancing individual outcomes, fosters a sense of community, and contributes to the broader goal of building healthier, more inclusive communities.

The use of 'better for you' claims on alcohol products in Australia

Mr Asad Yusoff[1], Dr Alexandra Jones[1], Professor Simone Pettigrew[1], Ms Bella Straeuli[1], Dr Julia Stafford[2], Professor Paula O'Brien[3], Professor Tanya Chikritzhs[4], Dr Aimee Brownbill[5], A/Professor Michelle Jongenelis[6]
[1]The George Institute, Sydney, Australia, [2]Cancer Council WA, Perth, Australia, [3]The University of Melbourne, Melbourne , Australia, [4]National Drug Research Institute, Perth, Australia, [5]Foundation for Alcohol Research and Education, Brisbane, Australia, [6]Melbourne Centre for Behaviour Change, Melbourne, Australia

3C - Evidence, strategy, and creativity to promote behaviors, policies, and practices, Golden Ballroom South, September 18, 2024, 11:00 AM - 12:30 PM

[Context and aim]
In the last decade, alcohol consumption in Australia has been in decline, with the main drivers appearing to be increased health consciousness and changing patterns of socialising. While this is a positive development from a public health perspective, one way that alcohol suppliers are responding to this shift is by attempting to market products as 'lighter' and 'healthier' using a range of on-pack 'better for you' claims. The aim of this research is to investigate the range of on pack 'better for you' claims used across the Australian alcohol market, and the prevalence by category.

[Methods and analysis/research findings]
We analysed the presence and type of 'better for you' claims on approximately 6,000 products collected from three major Sydney alcohol stores in March-April 2023. 'Better for you' claims were classified into six major categories: nutrient content claims (e.g. low sugar), energy claims (e.g. low calorie), absence claims (e.g. no additives), natural references (e.g. natural flavours), process claims (e.g. organic), and low alcohol claims (e.g. lighter in alcohol).

Approximately one-third of products displayed some type of 'better for you' claim overall. Product categories that most commonly displayed claims were cider and premix, with approximately 75% of these products displaying a claim. The most common 'better for you' claims related to references to being natural and specific nutrients.

[Translational outcomes and Future Actions]
These findings demonstrate that 'better for you' claims are used on many alcohol products. Stronger regulation of these claims is vital to ensure that consumers are not misled into thinking that alcohol products can be 'healthy' given the recognised health harms associated with alcohol use.

Comparing Mass Media Campaign Executions that Discourage Parental Provision of Alcohol

Dr Leon Booth[1], Ms Tahnee McCausland[2], Mr James Stevens-Cutler[2], Ms Keira Bury[2], Dr Julia Stafford[3], Professor Simone Pettigrew[1]
[1]The George Institute For Global Health, Sydney, Australia, [2]Western Australian Mental Health Commission, Perth , Australia, [3]Cancer Council Western Australia, Perth , Australia

3C - Evidence, strategy, and creativity to promote behaviors, policies, and practices, Golden Ballroom South, September 18, 2024, 11:00 AM - 12:30 PM

Context and aim: Parental provision of alcohol to children is associated with negative alcohol-related outcomes. Public health campaigns have shown promise for discouraging this practice, however limited research has examined the effectiveness of different messaging approaches. The aim of this study was to examine the performance two mass-media public health campaigns that were designed to motivate parents to abstain from providing alcohol to their underage children. The examined campaigns employed distinct strategies to achieve this – ‘I see’ utilised fear-based messaging and ‘I need you to say no’ employed a first-person narrative approach.

Methods and analysis: Parents were surveyed one year into the implementation of each campaign (‘I see’ n=308, ‘I need you to say no’ n=250), with separate survey samples for each campaign. The effects of the two campaigns on parents’ alcohol provision intentions were compared using an independent samples t-test. Two ordinal logistic generalised linear models were also used to assess whether intentions effects differed according to parents’ demographic, behavioural, and alcohol-related characteristics.

Translational outcomes: Both examined campaigns were effective, with most parents reporting that they made them less likely to provide alcohol to minors. Female parents and those who had never provided alcohol to their children were more likely to have been persuaded by the campaigns. The fear based ‘I see’ campaign was particularly effective for older parents and those who used less alcohol, whereas the ‘I need you to say no’ campaign that used a narrative approach was more effective with heavier drinkers.

Future actions: The strong performance of both campaigns highlights the crucial role of mass media campaigns for promoting stricter parenting practices around underage alcohol use. The effectiveness of mass media campaigns is likely to be maximised by implementing multiple campaigns with varying execution styles that differentially appeal to different parent subgroups.

Long-term Consequences of Caesarean Section for Women, Babies, and Society: Scoping Review

Ms Edwina Mead[1,2]
[1]University of Technology Sydney, Sydney, Australia, [2]University of New South Wales, Kensington, Australia

3B - Public health systems and transitioning environments, Golden Ballroom Centre, September 18, 2024, 11:00 AM - 12:30 PM

Context and Aim:
The caesarean section (CS) rate in Australia is high, exceeding 38%. While CS offers lifesaving benefits in some cases, overuse can negatively impact population health. The short-term risks are well characterised, however a gap exists in understanding the long-term effects. This research aims to bridge this gap by synthesising existing evidence on the long-term effects of CS, considering not only individual health but also societal implications.

Methods and Analysis/Research Findings: We conducted a systematic scoping review, searching major databases for studies published after 2004. Studies comparing long-term outcomes (>12 months) of CS and vaginal birth in term pregnancies were included.

The review identified potential associations with increased risks of various health conditions for the offspring, including some cancers, asthma, allergies, infections, autoimmune diseases. Additionally, altered stress response, behavioural problems, and lower academic performance were observed in some cases, although findings were mixed. No significant associations were identified between CS and semen quality, depressive disorders, or empathetic behaviour.

For women, CS was linked to increased chronic pain, abnormal bleeding, adhesive disorders, hospitalisations for cancer, reduced fertility, endometriosis, and bowel obstructions. CS can negatively impact birth experience, leading to higher rates of PTSD, postpartum depression, and lower quality of life. Conversely, CS was associated with better pelvic floor function.

Overuse of CS raises concerns beyond individual health outcomes. Prophylactic antibiotics used during the surgery may contribute to the growing problem of antibiotic resistance, and they generate more carbon emissions and disposable medical waste compared to vaginal birth.

Translational Outcomes:
These findings highlight a variety of long-term consequences associated with CS, extending beyond the immediate delivery period and impacting individuals and society. There is a need to incorporate the cost of long-term adverse health effects into maternity policy creation.

Future Actions:
A holistic approach to reducing the CS rate is recommended. This includes reviewing care guidelines, promoting vaginal birth after caesarean, and increasing availability of midwifery continuity of care. Clinicians should ensure that women are aware of potential long-term health outcomes when obtaining informed consent for CS. Further research is needed to confirm some associations and to reveal the underlying mechanisms.

Physical Activity in an Autonomous Future

Dr Leon Booth[1], Ms Victoria Farrar[1], Associate Professor Jason Thompson[2], Dr Rajith Vidanaarachchi[2], Ms Branislava Godic[2], Professor Julie Brown[2], Dr Charles Karl[3], Professor Simone Pettigrew[1]
[1]The George Institute For Global Health, Sydney, Australia, [2]The University of Melbourne, Melbourne, Australia, [3]Australian Road Research Board, Melbourne, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim: Physical activity is beneficial to health, yet a substantial proportion of Australians do not meet minimum physical activity recommendations. The advent of autonomous vehicles is expected to result in changes that both promote and discourage people from being physically active. However, attempts to predict the mechanisms via which autonomous vehicles will affect engagement in physical activity have yielded mixed results. This study employed a novel approach to examine potential lifestyle shifts and identify groups at risk of becoming more sedentary in an autonomous future.

Methods and analysis: An online survey was completed by 1078 adult Australians, which included a vignette describing a future scenario where autonomous vehicles and delivery systems are in common use and urban designs are better suited for walking and cycling to destinations. Respondents reported their anticipated changes in exercise levels in this future and provided reasons for their anticipated behaviours. Frequency analyses were used to identify predicted changes in physical activity and associated reasons. Two generalised linear models were run to identify factors associated with predicted decreases and increases in exercise.

Translational outcomes: While only minor decreases in physical activity were predicted overall, younger people, those who were less active, and those who spent more time using cars and public transport were more likely to anticipate being more inactive in an autonomous future. Reduced incidental exercise, convenient autonomous delivery services, and increased access to door-to-door transport were key factors contributing to anticipated declines in physical activity.

Future actions: The introduction of autonomous vehicles will need to be carefully managed to avoid reduced physical activity among certain groups. Developing better active transport infrastructure, improving safety for vulnerable road users, and restricting autonomous delivery services could help to create environments that are more conducive to active lifestyles when autonomous transport technologies are commonplace.

Nature Play & Grow: promoting engagement in nature in children

Dr Lisa Gibson[1,4], Dr Kelsie Prabawa-Sear[5], Ms Sarah McGowan[5], Professor Desiree Silva[1,2,3,4]
[1]Telethon Kids Institute, Perth, Australia, [2]The University of Western Australia, Perth, Australia, [3]Joondalup Health Campus, Perth, Australia, Perth, Australia , [4]Edith Cowan University, Perth, Australia, [5]Nature Play WA Inc, Perth, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

Context & Aim: There is good evidence that time in nature is associated with better child health, including physical activity, eating habits, sleep and emotional wellbeing. However, there has been a significant shift from active, outdoor nature-based activities to more passive sedentary indoor activities. The Nature Play & Grow program aims to assess the feasibility, acceptability and potential efficacy of an intervention to promote connectedness to nature in young children.

Methods & Research Findings: Families enrolled in a pregnancy cohort study (The ORIGINS Project) were invited to participate in the Nature Play & Grow program. The program consisted of eight weekly 60-minute outdoor group sessions held at local parks. Parents were also asked to complete eight weekly 15-minute online modules which focused on the core themes of outdoor play, healthy eating, physical activity and child development. Twenty-five families with children aged between 3 and 3.5 years were enrolled in the pilot program. Feedback from the parents indicated they valued the opportunity to connect with other children and families and to visit parks in their local area. The majority of families reported that they had planned to spend more time out in nature, and many had repeated the activities from the program.

Translational Outcomes: The Nature Play & Grow program shows promising results with regards to feasibility, acceptability, and the potential positive impact on health behaviours. This information is crucial to inform the development of evidence-based recommendations and practices regarding the promotion of healthy lifestyles in children through connectedness to nature.

Future Actions: A larger scale trial is currently underway to test the effectiveness of this program in the community in collaboration with Nature Play WA Inc and local council authorities in Western Australia.

Challenges to young children’s swimming lesson participation in New South Wales, Australia

Ms Edwina Mead[1,2], Dr Rona Macniven[1], Dr Amy Peden[1], Dr Blake Angell[1,3]
[1]University of New South Wales, Kensington, Australia, [2]University of Technology Sydney, Sydney, Australia, [3]George Institute for Global Health, Sydney, Australia

5B - Health promotion and sustainability, Golden Ballroom Centre, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim

Unintentional drowning is a leading cause of preventable death in young children in Australia, especially for under-5s. Swimming lessons are a key intervention for drowning prevention; however an estimated 10 million lessons were cancelled in Australia due to COVID-19 restrictions. Re-engagement has been impeded by cost pressures and instructor shortages, which may leave a cohort of children at higher risk of drowning across their lifetime.

Methods and analysis/research findings

To encourage re-engagement in swimming lessons, the NSW government provided parent/carers with $100 lesson vouchers through a program called First Lap. To understand pre-existing barriers to swimming lesson participation, the study examined voucher creation surveys for children participating between December 2021 and June 2022 who had not taken lessons in the preceding 12 months (n=79,553). Binary logistic models were used to analyse associations between sociodemographic factors and reported challenges to participation.

Cost remained a major barrier for families from lower socioeconomic backgrounds (aOR 1.65, 95% CI 1.54-1.75) and with children with disabilities (aOR 1.27, 95% CI 1.13-1.43), while regional families indicated limited swim school availability (aOR 5.21, 95% CI 4.37-6.21). Families speaking languages other than English were more likely to view lessons as unimportant (aOR 1.95, 95% CI 1.52-2.49) or their child too young (aOR 2.55, 95% CI 2.38-2.73).

Translational outcomes

The findings from this study are part of the NSW government’s evaluation of the First Lap program, and will be used to inform ongoing efforts to improve equitable access to swimming lessons for children in NSW. They are relevant to the First Lap program and other initiatives to support swimming lessons and water safety.

Future actions

To address these disparities, a multi-pronged approach is recommended:

- Targeted financial assistance: Increased support through voucher programs or needs-based subsidies for families.
- Culturally inclusive programs: Development and promotion of inclusive swim programs and support services for culturally and linguistically diverse families.
- Regional and remote expansion: Support for establishing or expanding swim schools in underserved areas, potentially through incentives or collaboration with community centres.
- Workforce development: Evaluation and investment in initiatives like subsidized training to ensure a sufficient and qualified swim instructor workforce, particularly in underserved areas.

co-designed weekly meal box for the neurological community with moderate disability

Ms Melanie Jolly[1], Dr Travis Cruickshank[1,2], Dr Joanne Rees[1], Dr Amanda Devine[1,5], Dr Simon Laws[1,3,4]
[1]Centre of Precision Health, Edith Cowan University, Joondalup, Australia, [2]Perron Institute for Neurological and Translational Science, Perth, Australia, [3]Collaborative Genomics and Translation Group, Edith Cowan University, Joondalup, Australia, [4]Curtin Medical School, Curtin University, Perth, Australia, [5]Nutritional and Health Innovation Research Institue, Edith Cowan University, Joondalup, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem/issue that requires public health action? [Context and aim]
Neurological disorders, recognised as the leading cause of disability and the second leading cause of death globally, often lead to significant challenges in meal preparation and consumption for those affected. These challenges frequently result in malnutrition, which negatively impacts health and quality of life and may hasten the disease process.

What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]
Our research team, in collaboration with You Plate It and with sustained engagement from the neurodegenerative community, has initially developed a meal box solution tailored to individuals with mild neurological disabilities. However, this meal box solution is not suitable for people with moderate disabilities who present with cognitive, movement, and swallow difficulties, limiting their ability to prepare ingredients, cook, and eat meals.

How has this been used in practice? [Translational outcomes]
To address this gap and unmet need, we are expanding this initiative using a double-diamond approach. This project employs a structured framework consisting of the following steps: 1) Conducting a comprehensive literature review to understand the complexities of meal preparation and eating difficulties faced by this population, along with the contributing factors; 2) Conducting an online activity via Miro to capture the perspectives of people living with the disease and health professionals on the difficulties of preparing and eating meals, as well as on the utility of a meal box solution; 3) Hosting co-design workshops, both in-person and online, that bring together people with lived experience and health professionals to gather detailed insights into the practical challenges of meal preparation and consumption, and the utility of a meal box solution; 4) Developing a prototype meal box solution in collaboration with our industry partner, You Plate It; 5) Coordinating a simulation session with community members to practically test the meal preparation process using the meal box, noting any difficulties experienced to iteratively refine the prototype; and 6) Implementing a feasibility trial with individuals who have moderate neurological disabilities to assess the practicality and acceptability of the meal box solution.

What actions should we take in the future to address the problem/issue? [Future actions]
This multi-phase project aims to enhance dietary independence and overall quality of life for those with severe neurological challenges, providing a tailored nutritional solution that is both practical and supportive of their health needs.

133

Exhausted lungs: WA workers' experiences of workplace exposure to diesel engine exhaust

Dr Matthew Govorko[1], Dr Natalia Lizama[1,2]
[1]Cancer Council Western Australia, Subiaco, Australia, [2]Curtin University, Bentley, Australia

1D - Communicate and Collaborate: Advancing health care outcomes, Hamersley, September 17, 2024, 1:30 PM - 3:00 PM

CONTEXT:
Any worker can be exposed to diesel engine exhaust (DEE), a known carcinogen, if they work with or around diesel-powered engines. Each year, approximately 130 Australians develop lung cancer due to past exposure to DEE at work. To date, relatively little is known about workers' awareness of the health effects of DEE exposure.

AIM:
This study sought to measure the experiences and attitudes towards workplace exposure to DEE among Western Australian (WA) workers.

METHODS:
In an online survey, WA workers from a range of industries described the use of diesel engines in their workplace. Respondents who used or worked close to diesel-powered engines reported actions that were taken to manage risks of workplace DEE exposure. Workers reported their awareness of the health effects of DEE.

RESEARCH FINDINGS:
Of the 1,199 survey respondents, 384 workers used or worked close to diesel-powered engines at least occasionally. Actions taken to manage risks associated with DEE included switching off engines when not in use, only using engines outdoors, and using emission control devices. More than one in ten workers (14%) reported that no actions were taken to manage risks associated with DEE. Two in five workers (42%) had not received any training or information about DEE safety measures or health risks. Nearly three quarters (71%) of workers who used or worked close to diesel engines were not aware of any health effects associated with DEE.

TRANSLATIONAL OUTCOMES:
Findings are being used to inform and support policy and advocacy efforts calling for increased awareness, stronger compliance and enforcement activity, and improved government regulation.

FUTURE ACTIONS:
Work health and safety regulators, industry, and peak health groups need to improve health risk communication targeting relevant industries to raise awareness of the health risks and control measures associated with DEE exposure.

Value co-destruction behaviours when young men resist preventative health services

Dr Jacquie McGraw[1], Professor Rebekah Russell-Bennett, Professor Katherine. M. White, Associate Professor Rory Mulcahy
[1]The University Of Queensland, Brisbane, Australia, [2]University of Canberra, Canberra, Australia, [3]Queensland University of Technology, Brisbane, Australia, [4]University of the Sunshine Coast, Moreton Bay, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Is the value of our health services being destroyed for a large cohort of Australians? Compared to women, Australian men have a lower life expectancy, higher death rates in younger age groups, usually from preventable causes, and less healthy life years. Less than 40% of Australian men say they have regular primary preventative health check-ups and 80% say they will only go to the doctor when feeling sick.

Men have cited barriers to using preventative health services such as threat to masculinity, feeling uncomfortable in the health service environment, and perceived risks such as hidden costs and inconvenient access options. These barriers indicate the value of the service offered is being reduced or destroyed, somewhere in the customer journey.

This research surveyed 296 young men who had not used a preventative health service two years beforehand to identify different resistance value co-destruction behaviours and their antecedents. The research also sought to find where in the customer journey these value co-destruction behaviours might be reduced.

Structural equation modelling found a hierarchical relationship between four resistance value co-destruction behaviours: accidental, postponement, rejection, and opposition. Three perceived risks (functional, emotional, and social) fully mediated relationships between antecedents and passive and active value co-destruction behaviours. Furthermore, active value co-destruction behaviours (rejection and opposition) can be reduced early in the customer journey.

Findings indicate for young men, active value co-destruction behaviours are likely to be reduced when there is open communication decreasing the impact of perceived risks of using a service. Specifically, when perceived emotional risk (e.g. feeling embarrassed) and social risk (e.g. using a service when not sick) are reduced earlier in the service encounter, so are the value co-destruction behaviours. To increase men's likelihood of using the service again, practitioners can mitigate value co-destruction when young men first access a preventative health service.

Differences in diet among rural-to-urban migrants and lifetime rural and urban residents

Dr Shirin Jahan Mumu[1], Ayesha Akter[2], Prof Dafna Merom[1]
[1]Western Sydney University, Sydney, Australia, [2]Bangladesh University of Health Sciences , Dhaka, Bangladesh

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and Aims

Currently, many low and middle-income countries are experiencing rapid urbanization, with a constant increase of rural-to-urban migration. As a consequence, diet changes from a traditional towards a Western-like diet are expected. To test this assertion this study examined the dietary patterns of rural-to-urban migrants and lifetime rural and urban residents in Bangladesh.

Methods and Findings

The diets of rural-to-urban migrants, their lifetime rural dwelling sibs and lifetime urban residents were assessed by an interviewer-administered validated food frequency questionnaire. A total of 427 male participants aged ≥18 years were included in the analysis. Mean reported energy intake was higher in rural group compared to migrants and urban (mean±SD 3930±1028, 2823±914 and 2625±992 Kcal/day resp., $p<0.001$). The same pattern was seen for carbohydrate and protein intake, however, the proportion of energy from fat was highest in urban residents (17%) followed by migrant (13%) and rural residents (12%). Good fats like mono and poly-unsaturated fatty acid showed a decreasing trend from rural to migrant to urban ($p<0.001$). The highest frequency intake of fish, leafy vegetables, other vegetables and fruits were among the lifetime rural group whereas the consumption among migrants and urban residents were similar and significantly lower ($p<0.001$). Most migrants reported dietary change since migration to city (40% to 76%) for items like oily foods, fast food, soft drinks, energy drinks, processed/canned foods, red meat and eating out.

Translational outcomes

Dietary intake is of interest because of its association with prevention of chronic diseases like cancer, diabetes, cardiovascular diseases. The results from this study indicate that migration from rural to urban areas may have undesirable changes to the migrants’ diet.

Future actions

To develop useful dietary recommendations for rural-to-urban migrants, qualitative research looking in depth at the reasons and modifying factors of changes to their diet are thoroughly needed.

136

Monitoring health inequalities using small-area data for a local public health unit

Dr Catherine Giuliano[1], Dr Frances Ampt, Dr Charles Alpren
[1]Western Public Health Unit, Western Health, Melbourne, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

Context and Aim

The Western Public Health Unit (WPHU) delivers place-based public health to a catchment of eight local government areas in Melbourne, Australia. Strategic objectives include tackling public health challenges with an explicit focus on health equity. While national surveillance of health inequalities is widely adopted, insights derived from smaller-area data may better inform local public health action. We explored the feasibility of monitoring health inequalities in the context of an Australian metropolitan local public health unit.

Methods and analysis/findings

Guided by the World Health Organization's Handbook on Health Inequality Monitoring, we consulted senior team members to select health topics, indicators and dimensions of inequality most relevant to our catchment population, and mapped data sources to determine whether sufficient data were available for analysis. Twenty health topics, 39 health indicators and 6 dimensions of inequality were shortlisted. Data mapping indicated the availability of 21 indicators for monitoring, against 6 dimensions of inequality: geographic region, age, socio-economic disadvantage, ethnicity, sex and gender.

Translational outcomes

Through consultation and a data mapping process, we found that monitoring health inequalities using small area data is feasible. Some limitations exist, including small cell counts due to disaggregation of the data across multiple dimensions. Nonetheless, unique benefits for place-based public health can be derived from monitoring health inequalities using small-area data, including: 1) identifying the size, location and characteristics of communities affected by health inequalities; 2) enabling tailored interventions, policies and programs to respond to inequalities at a scale proportionate to the level of disadvantage and; 3) evaluating the impact of equity-oriented interventions.

Future actions

Local public health—like global public health—is reliant on epidemiology; of knowing the 'who and where' so that public health action is commensurate and proportionate to populations with the greatest need. We encourage local public health units and councils to consider this method of analysis. Revealing what is hidden behind state or national figures will help identify and address inequities in health at a local level.

Sex-based socioeconomic inequalities in diabetes prevalence: an intersectionality study using small-area data

Dr Catherine Giuliano[1], Dr Frances Ampt, Dr Charles Alpren
[1]Western Public Health Unit, Western Health, Melbourne, Australia

1C - Social Determinants of Health: the challenge, Golden Ballroom South, September 17, 2024, 1:30 PM - 3:00 PM

Context and Aim

In Australia, large health disparities are observed between population groups defined by geography, sex, ethnicity and socio-economic position. However, national and state averages may mask disparities between discrete communities in which people live, offering little to guide local public health action. As part of an investigation into health inequalities within the catchment of the recently established Western Public Health Unit (WPHU), we explored the prevalence of self-reported diabetes in 25–49-year-olds, using small-area data from the 2021 Census and applying an intersectionality lens.

Methods and findings

We calculated the prevalence of self-reported diabetes in the WPHU catchment and stratified by local government area (LGA), area-level index of relative socio-economic disadvantage (IRSD quintile at Statistical Area 1 level) and sex. The prevalence of diabetes was 30% higher among populations living in quintile 1 areas (the most socio-economically disadvantaged) compared to quintile 5 areas (3.2% vs 2.0%) The double-disaggregation of sex and IRSD revealed evidence of gender inequity, whereby the effect of socioeconomic disadvantage on diabetes prevalence was greater for women than men. This was more evident in outer-suburban local government areas. In one LGA with high overall prevalence of diabetes for both sexes (2.9%), the prevalence in women was 230% higher in the most disadvantaged areas compared to the least disadvantaged. In contrast, the difference in prevalence for men between the most and least disadvantaged areas was 40%.

Translational outcomes

Our results suggest that underlying gender inequity (social structures, attitudes and allocation of resources and power that bias against women) may be more pronounced in some areas and hence, socioeconomic status has a greater impact on health for women than men in these areas. WPHU will consider where sex and socioeconomics may interplay in programs, initiatives or policy, to ensure we provide equitable public health.

Future actions

WPHU will continue to explore gender dynamics that may be playing out across the catchment and underpinning these findings. We will consider additional indicators that include processes, risk factors and behaviours which could highlight key drivers of the inequalities revealed in this analysis and inform future interventions.

Voices into action: applying Indigenous data sovereignty to Aboriginal health and wellbeing

Dr Emma Haynes[1], Lesley Nelson[5], Heather D'Antoine[2], Assoc/Professor Judith Katzenellenbogen[1], Professor Dawn Bessarab[1], Professor Roz Walker[3], Lindey Andrews[4], Professor Elizabeth Armstrong, Nicole Bowser[5], Jasmin Brown[5]
[1]University Of Western Australia, Crawley, Australia, [2]University of Queensland , , Australia, [3]Murdoch University , , Australia, [4]Wungening Aboriginal Corporation, Perth, Australia, [5]South West Aboriginal Medical Service, Bunbury, Australia, [6]Edith Cowan University, Bunbury, Australia

3A - Racism in Health and Decolonisation of the System, Golden Ballroom North, September 18, 2024, 11:00 AM - 12:30 PM

Context: Aboriginal community-controlled health organisations (ACCHOs) are constrained by short-term funding models, with burdensome administrative and accountability requirements. These requirements are misaligned with Indigenous priorities that encompass holistic, relational and strengths-based health and wellbeing (HWB) concepts. Mitigating this misalignment, the National Agreement on Closing the Gap (NA-CtG) emphasises access to, and the capability to use, locally-relevant information as foundational to Indigenous-led decision-making. We aimed to develop a model for ACCHOs incorporating Indigenous data sovereignty (IDS) principles as a practical implementation of NA-CtG policies.

Methods: We synthesised findings from a group of Indigenous and non-Indigenous collaborators with years of experience in health program/service delivery and research. This included literature reviews and research related to health program delivery and lived experience of working in health services. Key concepts identified were aligned with the five Maiam nayri Wingara IDS principles: Indigenous control of the data ecosystem (data creation & development, stewardship, analysis, and dissemination); Accessible and available data that is contextual and disaggregated; Data is relevant, empowering sustainable self-determination and effective self-governance; Data structures are accountable to Indigenous peoples; Data is protective, strengths-based and respects Indigenous interests, including after dissemination.

Translational outcomes: Our approach facilitates the development and implementation of new/innovative culturally-informed data, measures and tools aligned to community health priorities and organisational imperatives. Based in Aboriginal research methods and IDS principles, the model includes: 1. A process for the development and evaluation of new measures/tools; and 2. A framework of health service implementation actions. This model aims to enable ACCHOs to have the authority, autonomy and data to put community priorities into action in the planning, delivery and reporting of health programs/services.

Future actions: Rather than further research identifying community HWB priorities, the priority is to translate existing research into practice. We recommend funding studies to implement and evaluate the proposed model.

The Double Burden of Diseases in DRCongo: Impact on Access to Medicines

Mrs Judith Marie Tshibwabwa[1], Mr Henock Misekabo Makoy[1], Prof Dr Francois Mbutu Panda[2]
[1]University Clinics Of Kisangani, , RD Congo, [2]Faculty of Medicine, University of Kinshasa, , DR Congo

5A - Cultural Competence in Healthcare and Public Health, Golden Ballroom North, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim: Most African countries, such as the Democratic Republic of the Congo, are experiencing accelerating socioeconomic and nutritional transitions, leading them to face “The Double Burden of Diseases," characterized by the increasing prevalence of non-communicable diseases (NCD) and the long-standing challenge of infectious diseases. This scenario has impacted the local pharmaceutical industry with an adverse effect on primary healthcare. This study aimed to present challenges related to the Double Burden of Diseases and their impact on access to essential medicines.

Methods and analysis: A rapid review of the literature from 2013 to 2023 was carried out. An initial search on PubMed, SCOPUS, Web of Science, and AJOL yielded 22 references, 7 of which were included after profound qualitative analysis.

Findings: Access to medicine has been impacted with the increase of NCD. Data reported that access to essential medicines is already problematic for over two third of DRC’s population. Additionally, the Double Burden of Diseases scenario has worsened the situation. The high price of medicines for NCDs such as cancer, the high demand for medicines whose quality is no longer adequately assessed, antibacterial resistance, and inequity in the distribution of drugs are the most aspects. Furthermore, there is an improper use of pharmaceuticals as a result of the staffing crisis due to the double burden. There is a significant unmet demand for diagnoses and treatment of NCDs and infectious diseases.

Future actions: The double burden has importantly acted on access to essential medicines. Governments and organizations like WHO should have a leading role in designing policies with innovative approaches applicable to the various stakeholders.

Critical windows for biothermal exposure and gestational diabetes mellitus in Western Australia

Dr Sylvester Dodzi Nyadanu[1], Dr Jennifer Dunne[1], Assoc Prof Gizachew A. Tessema[1], Dr Aditi Roy[1], Prof Gavin Pereira[1]
[1]Curtin University, School of Population Health, Perth, Australia

1B - Health ramifications of climate change, Golden Ballroom Centre, September 17, 2024, 1:30 PM - 3:00 PM

Background: Gestational diabetes mellitus (GDM) is a major pregnancy complication of global public health concern. Few studies suggest that climate-related exposures may contribute to the GDM risk. We investigated the association between biothermal stress (Universal Thermal Climate Index, UTCI) and GDM risk to identify potential critical susceptible windows, vulnerable populations, and interaction effects of fine particulate air pollution.

Methods: We linked 413,579 singleton pregnancies with 5% cases of GDM between 1 January 2000 and 31 December 2015 in Western Australia to daily space-time varying UTCI from three months preconception to the date of GDM diagnosis or birth delivery. Novel distributed lag nonlinear logistic regressions were performed to estimate weekly and cumulative adjusted odds ratios, interaction effects, and stratified analyses.

Results: The mean (standard deviation) UTCI was 14.5 ℃ (2.5). Relative to the median exposure (14.2 ℃), lower (1st-10th centiles) and higher (90th-99th centiles) UTCI exposures were associated with increased odds of GDM, showing a slightly inverted U-shape with observable critical windows in gestational weeks 6-34. The most elevated exposure-time-response association was 1.06 (95% CI 1.05, 1.07) in gestational weeks 18-20 at the 99th or 1st exposure centiles relative to the median. Preconception exposure showed essentially no association. Extreme biothermal stresses and high fine particulate air pollution exposures interactively increased the odds of GDM. For both lower and higher biothermal exposures, the odds of GDM were consistently more elevated in female births, and pregnancies by women who were non-Caucasians, < 35 years old, nulliparous, and resided in low or moderate socioeconomic areas. Pregnant women with and without pre-pregnancy medical conditions were at higher risk for higher and lower exposures, respectively.

Conclusion: Both low and high biothermal exposures were associated with increased odds of GDM with identified critical periods. Targeted climate-related health interventions may contribute to minimising the GDM risk, especially among vulnerable populations.

SCANNER AI system and youth's exposure to online marketing of harmful products.

Dr Navoda Liyana Pathirana[1], Mr Luai Saif[1], Prof Asim Bhatti[1], Dr Florentine Martino[1], Dr Aimee Brownbill[2], Dr Bridget Kelly[3], Dr Emma Boyland[4], Prof Nicholas Carah[5], Prof Becky Freeman[6], Prof Mimi Tatlow-Golden[7], Prof Anna Peeters[1], Prof Kathryn Backholer[1]
[1]Deakin University, Melbourne, Australia, [2]Foundation for Alcohol Research and Education, , Australia, [3]University of Wollongong, Wollongong, Australia, [4]University of Liverpool, Liverpool, United Kingdom, [5]The University of Queensland, St Lucia, Australia, [6]University of Sydney, Camperdown, Australia, [7]The Open University, Milton Keynes, United Kingdom

3C - Evidence, strategy, and creativity to promote behaviors, policies, and practices, Golden Ballroom South, September 18, 2024, 11:00 AM - 12:30 PM

Aggressive promotion of harmful commodities such as unhealthy foods and alcohol contributes to non-communicable diseases such as obesity, diabetes, and some cancers. Nevertheless, harmful marketing is rarely regulated, especially in online media, mostly because of difficulties in monitoring personalised online activities. We developed SCANNER, a deep learning system to automatically detect and classify the digital marketing of harmful products (vaping and tobacco products, gambling, alcohol, and unhealthy foods high in fat, sugar, and salt) at an accuracy higher than 95%. We are conducting a study to quantify children's and youth's exposure to the marketing of harmful products using SCANNER. We are collecting screen recordings from 300 young people between the ages 8 -and 25-years in Australia, representing 30% of their usual digital screen time over 2 days (one weekday and one weekend day). All participants will complete a post-study survey on their recall of exposure to online marketing of harmful products. We will present the interim findings for at least 30 participants, whose data will be analysed by September 2024, quantifying children's, and youth's exposure to online marketing of vaping and tobacco products, gambling, alcohol, and unhealthy foods in Australia using SCANNER. Our methodological approach can support implementation and evaluation of regulations to protect children and youth from marketing of harmful products when online.

Developing an infodemic management toolkit for immunization: An iterative consultation process

Dr Becky White[1], Lisa Menning[1], Jun Ryan Orbina[1], Surani Abeyesekera[2], Tina Purnat[1], Kai Von Harbou[1], Nedret Emiroglu[1], Sandra Machiri[1]
[1]World Health Organization, Geneva, Switzerland, [2]UNICEF, New York, United States

1D - Communicate and Collaborate: Advancing health care outcomes, Hamersley, September 17, 2024, 1:30 PM - 3:00 PM

Context and aim

An infodemic is an overwhelming amount of information, accurate and otherwise, that accompanies health emergencies such as outbreaks and other health crises. Infodemic management work is done by people from different positions and professions, with differing resources at their disposal, and applied to a range of health issues. An infodemic insights report can help identify questions, concerns, information voids and circulating mis- disinformation to help inform response. Health issue specific guidance can be useful for those who may have infodemic management as part of their regular work but want to identify infodemic insights.

Methods and analysis/research findings

In 2023, WHO and UNICEF released guidance on ‘how to build an infodemic insights report in 6 steps’. This report gives general guidance and a more specific document, with practical and specific tools in standalone short focus areas that are immunization specific, was developed to guide infodemic managers or those working on vaccine demand and acceptance and by vaccination field workers. The toolkit is intended for work on vaccines across the life course. Rounds of iteration with experts both internal and external to WHO provided useful feedback, review and suggestions. The toolkit provides information targeted at different resource and capacity levels.

Translational outcomes

The consultative process resulted in a toolkit informed by experts and those who are likely end-users of the document. The consultations sought to align the toolkit with immunization programme processes and with other tools and interventions for improving vaccine uptake. Having health issue specific guidance is a useful addition to the infodemic manager toolbox and tools such as these can be an important component of community resilience and health security initiatives.

Future actions

The importance of the infodemic and management of misinformation is well recognised as a public health concern, both in Australia, and internationally. Expert informed guidance on health topic specific areas can be a useful addition to the infodemic manager toolbox. For immunization, infodemic management can support programme activities to build vaccine confidence and improve uptake and manage vaccine-related events. Future work can determine how this can apply to other health issues.

The Net Zero Partnership to decarbonise NSW Health public hospitals.

Dr Erin Mathieu[1], Dr Kristen Pickles[1], Dr Luise Kazda[1,2], Dr Scott McAlister[1,2,3], Professor Alexandra Barratt[1,2], Professor Katy Bell[1,2]
[1]Wiser Healthcare, University of Sydney , Australia, [2]HEAL, Healthy Environments and Lives, University of Canberra, Australia, [3]University of Melbourne, Melbourne, Australia

3B - Public health systems and transitioning environments, Golden Ballroom Centre, September 18, 2024, 11:00 AM - 12:30 PM

What is the problem?
Healthcare is responsible for 6.6% of NSW's total carbon emissions and 8% of its waste, with 25% of carbon emissions coming from NSW hospitals. Currently only 60% of healthcare is high value, with 40% considered wasteful, low value or harmful. As each test or procedure produces a carbon footprint, low value care creates an avoidable environmental cost, in addition to patient risks and financial costs. To achieve net zero healthcare, health systems must decarbonize, and cull low value care.

How has the problem been addressed?
In the first significant, strategic investment by a state health department towards achieving net zero healthcare, a partnership between NSW Health’s Climate Risk and Net Zero Unit and researchers at Wiser Healthcare was formed in January 2023 with joint funding. We support ten projects across metropolitan and regional NSW public hospital in clinical areas including allied health, emergency medicine, intensive care, medical imaging, medical and nursing services. Example projects: 1) The Gloves Off project – a staff intervention to reduce unnecessary use of non-sterile gloves (nursing); 2) Optimising Pharmaceutical Waste Management to reduce waste and avoid water and soil contamination (pharmacy); 3) Comparison of single use versus reusable surgical supplies (surgery); 4) Reducing energy consumption in medical (CT) imaging; 5) Reducing unnecessary pathology testing (Emergency Dept) 6) Reducing carbon footprint of volatile anaesthetic gases.

Projects are led by clinical champions who act as change agents while conducting projects suitable for scale up. Key principles for this partnership: a multidisciplinary approach, codesigned interventions and evaluations, team-based support and development of research capability.

How is this being used in practice?
After 18 months, the Net Zero Partnership projects are demonstrating reductions in carbon emissions, waste, electricity consumption and financial costs. The co-creation enhances relevance and potential for translation, while the evaluations provide implementation and effectiveness data for scale up across NSW and interstate.

Future actions?
We have demonstrated the potential of practice-research partnerships. With financial support from Departments of Health in other Australian states and territories, such partnerships can help realise the goal of the National Health and Climate Strategy (released in December 2023) to achieve net zero healthcare in line with international climate change commitments. Future partnerships should ensure that policy partners set priority targets, research partners lead design of interventions and evaluations, and clinician partners lead intervention implementation.

145

Informing infodemic management capacity building with a robust and adaptable capability tool

Dr Becky White[1], Catherine Bertrand-Ferrandis[1], Kai Von Harbou[1], Ljubica Latinovic[1], Nedret Emiroglu[1], Sandra Machiri[1]
[1]World Health Organization, Geneva, Switzerland

1D - Communicate and Collaborate: Advancing health care outcomes, Hamersley, September 17, 2024, 1:30 PM - 3:00 PM

Context and aim

Infodemic management competencies and indicators have been included in key WHO pandemic preparedness documents and guidance such as the Preparedness and Resilience for Emerging Threats (PRET) initiative, the Health Emergency preparedness and response (HEPR) framework and in the WHO benchmarks for strengthening health emergency capacities. Training and capacity building is needed to strengthen infodemic management skills and capacity, and a tool to define capabilities and inform training needs was needed.

Methods and analysis/research findings

An adaptable tool was developed and piloted to measure infodemic management capacity to inform training and capacity building needs. The tool was informed by previous work and adapted to cover a wide set of capabilities, informed by the WHO competency framework for the infodemic workforce. The tool was developed to cover the breadth of infodemic management work practice and structural support and included: who is conducting infodemic management work; structures in place to support; main activities; health topics focus areas; partnerships with other organisations; social listening and infodemic insights generation; as well as challenges, opportunities and training needs.

Translational outcomes

The capability tool was piloted in March – May 2024 to inform regional and country level trainings. The tool can be adapted to the specific situation, with a full survey able to be disseminated via an online survey platform, as well as a modified interview guide for key informants or settings where that is more appropriate. The ability to adapt to specific settings is important to ensure the results are as useful and tailored as possible. Infodemic management is a new field in public health and the tool provided useful assessment of infodemic management capabilities to inform capacity building needs.

Future actions

The importance of the infodemic and management of misinformation is now well recognised as a public health concern, both in Australia, and internationally. Training and capacity building is needed broadly and these are new skills for many health professionals. Targeted and informed training programs are important for upskilling the workforce, and tools that assess capabilities in robust and standardised ways using documents such as the competency framework are vital.

Filling in the missing pieces: mapping the charitable food sector in Perth

Dr Lucy Butcher[1,2], MS Frith Klug[2], Assocaite Professor Paula Hooper[2,4], Ms Amy Large[1], Ms Lucy Brewer[1], Ms Julia Win[1], Ms Sharonna Mossesson[2,3], Dr Claire Pulker[2,3], Professor Gina S.A Trapp[2,5,6]
[1]Population health, East Metropolitain Health Service, Perth, Australia, [2]Nutrition and Health Innovation Research Institute, School of Medical and Health Sciences, Edith Cowan University, Joondalup, Australia, [3]School of Population Health, Curtin University, Bentley, Australia, [4]School of Design, The University of Western Australia, Crawley, Australia, [5]Telethon Kids Institute, The University of Western Australia, , Crawley, Australia, [6]School of Medicine, The University of Western Australia, , Crawley, Australia

5B - Health promotion and sustainability, Golden Ballroom Centre, September 19, 2024, 1:15 PM - 2:45 PM

Context/Aim:
Understanding the charitable food sector's landscape is crucial for public health planning and promoting community well-being. Demand for food relief is growing at an unprecedented rate following the COVID-19 pandemic and subsequent cost of living crisis. Yet, the availability of food relief is poorly understood as many food provision activities are not registered with Local Government (LG) Authorities and are undertaken on an ad hoc basis. This project focuses on mapping the charitable food sector in 13 LG areas in metropolitan Perth.

Methods and research findings:
A dynamic map of the charitable food landscape will be created. This map will display the locations and geospatial metrics of provision and access to charitable food outlets across the 13 local government areas in the East Metropolitan Health Service region, classified by three subcategories: (1) Emergency Food Provision – groceries, (2) Emergency Food Provision – meals, and (3) Meal Preparation and Delivery. Charitable food will be identified using LG registered food business data and by using food relief websites and databases. All identified food relief activities will be geocoded to create spatial metrics of charitable food provision and access.

Translational Outcome:
The findings from this research have direct implications for public health planning and policy development. By mapping the charitable food sector, policymakers and public health officials can better allocate resources, improve service coordination and promotion, and address food insecurity more effectively. Understanding the geographical distribution of food assistance programs can lead to targeted interventions that prioritize underserved areas and vulnerable populations.

Future Action:
The charitable food sector activities should be mapped across Australia and findings into public health plans and community initiatives. Collaborative partnerships between charitable organisations, government agencies, and public health entities are essential for optimizing resource allocation and improving access to nutritious food options. Implementing data-driven decision-making processes, enhancing communication channels among stakeholders, and fostering community engagement can strengthen the charitable food sector's capacity to support public health goals.

Investigating healthy information environment approaches as a preventive strategy for infodemics

Dr Becky White[1]
[1]Curtin University, Perth, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim

An infodemic is the overwhelming amount of information, accurate and otherwise that accompanies an acute health event. This includes misinformation and disinformation, but also the questions and concerns people have, and information voids. During COVID-19, the impact of the infodemic has been seen internationally, with well evidenced impacts on public health. While infodemic mitigation and management work is now well developed from the COVID-19 emergency, there is a need to better understand prevention work and how a coordinated, comprehensive strategy that takes a systems approach for prevention for Australia could be developed.

Methods and analysis

The healthy information environment model defines the elements that impact on the information environment across: policy; commercial determinants of health; credible, accurate health information; health information equity; and digital, media, information, science and health literacy. Underpinning these are the social determinants of health. Approaching a preventative strategy that takes a systems approach, looking broadly at the drivers and determinants of infodemics is an important next step for infodemic management.

Translational outcomes

A preventative strategy will benefit the Australian community by raising awareness of the impact of infodemics, by increasing community resilience to identify and understand and strengthen workforce and government capacity to respond. Australians are diverse and looking at a range of ways solutions have been implemented globally is vital. Prevention is better than reacting, and with the significant lessons learnt during the COVID-19 pandemic, proposing a coordinated approach will help to better prepare Australia for the next pandemic.

Future actions

An infodemic is what happens during a health emergency, but the impact of a poor information environment is being seen across health issues with evidence of misinformation impacting health issues such vaping, non-communicable diseases, climate change, vaccination, as well as social issues such as the recent Voice referendum. Rather than just focussing on individual health issues, a cross-cutting coordinated approach is needed. Having more understanding of the infodemic as an overall health determinant and what works on a structural and strategic level to improve it is important. Infodemic management is a new field and there is a need to upskill the workforce.

Parent/carer experiences in redeeming the NSW First Lap swimming lesson voucher

Dr Amy Peden[1], Dr Rona Macniven[1], Ms Natalie Windle[1]
[1]School Of Population Health, UNSW Sydney, Kensington, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

What is the problem/issue that requires public health action?
Swimming is a popular, enjoyable, and important form of physical activity. Swimming skills play a vital role in water safety and drowning prevention, particularly among young children. The First Lap program is a New South Wales government swimming lesson subsidy voucher program for preschool-aged children. This study examined parent/carer program views and experiences in 2021-2022, specifically reasons for voucher non-redemption.

What do we know or have we learned to address this problem/issue, and how has this finding been derived?
A thematic analysis examined 1,031 parent/carer qualitative responses concerning reasons for voucher non-redemption and overall views and experiences of the program in an online parent/carer survey.
Voucher non-redemption was evident through: seasonal, weather and health; program parameter; parent/carer (user); and swim school (provider) themes. Despite non-redemption, parent/carer program views were additionally evident through: positive positive feedback about the program and its objectives; evidence of knowledge and awareness of the importance of water safety and learning to swim; lesson affordability concerns.

How has this been used in practice?
This analysis has a critical role in informing future engagement with both program users and providers, acknowledging that some ‘teething problems’ of the program may have led to these findings. It is important that program rationale and background is clearly communication to parents/carers.
The findings reflect some of the identified pre-existing barriers to swim lesson participation including swim school accessibility and parent/carer availability, noting the vouchers may not have solely alleviated these barriers. Swim school and lesson availability, accessibility, and affordability can be addressed through clear engagement and communication with both the user and provider sides. This would improve the parent/carer experience and contribute to incentivising parents/carers to enrol their preschool-aged children in swimming lessons.

What actions should we take in the future to address the problem/issue?
Voucher programs must consider the impacts of the broader socio-ecological context and ecosystem. Potential solutions include targeting voucher provision on a means tested basis to address structural barriers and social determinants of health.

Co-benefits of nutrition interventions for obesity prevention: a systematic review

Dr Phuong Nguyen[1], Dr Jaithri Ananthapavan[1], Dr Victoria Brown[1], Dr Marufa Sultana[1], Mr Moosa Al Subhi[1], Ms Nicole Ward[1]
[1]Deakin Health Economics, Melbourne, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

Introduction: There are a wide range of interventions that can be implemented to improve dietary intake. In addition to improving health, these interventions may also positively influence broader outcomes, resulting in social, educational and/or environmental co-benefits of intervention. While there have been studies exploring co-benefits of nutrition interventions, these impacts need to be quantified to assess the overall benefits of interventions. This review investigated the quantified co-benefits of nutrition policies, programs and interventions.
Methods: A systematic review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (PROSPERO registration number CRD42022358139). Five databases (Medline Complete, Global Health, Environment Complete, SocINDEX and Embase) were searched for studies published between January 2012 and 13 September 2022. Three concepts and their related terms were applied across all databases: (1) co-benefits, (2) interventions, and (3) nutrition interventions or food systems interventions with a nutrition component. Non-health outcomes were classified into the domains of social, educational, and environmental co-benefits Studies were assessed for risk of bias using the Mixed Methods Appraisal Tool (MMAT) and the Cochrane Methods Risk of Bias 2 (RoB 2) tool.
Results: Out of 20 studies, the most frequently reported outcome domain was educational outcomes (n=10), followed by social (n=8) and environmental (n=4). There was an overlap in the number of co-benefits within studies. Most studies reported generally positive impacts of multi-component interventions on educational and social co-benefits. Outcome measurement instruments varied, particularly for social outcomes, which limited conclusions on the magnitude of co-benefits of nutrition policies and programs.
Conclusion: Identification of the co-benefits of nutrition initiatives provides a more holistic assessment of the societal value of these initiatives. Development and standardisation of co-benefit outcome measures and measurement instruments will enhance understanding of the impact of diet and nutrition interventions, beyond health outcomes.

Using game-based learning to improve social determinants of health education

Dr Heather Russell[1], Ms Lisa Hampshire[1], Dr Marguerite Tracy[2], Professor Annette Burgess[3], Dr Matthew Tyne[4], Dr Christopher Harrison[5]
[1]School of Rural Health (Dubbo/Orange), The University of Sydney, Orange , Australia, [2]General Practice Clinical School, The University of Sydney, Sydney, Australia, [3]Sydney Medical School, The University of Sydney, Sydney, Australia, [4]National Centre for Cultural Competence, The University of Sydney, Sydney, Australia, [5]Sydney School of Public Health, The University of Sydney, Sydney, Australia

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem requiring public health action?
There are growing calls for health professional graduates to understand and address the social determinants of health (SDoH) however, evidence of the most effective methodologies in SDoH education is lacking. Game-based learning offers a powerful approach to improve learner engagement in safe learning environments. The Australian Rural Health Game is a novel board game designed to support learners' understanding of the SDoH contributing to health inequities.
What have we learned to address this problem?
The Australian Rural Health Game represents one year in fictional rural patients' lives. Players select a patient profile and are exposed to risk and protective events throughout the game. At the end of the game, players determine whether their overall health has improved, deteriorated, or remained stable. Progress in the game is modulated by the SDoH and is supported by robust evidence to enrich the learning experience.
How has this been used in practice?
The Australian Rural Health Game has been integrated into the Sydney Medical School curriculum with the capacity to be further utilised in health professional education. The game is purposely designed to limit the agency of players and demonstrate the impact of the SDoH on players' overall health and wellbeing. Robust discussion about the effects of the SDoH at the individual, community, and population level is generated by game play.
What actions should we take in the future to address the problem?
Innovative teaching strategies to enhance learner engagement with the SDoH are urgently needed to better prepare graduates and support action on health inequities. The Australian Rural Health Game offers a game-based learning strategy to enhance the quality of teaching and increase learner engagement with the SDoH. The Australian Rural Health Game will be made widely available as a tool in health professional education.

Influence of maternal adiposity on offspring neurodevelopmental and psychiatric outcomes: a meta-analysis

Dr Bereket Duko[1,2,3], Dr Tesfaye S. Mengistu[1], Dr David Stacey[1,3], Professor Lisa J Moran[4], Associate Professor Gizachew Tessema[2], Professor Gavin Pereira[2], Dr Asres Bedaso[7], Dr Amanuel Gebremedhin[2], Professor Rosa Alati[2], Professor Oyekoya T Ayonrinde[5], Associate Professor Beben Benyamin[1,3,6], Associate Professor S.Hong Lee[1,3,6], Professor Elina Hypponen[1,3]
[1]Australian Centre for Precision Health, UniSA Clinical & Health Sciences, University of South Australia, Adelaide, SA 5001, Australia, [2]Curtin School of Population Health, Curtin University, Kent St, Bentley, Perth, WA 6102., Australia, [3]South Australian Health and Medical Research Institute,, Adelaide, SA 5000, Australia, Australia, [4]Monash Centre for Health Research and Implementation, Monash University, Clayton, Victoria, Australia, Australia, [5]Department of Gastroenterology and Hepatology, Fiona Stanley Hospital, Murdoch, Western Australia, Australia, Australia, [6]UniSA Allied Health and Human Performance, University of South Australia,, Adelaide SA 5001, Australia, [7]School of Public Health, Faculty of Health, University of Technology Sydney, Ultimo, NSW, Australia., Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Background: Maternal preconception and pregnancy overweight or obesity are linked to adverse perinatal outcomes, but their impact on neuropsychiatric and behavioral problems in offspring remains unclear. This study examined the influence of maternal overweight/obesity (adiposity) on adverse neurodevelopmental and neuropsychiatric outcomes in offspring.
Methods: Following PRISMA guidelines, we searched PubMed, EMBASE, Scopus, and Web of Science for eligible studies and assessed their quality using the Newcastle–Ottawa Scale. Using inverse-variance random-effects meta-analysis models, we computed global and subgroup pooled effect estimates with 95% confidence intervals (CIs). Separate effect estimates were calculated for preconception and pregnancy overweight or obesity, and outcomes were stratified by ADHD, ASD, mood and anxiety disorders, conduct disorder (CD), eating disorders (ED), and sleep-related and peer relationship problems.
Findings: Thirty-four observational epidemiological studies were included, comprising 3,674,633 mother-offspring pairs. Increased pooled risks were found for ADHD [AOR=1.10, 95% CI: 1.08-1.12], ASD [AOR=1.20, 95% CI: 1.11-1.29], mood and anxiety disorders [AOR=1.07, 95% CI: 1.04-1.10], CD [AOR=1.06, 95% CI: 1.03-1.10], and peer relationship problems [AOR=1.06, 95% CI: 1.02-1.10] in offspring exposed to maternal preconception overweight or obesity. Similarly, elevated risks were noted for ADHD [AOR=1.12, 95% CI: 1.05-1.19], ASD [AOR=1.10, 95% CI: 1.01-1.20], mood and anxiety disorders [AOR=1.13, 95% CI: 1.04-1.22], CD [AOR=1.14, 95% CI: 1.01-1.28], and peer relationship problems [AOR=1.19, 95% CI: 1.06-1.34] in offspring exposed to maternal pregnancy overweight or obesity. No association was observed between maternal overweight/obesity and eating disorders or sleep-related problems.
Conclusions and future actions: Our findings highlight the importance of targeted preconception and pregnancy weight management interventions to potentially reduce the impact of maternal overweight or obesity on adverse neurodevelopmental and psychiatric outcomes in offspring.

Co-creating a multi-strategy intervention to sustain schools' implementation of active classroom breaks

Dr Adam Shoesmith[1,2,3,4], A/Prof Nicole Nathan[1,2,3,4], Dr Alix Hall[1,2,3,4], Mr Edward Riley-Gibson[1,2,3,4], Mr William Pascoe[1,2,3,4], Prof Luke Wolfenden[1,2,3,4]
[1]University Of Newcastle, Callaghan, Australia, [2]Hunter New England Population Health, Wallsend, Australia, [3]National Centre of Implementation Science, Callaghan, Australia, [4]Hunter Medical Research Institute, New Lambton Heights, Australia

3D - Research insights: Indicating policy change, Hamersley, September 18, 2024, 11:00 AM - 12:30 PM

Context: Less than 20 per cent of evidence-based chronic disease prevention interventions are sustained beyond the withdrawal of initial support, leading to a waste of financial and resource investment in initial intervention delivery, and loss of community trust in program benefit. If we are to realise the long-term public health benefits of school physical activity interventions, ensuring their sustainment is essential. However, the continued delivery of such interventions post withdrawal of active support is a considerable challenge. To ensure intervention sustainment, we must gain an understanding of the factors influencing their ongoing delivery to develop strategies that address priority barriers. It is also crucial to ensure these strategies are theoretically-informed based on available evidence, and co-designed, with input obtained from a range of stakeholders familiar with the target setting and program development and delivery to increase the chance of successful sustainment.

Aim, methods and analysis/research findings: In consultation with content experts in implementation science, and health and education policy makers and practitioners across four Local Health Districts in New South Wales, we co-designed a multi-strategy intervention to sustain schools' delivery of classroom physical activity breaks, using the following steps:

1. Identification of sustainment determinants via: i) systematic reviews; ii) surveys with 240 classroom teachers; and iii) interviews with school staff.
2. Identification of potential sustainment strategies: barriers were organised according to the Integrated Sustainability Framework. Potential sustainment strategies were identified through surveys with 200 teachers. Theoretical mapping was used to link possible strategies to key barriers.
3. Strategies were reviewed and refined by key stakeholders and partners to ensure their feasibility and acceptability. Final strategies were described according to a sustainment-explicit glossary.
4. Strategy delivery was operationalised using existing implementation planning tools.

Results/outcomes: Key barriers to program sustainment were lack of organisational leadership and support, organisational readiness and resources, staff turnover, perceived policy alignment and workplace socio-cultural factors. Strategies perceived most useful by teachers to support sustainment were the provision of physical activity equipment packs (85%), a handover package to upskill new staff (78%), and delivery of professional learning modules (78%). Following theoretical mapping, a multi-component intervention was developed, including: (i) centralized support; (ii) reminders; (iii) principal mandates; (iv) sharing local knowledge; (v) building coalitions to share resources; (vi) distributing educational materials; and (vii) involving end-users.

Future actions: This will be one of the first studies to test the effectiveness of a co-designed multi-component sustainability intervention to support sustainment of a school physical activity program, creating seminal evidence for policymakers and practitioners to sustain the delivery of school preventive health programs.

Spacing babies: Determinants of short interpregnancy intervals in high-income countries

Dr Jennifer Dunne[1], Associate Professor Gizachew Tessema, Dr Sylvester D. Nyadanu, Dr Aditi Roy, Professor Gavin Pereira
[1]Curtin University, , Australia

3D - Research insights: Indicating policy change, Hamersley, September 18, 2024, 11:00 AM - 12:30 PM

Interpregnancy interval (IPI) is defined as the time between birth and commencement of the next pregnancy. Short IPI (<6-18 months) is a highly modifiable risk factor for adverse maternal, perinatal, and child health outcomes. Maternal health care is a high volume and a high-cost health service; however relatively little research has been undertaken to determine the factors that influence IPIs in high-income countries. Using a socioecological framework, this study comprehensively and systematically synthesised individual, relationship, community, and societal factors that influenced IPIs in high-income countries.

A systematic search was undertaken in CINAHL Plus, Ovid/EMBASE, Ovid/MEDLINE, Ovid/PsycINFO, ProQuest, PubMed, Scopus, Web of Science, and Google Scholar for articles published in English from January 1st 1990 to October 17th 2023. Studies were included if they reported an effect estimate for at least one determinant of birth spacing. The socioecological model was used as a guiding framework to systematically examine multilevel risk and protective factors of IPIs.

Of the 264 unique articles identified for full text review, 55 met the inclusion criteria for the final systematic review. Four levels of risk and protective factors related to short IPI were identified (individual, relationship, community, societal). The majority of the included studies reported influencing factors at the individual level (n=45), with maternal age, ethnicity, education, contraception use, and parity deemed risk factors. At the relationship level, peer influence and familial characteristics were risk factors of short IPIs. By contract, access to health care services were a protective factor for short IPIs at the community level, with social insurance provision at the societal level the most influential factor on short IPIs.

In Australia, the Royal Australian College of General Practitioners recommend a 6-week postnatal general practitioner review. However, there are no current national guidance on when, how or by whom postnatal contraceptive counselling should be provided; nor is there a national guidelines or recommendations on optimum interpregnancy intervals. The multi-dimensional factors that influence short IPIs identified in this study are crucial to providing an evidence-base to support the development of prenatal and postnatal programs that counsel women and families on optimum pregnancy spacing.

Piloting an Experiential Planetary Health Learning Program for Young African Australians

Ms Radhia Abdirahman[1]
[1]Fulbright Australia, , , [2]Wattle Fellowship, University of Melbourne, ,

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

Planetary Health is a social, transdisciplinary movement that examines and understands the human impacts on Earth's natural systems, human health, and, ultimately, all life on Earth. A pilot program providing experiential learning opportunities for young African Australians was designed to engage an underrepresented demographic in this movement. The pilot program offers the opportunity to explore Planetary Health meaningfully in a localised context. Initial activities included community outreach to identify interested participants and tailor the program to their needs. These consultations resulted in a series of participatory workshops addressing various elements of Planetary Health based on the Planetary Health Education Framework; topics covered include sustainable food systems, biodiversity, and the relationship between climate change and mental health. Participants' experiences were documented through model development and student sense-making sessions. The lessons learned, developed models, and proposed next steps will be discussed to facilitate ongoing engagement and policy development with this marginalised group.

Will we finally see action on toxic industrially-produced trans fats in Australia?

Mr Damian Maganja[1]
[1]The George Institute For Global Health, Sydney, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

What is the problem/issue that requires public health action?

Industrially-produced trans-fatty acids (iTFAs) added to foods have significant and inequitable health impacts in Australia. After years of inaction, Australian and New Zealand governments have recently consulted stakeholders on options to address iTFAs, though a lack of data was noted as a limitation. We aimed to assess the known and potential presence of iTFAs in Australian supermarkets, and will provide an overview of joint advocacy efforts to support effective, government-led action on iTFAs.

What do we know or have we learned to address this problem/issue, and how has this finding been derived?

Using the Australian FoodSwitch database, we assessed ingredients lists and nutrition information panels to identify potential and voluntarily declared iTFA presence and content in packaged supermarket products. Our initial analysis of 2022 data found that one in seven (14.4%) products definitely or potentially contained iTFAs, and products that quantified TFA content on-pack often reported excessive levels. A more complete investigation was hindered by deficiencies in labelling regulations that mean this harmful content need not necessarily be disclosed. What is not known to, or hidden from, consumers and regulators is cause for concern.

How has this been used in practice?

To highlight these findings and other relevant domestic and international research, we developed shared, evidence-based messages to raise awareness amongst the broader public health and consumer community and encourage responses to a government consultation paper. A number of health and consumer groups lodged submissions using our shared material, in alignment with our identified preferred policy options, following an effective engagement campaign.

What actions should we take in the future to address the problem/issue?

Feasible, cost-effective options to eliminate iTFAs in the Australian food supply are available. Coordinated and determined responses from a wide range of trusted groups working in the public interest provide a strong platform for government action. Ongoing monitoring and advocacy will be required to ensure regulatory options that provide optimal health benefits are implemented by governments despite food industry resistance.

157

Using holistic Relationships and Sexuality Education to tackle complex health issues

Ms Sharelle Tulloh[1], Ms Jordina Quain[1]
[1]WA Department of Health, Perth, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

What is the problem/issue that requires public health action?
In recent years, complex health and social challenges relating to relationships and sexuality education (RSE) topics have become common in public conversation. From statistics regarding alarmingly high rates of violence against women, the newly mandated consent curriculum, LGBTIAQ+ rights, through to the Voice referendum. Young people (YP) today are the most socially aware generation, yet our educational contexts have not kept up to support them. RSE can play a central role to fill this gap as it aims to prepare YP to live safe, productive and fulfilling lives in a world where sexually transmissible infections, unintended pregnancies, sexually explicit material, gender inequality and unwanted sexual experiences pose serious risks to their well-being.

What do we know or have we learned to address this problem/issue, and how has this finding been derived?
For over twenty years, the Sexual Health and Blood-borne Virus Program (SHBBVP) at WA Department of Health (DoH) has been implementing a holistic approach to RSE. This is achieved through funding RSE related contracts, initiatives and resources aimed at improving the knowledge, awareness and behaviours of YP, parents and educators. WAs approach is informed by the International Technical Guidance on Sexuality Education (UNESCO), and Health Promoting Schools Framework (WHO) which ensures a holistic, inclusive and impactful approach.

How has this been used in practice?
The holistic RSE approach has involved supporting YP, parents and teachers through a range of innovative and dynamic strategies. These include the creation of physical and digital resources, teacher training programs, grant initiatives and the funding of clinical and education service providers. Beyond this, key stakeholders in RSE across government and non-government sectors have been brought together to create the WA RSE Advisory Group which supports the strategic direction and collaboration of RSE in the state.

What actions should we take in the future to address the problem/issue?
While there is still a plethora of opportunity to expand and develop RSE in WA, the holistic approach used to tackle complex health and social challenges relevant to YP in WA can act as an exemplar implementation strategy.

Improving access to healthcare in the path to HIV elimination in WA

Mr Byron Minas[1], Caitlin Wilshin[1], Ines Bruss[2], Sarah Ringrose[2], Connie Irving[2]
[1]Surveillance and Disease Control Program, Communicable Disease Control Directorate, Department of Health WA, Perth, Australia, [2]Integrated Case Management Program, Communicable Disease Control Directorate, Department of Health WA, Perth, Australia

5C - Population health and equity, Golden Ballroom South, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim

Between 2014 and 2023 the number of HIV notifications in WA decreased by 38% to 68 cases. As overall cases declined, the number of cases diagnosed with late-stage HIV infection remained stable and in 2023 a higher proportion of cases were diagnosed with late-stage infection (43%, n=29), compared to 2014 (27%, n=29). Cases diagnosed with late-stage infection are often unaware of their risk of infection and/or experience barriers accessing healthcare and testing services, often facing complex psychosocial circumstances. The Department of Health WA Integrated Case Management Program (ICMP) provides support to people living with HIV (PLHIV) who face these barriers, helping them connect to HIV care and prevent further transmission.

Methods and analysis

The proportion of ICMP clients in 2021 and 2022 who were linked to care and achieved viral suppression (viral load count < 200 copies/ml) following referral to the program was analysed. A statewide estimate on the proportion of PLHIV on treatment who were virally suppressed in 2022 was also calculated as an indicator of access to HIV treatment in WA.

Translational outcomes

In 2021 and 2022, there were 24 referrals to the ICMP to support PLHIV who had disengaged from specialist care. Of those referrals, 63% (n=15) commenced treatment within two months of referral, 54% (n=13) were virally suppressed within three months and 71% (n=17) were virally suppressed within six months. In 2022 an estimated 98% of PLHIV on treatment in WA had achieved viral suppression.

Future actions

The ICMP provides a holistic service to PLHIV with complex needs, including counselling, education, linkage to treatment, advocacy and referrals to relevant agencies. By connecting PLHIV with complex needs to treatment and support services, the ICMP has been a key factor in achieving high levels of HIV viral suppression in WA and will play a pivotal role in the path to the virtual elimination of HIV in WA.

Preventive health disparities among people experiencing homelessness: gaps, barriers and opportunities

Dr Jocelyn Tan[1], Dr Matthew Tuson[1], Prof Lisa Wood[1]
[1]Institute for Health Research, University Of Notre Dame Australia, Perth, Australia

1C - Social Determinants of Health: the challenge, Golden Ballroom South, September 17, 2024, 1:30 PM - 3:00 PM

What is the issue that requires public health action?

People who are homeless experience enormous health disparities, including a three-decade life expectancy gap and a high prevalence of chronic disease. Conventional public health campaigns rarely reach this population, who encounter barriers to healthcare access and healthy behaviours and who are rarely recognised as a priority group due to largely being invisible in general population health data.

What have we learned to address this issue, and how has this finding been derived?

Using rich longitudinal health data for 1,482 patients of a specialist homelessness primary care practice, we examined the prevalence and risk factors for preventable chronic conditions and barriers and enablers to health promotion salience and preventive health. Factors examined included tobacco use, blood pressure, diabetes assessment and cancer screening.

The prevalence of chronic disease risk factors and conditions is high, and many barriers to preventive healthcare access exist. Daily survival can take precedence, but many patients were interested and engaged in improving their health. Primary health care providers with established trust can be a valuable conduit for health promotion.

How has this been used in practice?

This research involved collaboration with a large provider of primary care services to people experiencing homelessness, with a shared commitment to increasing preventive health access and support for this population. Implications for public health programs are being shared and an advocacy strategy has been developed promoting recognition of people experiencing homelessness as a priority group in key national and state health strategies.

What actions should we take in the future?

Trauma, adversity and social exclusion contribute to the high prevalence of preventable disease in homeless populations and other vulnerable groups. Mainstream public health interventions should recognise this and be trauma-informed, and tailored strategies should be developed to reduce the preventable life expectancy gap.

How in-store price and product promotions influence supermarket purchasing of unhealthy products?

Ms Angela Gazey[1], Ms Cara Donnelly[1], Professor Lisa Wood[1]
[1]The University of Notre Dame Australia, Fremantle, Australia

3C - Evidence, strategy, and creativity to promote behaviors, policies, and practices, Golden Ballroom South, September 18, 2024, 11:00 AM - 12:30 PM

What is the issue that requires public health action?
The need to act on the environmental and broader commercial determinants of obesity and unhealthy eating is widely recognised. Product and price promotions in supermarkets are pervasive, and are disproportionately used to promote unhealthy food and drink products. This has implications for health equity, with lower income consumers more sensitive to price promotions. Our research aimed to investigate in 'real-time' during supermarket shopping, people's exposure to such promotions, and how this influenced consumer intentions, motivations, and purchasing behaviour.

What have we learned to address this issue, and how has this finding been derived?
This research utilised a novel accompanied shop method as a way of gathering insitu insights about price promotion exposure in supermarkets and how this influences purchasing. Research participants (n=21) were accompanied while they did a regular supermarket shop, and asked to describe factors influencing their purchasing choices using a 'think aloud' approach. Key themes that emerged from the qualitative data analysis related to unplanned purchasing in response to 'specials'; the pervasiveness of price promotions and unhealthy product displays throughout supermarkets, and the impact of cost-of-living pressures on household shopping and eating.

How has this been used in practice?
This recently completed research adds timely weight to public health concerns about supermarkets as an obesogenic environment, and how the current promotion environment in major supermarkets influences consumers' intended and actual purchases. Research findings have already been used in an evidence brief developed by Cancer Council WA, and will be used in other advocacy.

What actions should we take to address the issue?
The disproportionate distribution of product and price promotions on unhealthy food and drink products and clear influence of these promotions on consumers' purchasing decisions supports the need for changes to the regulatory environment.

How often do apartment residents purchase meals out of the home?

Mrs Joelie Mandzufas[1,2,3], A/Prof Sarah Foster[4], A/Prof Siobhan Hickling[1], A/Prof Kevin Murray[1], Prof Gina Trapp[2,3,5]
[1]School of Population and Global Health, The University of Western Australia, Crawley, Australia, [2]Telethon Kids Institute, Nedlands, Australia, [3]Nutrition and Health Innovation Research Institute, School of Medical and Health Sciences, Edith Cowan University, Joondalup, Australia, [4]Centre for Urban Research, School of Global Urban and Social Studies, RMIT University, Melbourne, Australia, [5]School of Medicine, The University of Western Australia, Crawley, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

Eating meals prepared out of the home is directly associated with lower diet quality and has implications for diet-related chronic disease. Although we expect that apartment living will become more prevalent as the Australian population grows, there is currently limited evidence of the meal purchasing behaviours of apartment residents. This study investigated the frequency of meal purchases by residents of houses and apartments, examining whether frequency differs by apartment block height.

This study utilised wave 21 of the Household, Income and Labour Dynamics in Australia (HILDA) Survey to compare the meal purchasing practices of residents of houses and apartments. The frequency of purchasing a meal (breakfast, lunch, dinner, and any meal) was compared for residents of apartments vs houses, and for apartment residents living in blocks of different heights (low: less than four storeys, medium: four to nine storeys, and high rise (ten or more storeys). Unadjusted preliminary analyses showed that apartment residents purchased meals significantly more often than house residents (mean 2.66 times weekly, SD = 1.08 vs mean 2.13, SD = 2.32, $p<0.001$). Residents of apartments in high-rise blocks made significantly more meal purchases weekly than those in medium-rise and low-rise blocks (3.67 times, SD = 3.17; vs 2.98, SD = 2.61; vs 2.45, SD = 2.51, $p< 0.001$). Similar results were evident for each meal purchase occasion (breakfast, lunch, dinner).

The finding that apartment residents, particularly those in taller apartment blocks, purchase more meals out than house residents, has potential health implications for our population as higher density living becomes more prevalent.

These findings will inform targeted interventions to increase residents' cooking frequency, and advocacy for policy change to ensure healthy food is readily available in areas of high residential density.

Characterising demographic and spatiotemporal patterns of self-harm ambulance presentations in Queensland, Australia.

Ms Naomi Beard[1], Mr Michael McGrath[1,2], Dr Emma Bosely[3,4], Dr Verena Pritchard[3,5], Professor Dan Lubman[1,6], Dr Rowan Ogeil[1,6]
[1]National Addiction and Mental Health Surveillance Unit, Turning Point, Richmond, Australia, [2]Discipline of Psychiatry and Mental Health, Faculty of Medicine and Health, , Sydney, Australia, [3]Queensland Ambulance Service, Brisbane, Australia, [4]School of Clinical Sciences, Queensland University of Technology, Brisbane, Australia, [5]School of Psychology and Counselling, Queensland University of Technology, Brisbane, Australia, [6]Monash Addiction Research Centre & Eastern Health Clinical School, Monash University, Box Hill, Australia

5C - Population health and equity, Golden Ballroom South, September 19, 2024, 1:15 PM - 2:45 PM

Background: Over 3,000 people die by suicide in Australia each year, and suicide is the leading cause of death in Australians aged 15-to-24 years. Hospitalisations related to intentional self-harm are estimated to be 10 times higher than the number of suicide deaths in Australia. Despite the burden placed on the health system, limited pre-hospital population datasets are available to map and track suicide-related harms. This study aimed to characterise demographic and spatiotemporal patterns of suicide and self-harm related (SSH) ambulance presentations in Queensland, Australia.
Design and Methods: Data from the Queensland arm of the National Ambulance Surveillance System (NASS), a unique monitoring system for SSH, mental health and alcohol and other drugs (AOD), were used to investigate demographic and spatiotemporal patterns in SSH ambulance presentations between January 2021 and December 2022. Descriptive statistics were used to present demographic information on ambulance presentations related to suicide deaths, suicide attempts, suicidal ideation, and self-injury. Time and date co-variates and remoteness categories were used to investigate spatiotemporal patterns of SSH presentations. Co-reported AOD, and mental health symptomology were measured alongside other social stressors.
Key Findings: There were 67,478 ambulance attendances involving SSH in 2021 (n=34,516) and 2022 (n=32,962) in Queensland, Australia. SSH attendances occurred in the highest proportion in individuals aged 10-to-24 and 25-to-44 years. Family problems were reported in 32% of SSH attendances. Friday and Sunday mornings (6am and 10am) reported the highest number of suicide death-related attendances, compared with Monday and Sunday evenings (4pm and 8pm) which reported the highest number of self-harm behaviours related attendances. Pharmaceutical drugs were co-reported in 59% of suicide attempt-related attendances.
Discussion and Conclusions: Findings from this study suggest younger Queenslanders are experiencing the highest burden of SSH-related harms resulting in an ambulance attendance. The role pharmaceutical drugs play in suicide attempt-related attendances is notable. State and Federal government approaches to SSH reduction and prevention should consider the raft of social, political, geographic, and economic factors impacting young people’s mental health. Ambulance attendance data is a valuable resource that could be harnessed for ongoing monitoring of SSH outcomes across Australia.

The role of wastewater surveillance and communicable diseases: Western Australia’s experience

Dr Jelena Maticevic[1], Dr Alex Shivarev[1], Miss Katherine Lim[1], Ms Nevada Pingault[1], Ms Carolien Giele[1], Mr Jake Gazeley[3], Mr Avram Levy[3], Ms Sandra Sjollema[3], Dr Benjamin Scalley[5], Mr Cameron Gordon[4], Mr Richard Theobald[2], Dr Meredith Hodge[3], Dr David Speers[3], Dr Paul Armstrong[1]
[1]Communicable Disease Control, WA Dept Of Health, East Perth, Australia, [2]Environmental Health Directorate, WA Department of Health, East Perth, Australia, [3]PathWest, Nedlands, Australia, [4]Water Corporation, East Perth, Australia, [5]Boorloo (Perth) Public Health Unit, Perth, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Wastewater surveillance is an efficient and cost-effective population based surveillance tool. SARS-CoV-2 wastewater surveillance programs were employed throughout Australia during the COVID-19 pandemic, resulting in the development of innovative sampling and analytical methods, and informing public health responses. Polio wastewater surveillance is being undertaken in limited Australian jurisdictions, either State-led or on behalf of a World Health Organisation surveillance program. Globally, wastewater surveillance methods are being used or developed for a range of other diseases including for respiratory and gastrointestinal viruses, high impact pathogens including measles and antimicrobial resistance (AMR), and emerging diseases such as avian influenza. These methods complement traditional surveillance and facilitate population-level surveillance independent of individual health seeking behaviours, access to healthcare and testing practices, and have a role in pandemic preparedness and early detection.

Western Australia (WA) adopted qualitative SARS-CoV-2 wastewater surveillance in late 2020, moving to quantitative wastewater surveillance for COVID-19 in 2022, and adding influenza virus and respiratory syncytial virus (RSV) in mid-2023. Samples are collected twice weekly from three major Perth metropolitan wastewater treatment plants (WWTPs) and processed by PathWest. Genome sequencing of SARS-CoV-2 to understand emerging variants is also undertaken. WA also takes part in the national polio wastewater surveillance program, collected monthly on a rotational basis from the same three WWTPs.

Correlation analysis of SARS-CoV-2, influenza and RSV between wastewater concentrations and clinical cases has identified statistically significant correlation. Quantitative and sequencing results for SARS-CoV-2 are made publicly available, and used by public health, hospital clinicians and high-risk settings such as residential aged care to inform public health measures. Evaluation of the impact of RSV immunisation on wastewater surveillance is a focus of the WA wastewater surveillance program in 2024. Additional research and development work is being undertaken to understand the role of wastewater surveillance for other communicable diseases, including measles, monkeypox and flaviviruses.

There is potential for widespread adoption of wastewater surveillance in Australia building on global findings and lessons learnt to date to better understand the prevalence of communicable diseases and emerging pathogens. Standardised testing and reporting across jurisdictions would better inform public health practices and policy.

Strengthening Aboriginal and Torres Strait Islander Kidney Care: The COMPASS Project

Kelli Owen[1], David Croker[2], Peter Henwood[3], Lachlan Ross[4], Neil Wilkshire[5], Cedrina Algy[6], Rhanee Lester[7], Dr Kim O'Donnell[8], Professor Janet Kelly[9], Ms Isabelle Haklar[10], Katie Cundale[11], Heather Hall[12], Michelle Misener[13], Kate Tyrell[14], Dr Stephen McDonald[15], Dr Shilpanjali Jesudason[16], Dr Samantha Bateman[17]

[1]SAHMRI, Adelaide, Australia, [2]Panuku, Darwin, Australia, [3]Panuku, Darwin, Australia, [4]Panuku, Darwin, Australia, [5]Panuku, Darwin, Australia, [6]Panuku, Darwin, Australia, [7]University of Adelaide, Adelaide, Australia, [8]University of Adelaide, Flinders University, Adelaide, Australia, [9]University of Adelaide, Adelaide, Australia, [10]SAHMRI, Adelaide, Australia, [11]SAHMRI, Adelaide, Australia, [12]Panuku, Darwin, Australia, [13]Panuku, Darwin, Australia, [14]CNARTS, Adelaide, Australia, [15]University of Adelaide, CNARTS, Adelaide, Australia, [16]CNARTS, Adelaide, Australia, [17]University of Adelaide, CNARTS, Adelaide, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Kidney disease disproportionately impacts Aboriginal and Torres Strait Islander peoples in Australia, yet treatment access and outcomes are not optimal due to the complex and culturally unsafe pathway to transplantation. Patient Navigator programs in South Australia and the Northern Territory are accepted by Community as a culturally safe way to improve access to the transplant waitlist, as patient experts can help guide and advocate for new patients from lived experience of dialysis and transplant. However, these programs currently operate independently across two jurisdictions that share one transplant unit. Existing Patient Navigators have identified that the coordination of programs is required to ensure sustainability and continuity of care from renal sites through to the transplant unit.

Our project (COMPASS) is led by Aboriginal and Torres Strait Islander researchers, and more importantly, Aboriginal and Torres Strait Islander Patient Navigators. Through our research, we aim to understand how coordinating Patient Navigator programs across four sites (Darwin, Alice Springs, Port Augusta and Adelaide) can help facilitate better care and outcomes for patients with renal failure.

By implementing communication channels and data-sharing systems, we are enhancing care coordination for patients travelling between sites. This approach has allowed Patient Navigators to identify and implement practical real-time solutions to issues, resulting in effective, Aboriginal-led change to patient journeys. Alongside the day-to-day implementation of this model, decolonising research methodologies such as Journey Mapping and Yarning Circles are being utilised to understand how Patient Navigators impact patient care and wellbeing from a patient perspective. This research also draws upon Patient Navigator and health professional/executive insights to determine how these positions can be best integrated and supported within health services.

The learnings from this project will inform recommendations around the implementation of Patient Navigator programs across different healthcare services, and drive advocacy for ongoing support and funding of these programs.

The role of cross-government partnerships in addressing health equity in Fairfield City.

Ms Yathugiri Logathassan[1]
[1]Fairfield City Council, Wakeley, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

The Fairfield Health Partnership (FHP) and the Fairfield City Health Alliance (FCHA) are inter-government collaborations aimed at improving the health and wellbeing in Fairfield City, NSW.

Located in south-west Sydney, Fairfield City is a vibrant community of more than 211,000 people from over 108 countries. It is the most disadvantaged Local Government Areas in NSW and one of the most disadvantaged in Australia. Fairfield City is a Settlement City - 56% of residents were born overseas and 70% speak a language other than English at home. Several social determinants lead to poorer community health outcomes. Fairfield City records higher rates of unemployment and lower levels of tertiary-level education, household income and people with private health insurance than greater NSW.

Established in 1995, the FHP is a bi-level government partnership between Fairfield City Council (FCC) and the South Western Sydney Local Health District (SWSLHD) that identifies and addresses the evolving health needs of Fairfield City. The FHP has influenced both partners in prioritising community wellbeing in organisational planning and advocacy. Key achievements of the FHP include integration of health into Council’s core strategies, advocacy to upgrade health infrastructure such as Fairfield Hospital, successful tobacco-control initiatives, place-based response to COVID-19, embedding health principles in urban planning, free community-centered physical activity programs and the development of healthy food policies.

The work of the FHP is complimented by the FCHA, a tri-level partnership between FCC, SWSLHD and South Western Sydney Primary Health Network. Established in 2018, the FCHA focuses on improving access to health services. Key objectives include improving health literacy, strengthening local GP services and implementing preventative strategies to address gambling harm.

These partnerships are innovative examples of how effective cross-sector collaboration can have meaningful health and social impacts for community. These collaborations leads to healthier people, healthier places and strengthened collaboration between Council and Health partners.

Scoping and development of environmental health and climate change indicators

Dr Vanessa Prescott, Ms Micaella Watson[1], Mrs Georgie Amoyal, Dr Imogen Halstead
[1]Australian Insitute Of Health And Welfare, Canberra, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

Increasing pressures from climate change and our surrounding environment are having a negative impact on human health. Yet Australia lacks a set of nationally representative environmental health indicators as identified by the National Preventive Health Strategy 2020–2030 and National Health and Climate Strategy.

Climate change and environmental health indicators play an important role in monitoring the effects of current and emerging environmental hazards on health. Understanding the extent to which the environment affects health, and monitoring changes over time, can inform strategies, policies and indicator development.

To address this gap, the AIHW has developed a framework of climate change and environmental health indicators informed by extensive literature reviews, sub-national and international examples of indicator frameworks. Topics important to monitor were informed by the Driving force, Pressure, State, Exposure, Effect, Action (DPSEEA) framework, selection and data sources criteria, expert stakeholder consultation and evidence of causal association between exposure and health effects based on burden of disease methodology and available health data.

Thirty reportable indicators specific to Australia were identified and arranged within 8 broad domains: air quality (indoor/outdoor), water quality, UV and sun radiation, climate and extreme weather, housing, built environment, food environment and waste. Indicator profile specifications were developed to provide information on aspects such as rationale, measures, data sources/frequency and disaggregations.

A further 24 indicators with known data gaps and requiring development were identified. Whilst they are relevant, suitable and may be necessary for inclusion, issues such as data availability and evidence, prevent this. It is intended that these indicators would become reportable, if data gaps are filled, or development occurs.

It is envisaged that reportable indicators will inform baseline reporting on climate change and the environment’s impact on health in Australia. Ongoing surveillance and monitoring will be important to assess health impacts now and into the future.

Progress from monitoring the National Preventive Health Strategy 2021-2030

Dr Vanessa Prescott[1], Ms Dian Xu[1], Mr Paul Montgomery[1]
[1]Australian Institute of Health and Welfare, Bruce, Australia

2B - Innovations and Challenges in Health Communication and Policy, Golden Ballroom Centre, September 18, 2024, 9:00 AM - 10:30 AM

Preventive health measures are key to achieving a healthier Australia. Even though Australians have one of the longest life expectancies in the world, many are living with and suffering from chronic illness.

The vision of the National Preventive Health Strategy 2021-2030 (NPHS) is to improve the health and wellbeing of all Australians through prevention. It identifies 4 Aims and 7 Focus Areas under which are key measurable targets for 2030. This includes 2 key targets within the National Obesity Strategy 2022-2032 to reverse the prevalence of obesity in adults, and reduce overweight/obesity in children and adolescents.

This project aims to monitor all key targets from both strategies by building a monitoring dashboard. It explores changes in risk factors and health outcomes in the wider Australian population, with a focus on time trends and priority populations such as First Nations people, rural and remote areas, and socioeconomic areas.

Nationally representative data from a range of sources including the Australian Bureau of Statistic's National Health Surveys, the Australian Institute of Health and Welfare, and the Department of Health and Aged Care were analysed, collated and visualised. The latest available data was compared against the baseline data for each target. Compared to baseline: daily smoking decreased by 3.2%; Australians ≥15 years undertaking no physical activity has decreased; adults living with obesity remain steady, and the proportion eating enough fruit and vegetables has decreased.

This information has been translated to an interactive dashboard providing a comprehensive visualisation and information platform for key stakeholders to review changes in the Aims and Focus Areas of the strategies.

Ongoing collection and analysis of data, as and when it becomes available, is important to ensure comprehensive and timely updates to a monitoring platform for guiding the implementation of public initiatives.

Stronger Together: Innovative strategies to engage and empower communities in cancer screening

Ms Angelina Belluomo[1]
[1]Cancer Council NSW, Woolloomooloo, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

The 2021 census found that 29% of Australia's population were born overseas and 22% of households speak a language other than English. Compared to the general Australian population, people from Culturally and Linguistically Diverse (CALD) communities have lower participation rates in the bowel, breast and cervical cancer screening programs than the national average. Addressing this disparity requires targeted interventions tailored to the unique barriers faced by CALD communities.

In 2022, Cancer Council NSW (CCNSW) commissioned an evidence check into screening interventions in Australia and comparable countries that addressed barriers for participation among CALD groups. The review highlighted co-design as critical approach to engage with CALD communities. Co-design fosters trust, collaboration, and meaningful engagement, allowing for tailored interventions to align with cultural contexts, enhancing acceptance and effectiveness of messaging.

CCNSW trained six community facilitators to deliver cervical, bowel and breast cancer screening workshops in Mandarin, Cantonese, Arabic and Vietnamese. These workshops educated CALD communities on the importance of cancer screening and provided support to access these services. The targeted communities represented the largest CALD groups in Australia and the workshops were delivered across Western Sydney where significant populations of the target communities reside.

Each workshop was co-designed with peak community organisations and champions. Facilitators participated in capacity building training seminars led by CCNSW, enhancing their screening knowledge and facilitation skills. The workshops reached participants in a culturally safe and appropriate way, and pre and post evaluation demonstrated significant improvements in understanding of the national screening programs, the benefits of screening, eligibility criteria and how to access these programs.

Looking to the future, it's clear that co-design will always be a critical element in successfully connecting with CALD communities. CCNSW will continue to use findings from our evidence check to trial new and innovative ways of community engagement to inform best practice.

Geography and time-specific health data for environmental analysis

Dr Vanessa Prescott[1], Ms Imogen Halstead[1], Dr David Wong[1]
[1]Australian Institute of Health and Welfare, Bruce, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

[Context and aim]

To inform Australia’s response to climate change and increasingly frequent, extreme environmental events, there is a pressing need to better understand the impact of environmental factors on human health and health service use. The aim of this project was to provide a publicly available, national data set which allows researchers and other practitioners (e.g. people working in the areas of health service planning, disaster resilience and response or public health policy) to gain insights into changes in health service use coincident with environmental events (particularly, bushfires).

[Methods and analysis/research findings]

The AIHW created and released up to 20 years of weekly data by small geographic area (Statistical Area 4 – SA4) for service use related to selected health conditions (respiratory, cardiovascular, mental health and other potentially bushfire-related health conditions). Health service use data in scope include:

- hospitalisations (2002–03 to 2021–22)
- hospital emergency department presentations (2014–15 to 2021–22)
- Medicare Benefits Schedule service claims (2002–03 to 2021–22)
- Pharmaceutical Benefits Scheme (PBS) and Repatriation Pharmaceutical Benefits Scheme (RPBS) prescriptions dispensed (2002–03 to 2021–22).

The published data set includes accompanying notes and data visualisations that allow users to explore the data.

[Translational outcomes]

These data are now available to researchers and other practitioners. It is envisaged that the data and visualisations could be combined with environmental data (e.g. air quality data; temperature data) to derive insights about the impact of environmental events on health service use. The data may also be useful in identifying particular periods and/or locations of interest for further, more detailed, analysis.

[Future actions]

Work is required to enhance the data with methods that, for example, highlight peaks and troughs in service use or includes data by population groups.

Glycaemic control in low- and middle-income countries: A meta-analysis

DR BODRUN NAHER SIDDIQUEA[1], Professor Dianna Magliano[1,2], Mr Mohammad Rocky Khan Chowdhury[1], Ms Hasina Akhter Chowdhury[1], Dr Afsana Afroz[3], Dr Sonali Shah[4], Dr Baki Billah[1]
[1]Department of Epidemiology and Preventive Medicine, School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia, [2]Department of Diabetes and Population Health, Baker Heart and Diabetes Institute, Melbourne, Australia, [3]Department of Biochemistry and Pharmacology, Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne , Melbourne, Australia, [4]Hudson Institute of Medical Research, Monash University , Melbourne, Australia

5C - Population health and equity, Golden Ballroom South, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim: The global burden of diabetes is increasing, particularly in low- and middle-income countries (LMICs). Literature shows poor glycaemic control among people with type 2 diabetes (T2DM) in most LMICs. Identifying the factors influencing glycaemic control in this region is crucial for developing effective interventions. This systematic review aimed to evaluate glycaemic control and explore how it relates to people with T2DM living in LMICs.
Methods and analysis: A systematic literature search was conducted in Medline, Embase, CINAHL, PsychINFO and Global health databases to identify articles assessing glycaemic control in LMICs published between 1 January 2001 and 15 April 2024. Information was systematically summarised descriptively following the Preferred Reporting Items for Systematic Reviews and Meta-analyses guidelines. Study quality was assessed using the modified Newcastle-Ottawa Scale. A random-effect model was used to obtain the pooled proportion of adequate glycaemic control (HbA1c <7%). Heterogeneity (I2) was tested, sensitivity analyses were performed, and publication bias was examined using Egger's regression test.
Translational outcomes: Among 12,985 records retrieved, 62 studies from 28 countries with 176,304 participants were included. The pooled proportion of adequate glycaemic control was 31% (95% CI: 27%-34%, p<0.001, I2 = 99.11%), with no publication bias (Egger's regression test, p=0.252). People in upper (31%, 95% CI: 26%-35%) and lower (31%, 95% CI: 26%-37%) middle-income countries had better control than low-income countries (25%, 95% CI: 20%-31%). Overall heterogeneity was high (>86%). Poor glycaemic control was associated with age, female gender, lower education, rural residence, obesity, longer diabetes duration, oral glucose-lowering medications and/insulin use, non-adherence to diet and medication, physical inactivity, and dyslipidaemia.
Future directions: Glycaemic control in LMICs is suboptimal, necessitating targeted interventions. Key strategies include nurse-led clinics, regular healthcare centres audits, and enhanced provider training. Improving patient education, access to affordable medications, and supportive policy changes can improve glycaemic control.

Sea-Level Rise and Mental Health among Coastal Communities in Asia-Pacific Region

Dr. Sajjad Kabir[1]
[1]Curtin University, Perth, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

Sea-level rise (SLR) poses a significant public health challenge, particularly in the Asia-Pacific region, by intensifying psychological distress among coastal populations. Our study targeted southwest Bangladesh, a region where environmental stressors such as salinity, erosion, and flooding are exacerbated by SLR. We began with a systematic review to establish the connection between SLR and mental health issues. The findings indicated that these environmental stressors significantly worsen mental health by depleting resources, thereby increasing distress, depression, anxiety, and stress. Subsequently, a cross-sectional quantitative study involving 1,200 residents from the region’s most vulnerable coastal areas revealed significantly higher levels of psychological distress compared to less affected areas. A follow-up study conducted eight months later, after the monsoon season, with a low attrition rate of 4.67%, showed an increase in psychological distress, confirming resource loss as a pivotal factor in deteriorating mental health. These findings are crucial for informing policy and clinical interventions within the Sendai Framework for Disaster Risk Reduction 2015-2030. They emphasize the need to integrate mental health support into disaster preparedness plans for communities at risk of SLR. Future strategies should focus on enhancing environmental resilience and expanding mental health resources to equip these communities to handle the psychological impacts of climate change. Our research advocates for sustained efforts to mitigate the mental health consequences of environmental challenges globally.

Does age influence men’s help-seeking preferences? Insights from a national Australian survey

Mr Robert Palmer[1], Professor Philayrath Phongsavan[1], Dr James Kite[1], Professor Ben Smith[1]
[1]Prevention Research Collaboration, Sydney School of Public Health, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia

5C - Population health and equity, Golden Ballroom South, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim: Australian men have poorer health outcomes, which are linked to lower rates of health service use. The National Men’s Health Strategy 2021–2030 highlights the need to better understand the factors influencing men’s use of health services. This study explores the help-seeking preferences, obstacles, and attitudes of Australian men.

Methods: A cross-sectional, nationally representative survey of 1,282 Australian men aged 18 years and older was conducted in March 2021 with a response rate of 91%. Participants responded to a validated questionnaire measuring their preferences for help-seeking related to physical and mental health, and psychological and practical barriers to help-seeking. Multivariate logistic regression analyses determined the adjusted association between age, help-seeking and psychosocial barriers.

Research findings: Men in younger age groups were less likely to seek professional help for both physical (18-29yrs, OR=0.28, 95% CI 0.17-0.49; 30-39yrs, OR=0.35, 95% CI 0.22-0.58) and mental health issues (18-29yrs, OR=0.28, 95% CI 0.16-0.46; 30-39yrs, OR=0.31, 95% CI 0.19-0.49) than men aged 70 and over. Younger men also experience significantly higher levels of psychosocial barriers and practical barriers to seeking help, with 32% of men aged 18-29 reporting three or more obstacles to healthcare engagement, compared to 9.3% of men over 70.

Translational outcomes and future actions: Age is a significant factor in men's health help-seeking preferences in Australia, with a substantial age gradient. These findings highlight the unique help-seeking profile of younger men. Younger Australian men are less likely to seek help proactively, and encounter more practical and psychosocial barriers than older men. The findings underscore the necessity for public health strategies to engage younger men effectively in proactive health management.

Cents and Sensibility: Tackling the Financial Burden of Cancer Care in Australia.

Kate Whittaker[1], Ms Drew Meehan[1], Dr Clare Lynex[1], Megan Varlow[1]
[1]Cancer Council Australia, Sydney, Australia

4D - Social and Environmental Determinants of Health, Golden Ballroom North, September 19, 2024, 11:00 AM - 12:30 PM

Context and Aim

Australia’s universal healthcare system should mean that no one is financially disadvantaged by having a chronic condition like cancer, although this is currently not the case. Financial toxicity is the negative patient-level impact of the financial costs of healthcare, which can lead to physical and psychological harm, altered decision making and ultimately sub-optimal health outcomes.

Cancer Council developed the Financial Cost of Cancer policy to address the impact of both direct and indirect financial costs of accessing adequate cancer care, as well as reducing the impact of changing financial circumstances experienced during cancer care such as reduced capacity to work, which may in turn affect the whole household. However, our findings are much broader than cancer care, with many people affected by chronic conditions facing the same barriers.

Methods and Analysis

Several literature reviews guided the development of this policy, and the priorities were refined following consultation with individuals and organisations with expertise in the financial costs of cancer, including people with a lived experience of cancer.

Four overarching priority areas emerged: 1) Ensuring informed financial consent; 2) Improving the experience of people with cancer who require income support; 3) Enhancing financial support for people living in regional and remote areas to access cancer treatment and care; 4) Increasing access to financial counsellors.

Translational Outcomes

A person’s financial situation should not hinder access to optimal cancer care in Australia. The financial cost of cancer policy provides clear priorities for ensuring that all people affected by cancer, regardless of the direct or indirect costs of treatment, can access the care that they need. The policy was developed in collaboration with several stakeholders ensuring that it is fit-for-purpose and adequately reflects the policy environment and context.

Future Actions

The Financial Cost of Cancer policy reflects the Australian cancer care environment and provides feasible and actionable policy solutions that would support more equitable cancer outcomes and support delivery of several of the goals and priorities of the Australian Cancer Plan.

Perinatal and childhood risk factors of adverse childhood developmental outcomes: Systematic review

Mr Kendalem Atalell
[1]Curtin University, Perth, Australia

1C - Social Determinants of Health: the challenge, Golden Ballroom South, September 17, 2024, 1:30 PM - 3:00 PM

Perinatal and childhood risk factors of adverse early childhood developmental outcomes: systematic review

Abstract
Adverse early childhood developmental outcomes have pervasive effects on children's physical, social, emotional, cognitive, and language development. This comprehensive synthesis informs health promotion and disease prevention strategies by systematically identifying perinatal and childhood risk factors contributing to adverse developmental outcomes.
Methods
A systematic search of EMBASE, Medline, Global Health, PsycINFO, CINAHL, and Web of Science Core Collection from 2000 to 2023 was conducted. Studies meeting Population, Exposure, Comparison, Outcome, and Studies (PECOCS) criteria were included: 1) Population: Children under eight years undergoing developmental assessments; 2) Exposure: Various perinatal and childhood risk factors; 3) Comparison: Children with minimal exposure to risk factors, 4) Outcome: Adverse early childhood developmental outcomes, 5) Study design: Observational studies including cohort, case-control, nested case-control, and cross-sectional studies.
Results
Out of 27,376 identified studies, 175 were analysed, representing over 80 countries, with a concentration in Australia, the US, Canada, and China. More than 43 assessment tools were utilised. Perinatal risk factors such as gestational age, birth weight, maternal age, maternal mental health issues, tobacco smoking, and maternal anaemia emerged as significant contributors to adverse developmental outcomes. Childhood-related factors, including chronic illness, hospitalisation, surgery exposure, infectious diseases, excessive screen time, physical inactivity, and inadequate sleep, were identified as risk factors across multiple developmental domains. Environmental influences such as indoor air pollution, proximity to major roads, and exposure to various chemicals also had significant impacts.
Interpretation
Multifaceted risk factors influence early childhood development. Understanding these interconnected factors is crucial for designing interventions to promote optimal development and mitigate adversities. Holistic approaches addressing these influences can ensure every child can thrive and reach their full potential.

Multimorbidity analysis provides insights for National Strategic Framework for Monitoring Chronic Conditions

Mr Tim Hourigan[1], Ms Tylie Bayliss[1], Mr Kevin Monahan[1]
[1]AIHW, Canberra, Australia

3D - Research insights: Indicating policy change, Hamersley, September 18, 2024, 11:00 AM - 12:30 PM

What is the problem/issue that requires public health action? [Context and aim]

Estimates of multimorbidity (having 2 or more selected long-term health conditions) typically differ due to condition inclusions and cohort criteria. Previous Australian Institute of Health and Welfare (AIHW) reporting of multimorbidity has focused on 10 chronic conditions, common among older Australians.

This study used self-reported Australian Bureau of Statistics (ABS) 2022 National Health Survey (NHS) data to investigate and report on multimorbidity by demographic and geographic variables. The report builds on previous multimorbidity reporting by expanding the range of chronic conditions to include conditions commonly diagnosed at younger ages.

What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]

Estimates are based on analysis of 72 long-term health conditions self-reported to the NHS, to provide a more robust estimate of multimorbidity across all ages. Prevalence estimates of multimorbidity were analysed for the 2022 reference period.
The prevalence of multimorbidity differs by age and sex. In 2022, the estimated prevalence of multimorbidity was:

- higher among females compared with males (38%, and 37%, respectively), affecting 9.7 million Australians (38%)
- higher among people aged 85 and over (79%) compared with those aged 0–14 (11%).

Routine monitoring of multimorbidity overtime is important to ensure disease prevention activities target priority populations.

How has this been used in practice? [Translational outcomes]

This research will inform the Department of Health and Aged Care review into the National Strategic Framework for Chronic Conditions. Whilst the framework has previously focused on disease-specific initiatives, findings from this analysis will support holistic management of multimorbidity in Australia.

What actions should we take in the future to address the problem/issue? [Future actions]

Broadening the scope of conditions included in multimorbidity reporting to encompass Australians of all ages will increase demographic and condition coverage and will serve as a foundation for monitoring the prevalence of multimorbidity and disease trajectory across different life stages.
Utilising the multi-morbid cohort identified in this study will enable the use of linked data to investigate the variation in treatment pathways and health service use across population groups.

Health and health literacy needs of older Cambodians in ethnic minority communities

Ms Ponnary Pors[1], Dr Chhordaphea Chhea[2], Associate Professor Elizabeth Hoban[3], Dr Melanie Hawkins[1], Distinguished Professor Richard Osborne[1]
[1]Centre for Global Health and Equity, Swinburne University of Technology, Hawthorn, Australia,
[2]National Center for Health Promotion, Cambodia's Ministry of Health, Phnom Penh, Cambodia,
[3]Faculty of Health, Deakin University, Burwood, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim

Most older Cambodians live in rural areas where healthcare resources are scarce. Because of this, concerns arise regarding this group’s health, particularly when they need to access, understand, and use information and services to make health-related decisions. Although data indicates an ageing population, there is limited research on older ethnic minority groups. This study sought to identify the health and health literacy needs of older people living in ethnic minority villages in Cambodia.

Methods

This qualitative research was conducted in two Muslim and two Indigenous communities in Cambodia between March 2023 and January 2024. Seventeen structured interviews and nine in-depth interviews were conducted with participants aged 60+ across the four sites. Data were analysed thematically to explore the participants’ needs in health care and health-related information.

Findings

All participants believed that access to public health services was limited or unavailable to older people. Despite having limited income, many (n=25) sought treatment from private health providers. More than half of the participants required their children and immediate family to assist them in receiving treatment due to the distance to health facilities, financial constraints, and language barriers. Only two participants felt they could manage their health and well-being. Moreover, it was observed that participants were vulnerable to the spread of misinformation. For all participants, health information shared among villagers with similar health conditions or experiences was their primary source of knowledge.

Conclusion

This study found that the Cambodian healthcare system responds poorly to the health needs of older people from ethnic minority backgrounds in rural areas. Findings also indicated that social support and local community health literacy are crucial within these populations. Therefore, a participatory approach to health literacy development is required to identify and respond to the distinct health needs of older ethnic minorities living in rural Cambodia.

Alcohol and cancer risk: mobilising national action to minimise harms from alcohol

Ms Amanda Mcatamney[1], Julia Stafford[2], Danica Keric[2], Alicia Machalias[1], Megan Varlow[1]
[1]Cancer Council Australia, Sydney, Australia, [2]Cancer Council Western Australia, Perth, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim

Alcohol is a carcinogen, with an estimated 5,800 cases of cancer in Australia due to alcohol use in 2020.1 Drinking even small amounts of alcohol increases the risk of developing seven types of cancer - mouth, throat, larynx, oesophagus, breast, liver and bowel.2,3

Methods and analysis

Cancer Council Australia recently updated our National Alcohol and Cancer prevention policy to present comprehensive, evidence-based recommendations and policy initiatives to support healthy communities and reduce the risk of alcohol-caused cancer among the Australian population. This was informed by literature reviews, engagement with key experts in alcohol control policy, and consensus building around priority actions to mobilise national action to reduce alcohol-caused cancer.

Translational outcomes

Alcohol industry representatives are known to utilise tactics adopted by the tobacco industry including casting doubt on legitimate science, lobbying, political donations, reputation management, and funding disinformation campaigns.4 Australians are concerned about these industry activities and are supportive of measures to limit policy influence of alcohol companies.5

Responsibility for alcohol policies is shared across all levels of government with current frameworks and strategies outlining evidence-informed policies, programs and other interventions to prevent and minimise harms from alcohol, including as a cause of cancer. We identified four overarching priority areas: 1) Restriction of alcohol advertising and promotion; 2) Alcohol pricing policy reform; 3) Building community understanding of the risks of alcohol use through evidence informed health warning labels and public education campaigns; and 4) Restricting the physical availability of alcohol through strengthened liquor laws.

Future actions

Alcohol policy changes have had an impact on cancer mortality in Australia6. Cancer Council is well placed to leverage current national strategic frameworks and mobilise the latest evidence-based recommendations to achieve national policy action to reduce the harms associated with alcohol use and improve long-term health outcomes among individuals, families and communities.

References

1 Rumgay, H et al. Global burden of cancer in 2020 attributable to alcohol consumption: a population-based study. The Lancet Oncology, Volume 22, Issue 8, 1071 - 1080

2 Anderson BO, et al. Health and cancer risks associated with low levels of alcohol consumption. The Lancet Public Health. 2023 Jan;8(1). doi:10.1016/s2468-2667(22)00317-6

3 Ellis, L., et.al. (2023). Estimating cancers attributable to physical inactivity in Australia. Journal of science and medicine in sport, S1440-2440(23)00514-5. Advance online publication. https://doi.org/10.1016/j.jsams.2023.12.002

4 Lacy-Nichols J, Christie S, Cullerton K. (2023). Lobbying by omission: what is known and unknown about harmful industry lobbyists in Australia. Health Promotion International, 38(5).

5 Alcohol Change Australia. 2023. Public Opinion on Alcohol in Australia: Knowledge, Attitudes and Support for Change. Available from: https://alcoholchangeaus.org.au/wp-content/uploads/2023/11/AlcoholChangeAustralia_Report_FINAL.pdf

6 Jiang, H., R. et al. Can public health policies on alcohol and tobacco reduce a cancer epidemic? Australia's experience. BMC Med 17, 213 (2019). https://doi.org/10.1186/s12916-019-1453-z

WA's comprehensive sexual health approach for young people in a complex world

Ms Sharelle Tulloh[1]
[1]WA Department of Health, Communicable Disease Control Directorate, Perth, Australia

5A - Cultural Competence in Healthcare and Public Health, Golden Ballroom North, September 19, 2024, 1:15 PM - 2:45 PM

What is the problem/issue that requires public health action?

In an information-rich world, sexual health is increasingly complex with critical analysis a key skill to determine what is real and accurate. Young people (YP) who are ‘digital natives’ often receive education and healthcare by ‘digital immigrants’. This poses challenges in understanding the landscape of intimate relationships for YP and how they navigate healthcare.

YP are disproportionately affected by sexually transmissible infections (STIs) and women of reproductive age are key in addressing congenital syphilis cases that can result in lifelong disability or death. Over the past 10 years, Australian diagnoses of gonorrhoea have doubled, syphilis have tripled, and chlamydia rates increased.[1]

What do we know or have we learned to address this problem/issue/and how has this finding been derived?

Condoms remain highly effective at preventing STIs and regular testing is crucial. Combatting stigma and discrimination and illustrating sexual health as part of general health and wellbeing is vital for YP to feel safe to talk to their partners and health professionals about their sexual behaviours and health needs.

Around 61% of year 10 – 12s are sexually active, yet only 13% agree that STI testing is common among their friends and only 39% knew where to get tested2. GPs were YP’s most trusted source of accurate sexual health information (78%) yet only 31% report they had spoken to a GP about sexual health. [2]
Disease-focused, fear-based initiatives of the past have left a devasting impact. Addressing raising STI rates requires a far more comprehensive approach that develops respectful relationships, health literacy and help-seeking skills that empower young people to have healthy, pleasurable sexually active lives.

How has this been used in practice?

The Western Australian Department of Health’s (DoH) comprehensive sexual health response uses a partnership approach with non-government and government organisations to implement prevention, education, integrated clinical care, workforce development, surveillance, research and evaluation initiatives across the state. This includes of a suite of websites (with free online testing, free condoms and ‘ask a question’ tools), hardcopy resources, campaigns, and training opportunities specifically aimed at YP.

What actions should we take in the future to address the problem/issue?

High-value sexual health requires continued investment in:
- comprehensive relationships and sexuality education
- youth friendly accessible services
- Medicare coverage

- innovative digital models for testing and care
- youth voice in public health initiatives
- policy and law reform
- collaborative approaches across sectors.

Supporting families when a baby dies- Applying a public health approach

Ms Noor Yousef[1], Dr Aditi Lohan[1], Dr Julie Dean[1,2], Ms Keren Ludski[3], Dr Siobhan Loughnan[2], Ms Rachel Ficinus[3], Associate Professor Fran Boyle[1,2]
[1]Institute for Social Science Research UQ, Brisbane, Australia, [2]Centre of Research Excellence in Stillbirth, Brisbane, Australia, [3]Red Nose, Melbourne, Australia

5D - Prioritising public health strategies in Australia, Hamersley, September 19, 2024, 1:15 PM - 2:45 PM

Context

Each year in Australia, more than 3,000 families experience stillbirth or newborn death and 100,000 experience miscarriage. The psychosocial consequences for families are profound with implications for the health system, economy, and society.

Access to the right support at the right time is vital to the wellbeing of bereaved families. A holistic public health approach to bereavement care is needed, involving shared responsibility between communities and health services, and providing universal, selective, and indicated support.

Despite the application of public health principles in bereavement research, implementation remains fragmented. Improving perinatal bereavement care requires a multilevel approach with cross-sector collaboration essential to building integrated support networks for bereaved families.

Aim

Our study uses a public health approach to examine the types of supports accessed and needed by bereaved families.

Methods

471 bereaved parents and family members completed an online survey, and 24 participated in a follow-up interview.

Research Findings

Fewer than half (41%) of survey respondents received the support they needed after their loss. Common barriers were not knowing where to find support (37%) and finding it hard to ask for support (37%). While family and friends were frequently accessed sources of support (73%), fewer found this support helpful (58%). Community-based bereavement support organisations were highly accessed (67%) and rated as helpful (85%), with peer support rated most highly by those who accessed it (91%).

Translational outcomes

By identifying gaps and opportunities, the findings shed light on approaches to strengthen the capacity of communities and health systems to meet parents' needs. This approach aligns to the Compassionate Communities model in palliative care, recognising the need to move beyond health care systems to more holistic approaches to effect meaningful change.

Future actions

Our findings underscore the importance of proactive care pathways, strengthening cross-sector partnerships, improving grief literacy across communities and ensuring universal sources of support for bereaved families.

Conversational Agents in Digital Health Interventions: Adapting for eHealth Literacy Levels

Mr Nick Kashyap[1,2,3], Dr Chris Lynch[1,2,3], Professor Brian Oldenburg[1,2,3]
[1]School of Psychology and Public Health, La Trobe University, Melbourne, Australia, [2]Non-Communicable Diseases and Implementation Science, Baker Heart and Diabetes Institute, Melbourne, Australia, [3]NHMRC CRE in Digital Technology to Transform Chronic Disease Outcomes, Melbourne, Victoria

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Digital health interventions can widen health inequity because a level of eHealth literacy is required to access and utilise these interventions. This is significant to the most vulnerable and disadvantaged groups in our society, including those with lower eHealth literacy. Digital health interventions present barriers to those with low eHealth literacy as they often include specialised language, lack adequate guidance, and present confusing interfaces. People with lower eHealth literacy are less able to take advantage of digital health interventions to manage and improve their health because of these barriers. Improving interventions for participants with low eHealth literacy is crucial to ensure that they can deliver on their potential to provide scalable and effective support, especially to those who are most vulnerable and disadvantaged. Conversational agents, technologies that interact with people using natural language, can be incorporated into digital health interventions to mitigate eHealth literacy barriers. Well-designed conversational agents can improve accessibility by engaging users in dialogue alongside on-screen instruction, translating specialised language into everyday terms, assessing comprehension in real-time, and offering voice-based interactions as an alternative interface. A systematic review synthesising evidence from 20 papers on the design features of conversational agent-enabled interventions and their impacts on user engagement found that most of the current research evaluating these interventions has typically been of prototypes in quasi-experimental studies. The heterogeneity of interventions and outcomes limited comparisons but was crucial for obtaining broader insights into design impacts. Key findings relevant to this topic included identifying variation in engagement between different population sub-groups, and that conversational agents require unique and novel design considerations, such as deciding whether an agent should adopt a directive or supportive persona. With no standardised design strategies in this emerging field, developers are at risk of making inconsistent decisions that lead to conversational agents ineffectively addressing barriers to access, such as low eHealth literacy, which compromises the potential of these technologies to improve accessibility. Future research should adopt design strategies that are adaptive to diverse user needs and aligned with unique considerations. Enabling conversational agents to cope with low eHealth literacy more effectively will improve health outcomes for all.

E-volution of Case Report Forms: Digitization's Impact on a Clinical Toxicology Database

Miss Ellie Kotkis[1,2], Dr Courtney Weber[1,2], Dr Jennifer Smith[1,2]
[1]Centre for Clinical Research in Emergency Medicine, Harry Perkins Institute of Medical Research, Perth , Australia , [2]East Metropolitan Health Service, Perth , Australia

1D - Communicate and Collaborate: Advancing health care outcomes, Hamersley, September 17, 2024, 1:30 PM - 3:00 PM

Context and Aim

Traditionally, hospital-based research studies have relied on paper-based case report forms (CRFs) for patient enrolment, compromising recruitment and data quality. The State Toxicology Alert Reporting System (STARS) is a secure online clinical toxicology database hosted by the Western Australian (WA) Department of Health. In August 2023, STARS transitioned from paper-based CRFs to digitised CRFs accessible via QR codes. This study compared the completion of electronic CRFs to previously used paper-based CRFs within STARS.

Methods and Analysis

Enrolment into STARS requires a blood sample, a laboratory form, and a completed CRF. Since November 2020, Emergency Department (ED) clinicians across five WA EDs have been educated on patient eligibility and data collection requirements. In August 2023, the paper-based CRFs transitioned to an electronic format with updated educational materials, including posters and lanyard cards.

CRF completeness was defined as the proportion of cases with a created CRF divided by all cases with a blood sample laboratory form identifying STARS enrolment. Both systems were assessed over six months pre- and post-August 2023. Completeness was compared using two-proportion z-tests.

In the six months of paper-based CRFs, 196 of 302 (64.9%) enrolled patients had a completed CRF. In the six months post-digitization, 249 of 291 (85.6%) CRFs were completed. The proportion of completed forms with electronic CRFs was significantly higher than paper-based CRFs ($P<.0001$).

Translational Outcomes

Electronic CRFs improve completeness, streamline data entry, and improve research quality, particularly in resource-poor settings. Additionally, they facilitate real-time data monitoring and automated error-checking, further improving data quality.

Future Actions

Comprehensive ongoing training sessions for ED staff and a feedback loop for continuous system improvement are essential for enhancing processes within STARS and reducing administrative burden. Regular checkpoints to gather feedback from ED staff will prioritise their suggestions, ensuring ongoing refinement and fostering a user-friendly, efficient environment.

Enhancing public health planning in Western Australia through Bayesian modelling

Ms Alisha Davis, Dr Kerry Staples[1], Dr Rajni Rai[1], James Hogg[2], Dr Susanna Cramb[2], Candice Patterson[1], Wendy Sun[1], Tim Landrigan[1], Dr Grace Yun[1], Leo Liu[1], Professor Kerry Mengersen[2], Paula Fievez[3], Dr Laura Kirkland[1], Dr Alex Xiao[1]
[1]Epidemiology Directorate, Department of Health Western Australia, , , [2]Queensland University of Technology, , , [3]FrontierSI, ,

5D - Prioritising public health strategies in Australia, Hamersley, September 19, 2024, 1:15 PM - 2:45 PM

Context:
Providing reliable population health outcome measures for small geographical areas such as local government areas (LGAs) is important when assessing health needs and planning health services as different areas may have significantly different health needs. The Public Health Act 2016 requires all LGAs to develop a local public health plan. In LGAs with small population sizes and small event counts however, it may not be possible to derive reliable epidemiological measures and so efforts to assess health needs and plan health services are hampered.

Methods:
Advanced analysis methods like Bayesian modelling were explored to estimate epidemiological measures for LGAs across WA. Bayesian approaches combine prior information and raw data to borrow information between neighbouring areas and time points to provide complete spatial/temporal coverage of estimates across a region of interest. We applied spatio-temporal Bayesian methods to 10 years (2011-2020) of administrative (e.g., hospitalisation, mortality data) and survey data. Different spatio-temporal Bayesian models were developed for different data types and fit using Markov chain Monte Carlo methods and nimble/CARBayesST packages in R.

Outcomes:
Through Bayesian modelling, annual count estimates and uncertainty measures were produced to derive epidemiological measures (e.g., prevalence, age standardised rate, age-specific rate, years of life lost, and years lost to disability) with increased stability and certainty for a variety of health metrics/conditions for all WA LGAs and HDs. As a result, the modelled estimates have allowed for a more complete picture of population health outcomes and trends to be observed across WA.

Future actions:
The Bayesian approach explored has filled gaps in data commonly observed among small/population-sparse areas when using conventional epidemiological methods. This approach can be applied to other data, allowing public health professionals access to data that forms a more complete picture of population health outcomes to improve the quality of public health planning.

Relationships between education and Indigenous health in OECD countries: a systematic review.

Dr Hannah Barbour[1,2,3], Dr Dennis Asante[1], A/Prof Kalinda Griffiths[1,2,4]
[1]Flinders University, Casuarina, Australia, [2]Menzies School of Health Research, Casuarina, Australia, [3]La Trobe University, Melbourne, Australia, [4]Victorian Comprehensive Cancer Centre Alliance, Melbourne, Australia

1A - Focus on Indigenous self-determination and leadership, Golden Ballroom North, September 17, 2024, 1:30 PM - 3:00 PM

Context and aim

Education is a critical determinant of health, as educational attainment has strong associations to life expectancy, morbidity, and health behaviours [1]. This systematic review assesses evidence for causal links between education attainment – quality, enrolment, participation – and health in OECD countries, with a focus on rural and Indigenous communities. It addresses the research gap on the influence of educational intervention on Indigenous health [2, 3].

Methods and analysis/research findings

Original studies on Indigenous and Tribal Peoples relationship between education and health published from 2000 to 2024 were included in the review. Relevant full text databases, PubMed, CINAHL, Web of Science, Scopus, ProQuest, Informit, and Google Scholar were searched to identify all relevant academic and grey literature. Following PRISMA Guidelines for systematic reviews, the MMAT will be used to critically appraise documents [4, 5]. Qualitative meta-study and meta-aggregation methods will be used for data synthesis [6]

Translational outcomes

It is anticipated that the findings will have broader implications across health policy and advocacy for health equity. Findings will be directly applied to the Northern Territory, where Aboriginal and Torres Strait Islander people make up almost 30% of the population, to support high school completions and the uptake of higher education in health, biomedical and medical courses. It supports the development of more comprehensive evaluation tools in education and reinforces the need for a place-based approach to economic development in rural areas [7].

Future actions

The relationship between education and health must be independently examined by the effects that school enrolment, grade attainment and learning have on health. In doing so it considers the socio-cultural patterns within these contexts contributing to comparable patterns and responses on a global level. This facilitates discussion on the mechanisms underlying each of these effects that may reduce education and health inequalities in the long-term.

References

[1] The Lancet. Education: a neglected social determinant of health. Lancet Public Health 2020; 5(7): e361.
[2] Hart MB, Moore MJ, Laverty M. Improving Indigenous health through education. MJA 2017; 207(1): 11 – 12.
[3] Zajacova A, Lawrence EM. The relationship between education and health: reducing disparities through a contextual approach. Annu Rev Public Health [online]. 2018. [Accessed 29 May 2024] Available from: <https://doi.org/10.1146/annurev-publhealth-031816-044628>.
[4] Beller EM et al. PRISMA for Abstracts: Reporting Systematic Reviews in Journal and Conference Abstracts. PLOS Medicine 2013; 10(4).
[5] Hong QN et al. Mixed Methods Appraisal Tool: User Guide, McGill University: Montreal, Canada; 2018 Aug [Accessed 29 May 2024] Available from:

<http://mixedmethodsappraisaltoolpublic.pbworks.com/w/file/fetch/127916259/MMAT_2018_criteria-manual_2018-08-01_ENG.pdf>.
[6] Lockwood C et al. Qualitative research synthesis: methodological guidance for systematic reviewers utilising meta-aggregation. Int J Evid Based Healthc 2015; 13: 179 – 187.
[7] OECD. Linking Indigenous Communities with Regional Development in Australia. OECD Rural Studies. 2020.

Health justice partnership: recognising legal need as a social determinant of health

Ms Cathy Bucolo[1]
[1]Health Justice Australia, Melbourne, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

In 2012, the Legal Australia-wide survey demonstrated that although one-fifth of Australians experience 3 or more legal problems in a given year, many don't seek legal help and are unlikely to walk through the doors of a legal aid or community legal assistance service. If we do seek legal help, we are more likely to speak to a non-legal advisor such as a health professional, who can quickly feel they are being asked to operate beyond their scope and time.

This legal evidence sparked a grassroots movement of community lawyers moving out of their offices into the most unlikely of places – hospitals, community health and social service settings – to provide legal assistance where, when and how people need it. This innovative collaboration, where legal assistance is integrated into services supporting people's health and wellbeing is known as health justice partnership (HJP).

Health Justice Australia is a national centre of excellence to support more than 125 HJPs across Australia. Health staff and lawyers are collaborating across fragmented, siloed service systems. They respond to the needs of people disproportionately affected by health inequity and injustice including women and children experiencing family, domestic or sexual violence, Aboriginal and Torres Strait Islander peoples, people with mental health conditions, people experiencing homelessness, people with disability and older people experiencing elder abuse. HJPs focus on addressing social determinants of health, such as poor-quality housing, family violence, sexual violence, credit and debt, elder abuse, discrimination, involvement with the child protection system and more. By addressing these, HJP seeks to prevent issues escalating to crisis and promote the health and wellbeing of individuals and families.

In this session you will learn what HJP means for public health – the rationale, outcomes, practice – both nationally and in WA.

Towards Equity: Amplifying Indigenous Voices in Cancer Care Research.

Professor John Gilroy[2], Dr Mandy Henningham[2], Ms Joanna McGlone[1], Ms Drew Meehan[1], Ms Amanda McAtamney[1], Ms Kate Whittaker[1], Dr Farhana Nila[3], Ms Megan Varlow[1], Dr Bena Brown[4], Professor Tanya Buchanan[1]
[1]Cancer Council Australia, Sydney, Australia, [2]Charles Perkins Centre and Faculty of Medicine and Health, The University of Sydney, Sydney, Australia, [3]Charles Perkins Centre, The University of Sydney, Sydney, Australia, [4]Inala Indigenous Health Service, Metro South Health, Inala, Australia

3A - Racism in Health and Decolonisation of the System, Golden Ballroom North, September 18, 2024, 11:00 AM - 12:30 PM

Context and aim: Indigenous Australians experience disparities in cancer outcomes compared to non-Indigenous people, marked by delayed diagnoses, higher mortality rates and sub-optimal care. Yet research aiming to reduce these gaps typically does not have clear evidence of meaningful engagement. We aimed to collate and assess the quality of research about cancer in Indigenous communities, and report on the extent of Indigenous peoples involvement in the research.

Methods and analysis/research findings: A thematic systematic review was conducted, with 91 included studies, reporting on cancer experiences and supportive care needs within Australian Indigenous communities.

We appraised the quality of the studies using two methodologies: a traditional Westernised tool; and an Aboriginal scholar designed tool, comparing the appraisals to determine differences, and evidence of meaningful engagement with Indigenous populations.

Using the Westernised tool, 96% (n=87) of included articles satisfied all criteria, however using the more comprehensive Aboriginal scholar designed tool, no articles were able to satisfy all criteria, with only 11% of the articles (n=10) satisfying half the tool's criteria. The appraisal results demonstrated that research outcomes consistently fail to include appropriate consultation and involvement of Indigenous peoples, exacerbated often by journals not providing avenues to support disclosure of this information.

Six key themes emerged: Culture, family, and community; cancer outcomes and survivorship; psychological distress; geographic diversity and access to health care; cancer education and awareness; and lack of appropriate data.

Translational outcomes: The themes culminated in four recommendations to improve cancer care for Indigenous peoples: Provision of co-designed and tailored information; bolstering the Indigenous cancer workforce; cultural training for non-Indigenous healthcare professionals; and improvement of data collection in research and health services.

This review has identified an urgent need for anti-racist research, funding and publication practices, including the prioritisation and inclusion of active engagement with Indigenous peoples throughout these processes.

Future actions: The importance and positive impact of genuinely involving Indigenous voices in cancer research is critical to improve cancer outcomes and reduce disparities. Systems owners, including institutions, funders and publishers, must be accountable for promoting anti-racist practices; which they can do through the prioritisation of work that genuinely involves Indigenous peoples across every stage.

Study Protocol: Feasibility of co-designed meal box for people with Huntington’s disease

Dr Joanna Rees[1], Dr Travis Cruickshank[1], Prof Amanda Devine[1], Prof Simon Laws[1]
[1]Edith Cowan University, Joondalup, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

People living with Huntington's Disease (HD) face significant nutritional challenges, including motor, cognitive, and swallowing difficulties, leading to malnutrition, weight loss, and poor quality of life. This project will evaluate, for the first time, the feasibility and effects of a co-designed meal box solution on nutritional intake and quality of life in individuals with early HD.

Adhering to GCP, CONSORT, and TiDieR guidelines, this study will evaluate the feasibility and nutritional effects of a tailored meal box for HD families. Beginning with a two-week observational period followed by a two-week intervention, fifteen HD families will receive meal boxes containing ingredients for 28 servings. Feasibility metrics, encompassing process and resource indicators, will monitor participant referral, eligibility, enrolment, completion rates, adherence, retention, and attrition rates. Communication effectiveness and financial implications will also be assessed to ensure cost-effectiveness. Scientifically, participant experience, trial burden, and compliance will be assessed through qualitative interviews and the SF-S12 Short Form questionnaire, with adverse events meticulously documented. Nutritional intake will be quantitatively analysed using a 3-day food diary and FoodWorks® version 10 software to evaluate the meal box’s effectiveness in improving dietary health among HD families, considering both its benefits and associated costs. Additionally, all management aspects such as staff time, recruitment timelines, and study startup activities will be carefully costed to ensure financial transparency throughout the study.

Co-designed with input from the neurological community and HD stakeholders, including individuals with lived experience and healthcare professionals, this study aims to provide essential feasibility and preliminary efficacy data. Positive outcomes could lead to rapid implementation within the neurological community through our industry partner, You Plate It.

Positive outcomes from this feasibility study will pave the way for a randomised controlled trial (RCT) on the effects of the meal box solution in a larger HD population. Favourable findings in a larger RCT will set the stage for discussions on inclusion of the meal box solution on the NDIS. Success of the meal box solution will facilitate its translation for individuals with more severe disease and other neurological conditions.

Putting a target on breast cancer: exploring options for risk-based screening

Ms Joanna McGlone[1], Ms Amanda McAtamney[1], Associate Professor Carolyn Nickson[2]
[1]Cancer Council Australia, Sydney, Australia, [2]The Daffodil Centre, a joint venture between the University of Sydney and Cancer Council NSW, Woolloomooloo, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim

Breast cancer is a pressing public health issue in Australia with a significant health burden. Since commencing in 1991, the BreastScreen Australia program has supported a decline in breast cancer mortality rates by 45% among women aged 50-74 years. However, breast cancer remains the most commonly diagnosed cancer in women, and the second most common cause of cancer death in Australian women. It was estimated that almost 3,300 women will have died from breast cancer in 2023. Challengingly, 22% of breast cancers in Australia are associated with a range of modifiable risk factors, including overweight and obesity, tobacco, and alcohol use.

Methods and analysis

Given the variability of risk factors, and the potential limitations of utilising age-based criteria alone, research has begun into how a risk-based approach to screening may be implemented to help reduce the burden of breast cancer in Australia. In 2023, Cancer Council Australia and The Daffodil Centre completed its four-year Roadmap to Optimising Screening in Australia – Breast (ROSA) project, with funding from the Department of Health and Aged Care. Considering that age-based criteria alone does not capture the full scope of risk factors that women may experience, ROSA aimed to explore options for the implementation of risk-based breast cancer screening in Australia, and options to limit potential screening harms including overdiagnosis.

Translational outcomes

ROSA delivered eight key recommendations which aim to address existing evidence gaps and provide support for implementation. These recommendations fed into the review of the BreastScreen Australia program and provide a roadmap for progress toward risk-based breast cancer screening. Building on the work of ROSA, Cancer Council Australia recently updated the National Cancer Prevention Policy (NCPP) on breast cancer, to reflect the changing landscape of breast cancer screening, and highlight key findings from the project.

Future actions

Risk based breast cancer screening has the potential to reduce the breast cancer burden and ensure that screening is as effective as possible for different groups of women; while maintaining the integrity of population screening. Cancer Council will continue to advocate for a best-practice breast cancer screening program that is robust and evidence-based, and which balances the potential benefits and harms of screening.

Healthiness of food and drink products on price promotion in Australian supermarkets

Miss Jawaahir Alim[1]
[1]Cancer Council WA, Perth, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim

Supermarket promotions play a significant role in purchasing behaviours, dietary intake and community health. When discretionary food and drink products are heavily promoted over everyday essential core food and drink products, this encourages purchases for cheaper, highly processed items which will influence unhealthy eating and poor health outcomes.

Cancer Council WA conducted a six-month analysis between November 2023 - April 2024 to investigate the type and extent of price promotions in the online catalogues of three major Australian supermarkets.

Methods and analysis/research findings

Cancer Council WA's analysis of nine online catalogues found a significant disproportion of price promotion allocated for discretionary food and drink (56%) compared to core food and drink (30%) products. Sugary drinks, desserts and ice cream, unhealthy ready meals and confectionery/chocolate were the most frequently promoted product across all supermarkets. Additionally, discretionary products made up a significant proportion of 'half buy' (67%) and 'multibuy' (73%) promotions.

Translational outcomes

A Cancer Council WA supermarket advocacy report will be released in mid-2024 with findings to be disseminated through a national webinar and media release.
Government mandatory regulations and standards are urgently required to address supermarket price promotion practices and mitigate the current excessive promotion of unhealthy food and drink items. It is critical that policies are enforced through government regulations rather than voluntary industry-led regulations for meaningful and impactful change to supermarket environments.

Future actions

This analysis will add to the existing body of evidence which shows that unhealthy food and drink items are promoted significantly more than core food and drink items in Australian supermarkets. Results of this analysis can be presented at the conference.

Equity of access in rural and urban dementia diagnosis, management and care

Ms Hannah Gulline[1], Dr Sarah Carmody[1], Ms Amelia Bevins[1], Associate Professor Darshini Ayton[1]
[1]Health and Social Care Unit, Monash University, Melbourne, Australia

5C - Population health and equity, Golden Ballroom South, September 19, 2024, 1:15 PM - 2:45 PM

The limited allocation of resources to geographically diverse populations is an inherent cause of health inequities. Distribution of health service resources between urban and rural areas commonly sees highly populated areas prioritised over more sparsely populated and geographically vast areas. As such, challenges impacting dementia diagnosis, management and care in urban areas are experienced more acutely in rural areas. This research examined equity of access to dementia diagnosis, management and care services for people diagnosed with dementia and/or their significant others (partner/spouse, adult children, siblings, and friends) throughout rural and urban Australia.

A descriptive qualitative study involved conducting online semi-structured interviews with thirty-seven people with experience of the dementia diagnosis process as a patient and/or significant other. Russell's (2013) Dimensions of Access framework guided data analysis (availability, geography, affordability, accommodation, timeliness, acceptability, and awareness). Disparities in access between urban and rural areas emerged in five key dimensions: 1) availability of healthcare and support services; 2) geography impeding ability to access services; 3) affordability of travel expenses; 4) acceptability of available health professionals and services; and 5) awareness of local services and resources. The dimensions of accommodation and timeliness of care were experienced as challenges irrespective of location, with lengthy appointment wait times and difficulty navigating complex systems.

The study findings have been incorporated into the Centre of Research Excellence in Enhanced Dementia Diagnosis (CREEDDs) accessibility planning and implementation model, as it endeavours to translate innovative dementia diagnostics into clinical practice and achieve timely, accurate and equitable diagnosis throughout Australia.

Significant health inequities persist across the Australian rural-urban divide that must be recognised and addressed in research translation. Employing frameworks that facilitate the identification of inequities and prioritising targeted action to address disparities is vital to ensure equitable dementia diagnosis, management and care nationwide.

“Inclusion Health” – a useful concept for Australia to import?

Prof Lisa Wood[1], Dr Rachel Skoss[1]
[1]The University of Notre Dame Australia, Fremantle, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem that requires public health action?

Many Australian health strategies and programs specify priority population groups where there is either a higher prevalence or risk, or concerns that mainstream strategies do not effectively reach some population groups. However, there is a risk that even as the number of named priority groups grows, some populations may remain invisible, particularly if there a dearth of data to raise their profile as a population warranting prioritisation. There is also a risk that health funding and policies become siloed around different population groups, and the common ‘causes of the causes’ may be missed.

What have we learned to address this problem?

In the UK and Ireland , this has been partially overcome by the now widely used concept of Inclusion Health, which can be defined as a field that seeks to prevent and address health and social inequalities experienced by groups of people who often have multiple overlapping risk factors for poor health, including poverty, trauma or social exclusion. Inclusion Health thus is an umbrella concept and approach to health equity, that can be applied across multiple settings and issues.

How has this been used in practice?

The litmus test for the usefulness of any concept is how it has been applied. International examples of how Inclusion health has had traction in government policy, service commissioning and efforts to avoid people ‘falling through the cracks’ of the health system will be shared.

What actions should we take to address the issue?

The Inclusion Health concept and approach could be a useful approach in Australia. It resonates with this PHAA conference highlighting the need for public health to be collectively responsive to the diversity of voices and community needs .

Look After Your Blood: the development of a blood-borne virus campaign

Mr Matthew Bacon[1], Ms Rudie Marshall-Lang[1], Ms Jude Bevan[1], Ms Melissa Coci[1], Ms Donna Garcia[2], Mr Matthew Armstrong[2]
[1]Communicable Disease Control Directorate, WA Department of Health, East Perth, Australia,
[2]Hepatitis WA, Northbridge, Australia

1D - Communicate and Collaborate: Advancing health care outcomes, Hamersley, September 17, 2024, 1:30 PM - 3:00 PM

What is the problem/issue that requires public health action? [Context and aim]

Amongst Aboriginal populations in WA, injecting drug use (IDU) is reported as the risk factor for the majority of hepatitis C notifications, and for some HIV notifications. This demonstrates the continuing need for the WA Department of Health (WA DoH) to raise awareness of the prevention, testing and treatment of blood-borne viruses (BBVs) amongst Aboriginal people.

What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]

WA DoH’s previous BBV campaign evaluation demonstrated good performance, with 40% of survey respondents recalling having seen the campaign and 20% noting they got tested for HIV and hepatitis C as a result of seeing the campaign. The previous campaigns success is largely attributed to three-quarters of respondents feeling the content was created by people who understand their community and their culture.

How has this been used in practice? [Translational outcomes]
Using strong stakeholder and consumer engagement has guided the key messages, approach, and concepts of the current campaign. Engagement occurred through focus groups, media consumption analysis and interviews conducted with people that had lived experience of BBVs. Key successes of engagement have been:

1. the partnership with both Aboriginal health services and peer-based drug user organisations which have facilitated relatable campaign scenarios
2. use of peoples lived experiences and assessed where opportunities for intervention could have occurred and exploring how a campaign could support achieve this
3. being able to address the shame as a barrier to BBV healthcare without contributing to the stigma that can be associated with drug use
4. identifying mediums to utilise that could have greatest reach with Aboriginal communities.

What actions should we take in the future to address the problem/issue? [Future actions]
The campaign launch is scheduled in June 2024. Preliminary feedback has highlighted the campaign materials are relevant and impactful. The campaign will be regularly monitored using media analytics. Analytics from the first campaign media buy will be presented at the conference.

Disclosure of Interest Statement:
The authors conducted this work have no conflicts of interest to declare.

195

Bridging Siloed Approach to Healthcare: Integrating Oral Health into AOD Recovery

Mr Dane Webster[1], Prof Lisa Wood[1], Mrs Emma Jarvis[2]
[1]The University Of Notre Dame Australia, Fremantle, Australia, [2]Palmerston Association, Perth, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

What is the issue that requires public health action?
Health program funding is often siloed around a particularly health condition or risk factor. But co-occurring health issues are common, and many people value a more holistic approach to health and wellbeing. For people in Alcohol and Drug (AOD) recovery, chronic dental issues are widespread, often caused or exacerbated by AOD use. Missing teeth or poor oral health impacts has a ripple effect on what people can eat, confidence, self-worth, interactions with other people and motivation to change. But cost and stigma are barriers to addressing this.

What have we learned to address this issue?
Through a collaboration between an AOD organisation, a community homelessness service with a dental clinic, and a retired volunteer dentist, free comprehensive dental care has been offered to all residents at ‘The farm’ [residential rehabilitation program] for the last two years. The pilot program was codesigned with clients and has been evaluated by The University of Notre Dame. The evaluation includes dental treatment data, pre and post surveys, client interviews and staff feedback.

How has this been used in practice?
The integration of this trauma informed oral healthcare program within AOD recovery has yielded substantial benefits for individuals and the organisation, and has enhanced motivation to address AOD issues and remain in the recovery program. It has now been adapted for one of the regional communities Palmerston is based in, and findings informed a submission to a federal inquiry on access to dental services, advocating for people with AOD dependence to be recognised as a priority group.

What actions should we take in the future?
While this program is implemented in an AOD residential setting, its findings are highly relevant to other populations facing barriers to accessing oral healthcare, and individuals or communities embarking on recovery.

Upskilling service providers on LGBTQA+ suicide prevention

Dr Penelope Strauss[1], Rikki Battersby-Coulter[1], Oliver Keane[1], Julia R. Bak[1], Kirsty Hird[1,3], Dr Julia K. Moore[4], Dr Yael Perry[1,2]
[1]Telethon Kids Institute, Nedlands, Australia, [2]University of Western Australia, Perth, Australia, [3]Curtin University, Perth, Australia, [4]Gender Diversity Service, Child and Adolescent Health Service – Mental Health, Perth Children's Hospital, Perth, Australia

5A - Cultural Competence in Healthcare and Public Health, Golden Ballroom North, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim: LGBTQA+ (lesbian, gay, bisexual, trans, queer/questioning, asexual and other diverse sexualities and genders) young people are up to six times as likely to report thinking about suicide, engaging in suicidal behaviour and/or having made a suicide attempt, compared to their heterosexual and cisgender peers. This population also experiences many barriers to accessing safe and inclusive mental health care. Thus, there is urgent need for services to engage in appropriate and inclusive suicide prevention practices for this population.

Methods and analysis: We developed a set of guidelines outlining best practice for suicide prevention in LGBTQA+ young people within clinical and community settings using the Delphi consensus method. Two panels of experts (research/clinical professionals, and LGBTQA+ youth aged 14-25 with lived experience of suicidal thoughts/behaviour) rated action statements regarding their relative importance in preventing suicide among LGBTQA+ young people. 290 items were included covering the following key areas: i) general principles for creating an affirming and inclusive environment for LGBTQA+ young people, ii) assessing suicide risk and working with suicidal LGBTQA+ young people, iii) Considerations for specific LGBTQA+ populations and iv) advocating for LGBTQA+ young people. The guidelines are the first of their kind and provide practical guidance to service providers.

Translational outcomes: We are developing, trialling and evaluating a training program on the guidelines in 2024. The evaluation of the training will include an auditing and implementation framework for service providers. This presentation will describe the development of the guidelines, provide an overview of our implementation plan and preliminary results.

Future actions: We anticipate these guidelines to have high applicability within a variety of community and clinical settings, broadly improving the support provided to LGBTQA+ young people. Systemic change is needed to incorporate LGBTQA+ content within all public health and health (including medicine and psychology) training programs.

“Had we known the bigger picture”: population implications for dementia awareness

Ms Amelia Bevins[1], Ms Hannah Gulline[1], Dr Sarah Carmody[1], Associate Professor Darshini Ayton[1]
[1]Health and Social Care Unit, Monash University, Melbourne, Australia

3C - Evidence, strategy, and creativity to promote behaviors, policies, and practices, Golden Ballroom South, September 18, 2024, 11:00 AM - 12:30 PM

Achieving timely diagnosis of dementia across the Australian population is a critical priority to address dementia’s significant burden of disease. Early recognition and diagnosis of dementia provides access to vital services, therapies, and supports to delay and manage disease progression. Yet estimates show that approximately 50% of Australians with dementia remain undiagnosed and are living without formal support. Additionally, limited population awareness about dementia contributes to significant misunderstanding and stigma. Population misconceptions present dementia as an inevitable part of ageing and are predominantly concerned with memory loss. Despite a global impetus for earlier dementia diagnosis, there is little understanding on what leads people to seek a diagnosis.

A qualitative study explored pre-diagnostic dementia symptoms as they presented in people’s everyday lives. Semi-structured interviews were undertaken with thirty-seven people who had themselves experienced dementia symptoms or their significant others (spouse/partner, child, sibling, friend). Qualitative data was systematically mapped to the International Classification of Functioning and Disability (ICF). Descriptions of symptoms ranged widely across ICF domains and included changes to: mental and sensory functions, communication, mobility, and social reciprocity. Symptoms were described in the context of daily life, workplaces, and relationships. Key themes included the significance of retrospect and the threshold for seeking help.

The findings were further mapped to the Social Model of Health to establish dementia key action areas and priorities for health promotion and public health, including campaigns that equip individuals, workplaces, and communities to informally recognise dementia. Future work in increasing awareness about dementia and recognition of pre-diagnostic symptoms are important drivers to lower the threshold for seeking help and achieve earlier dementia diagnosis.

These priorities are being progressed through research-practice collaborations by the Centre for Research Excellence in Enhanced Dementia Diagnosis (CREEDD), working towards accurate, equitable, and fast diagnosis throughout Australia.

A large outbreak of Salmonella Typhimurium in Western Australia, March 2024

Dr Alison Brown[1,2], Dr Stacey Hong[1], Dr Barry Combs[1], Carolien Giele[1], Dr Jelena Maticevic[1], Dr Rebecca Hogan[1], Henry Tan[3], Nicole Foxtrot[4], Marko Scekic[4], Dr Avram Levy[5], Dr Cara Minney-Smith[5], Dr Daniel Knight[5], Dr Paul Armstrong[1]
[1]Communicable Disease Control Directorate, Department of Health WA, East Perth, Australia, [2]Australian National University, Canberra, Australia, [3]Environmental Health Directorate, Department of Health, East Perth, Australia, [4]City of Stirling, Stirling, Australia, [5]PathWest Laboratory Medicine, Nedlands, Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem/issue that requires public health action? [Context and aim]

Salmonella Typhimurium is a zoonotic pathogen that causes gastroenteritis. It is transmitted primarily via contaminated food. In March 2024, the Western Australian Department of Health was alerted to a growing cluster of Salmonella cases in Perth.

What do we know or have we learned to address this problem/issue, and how has this finding been derived? [Methods and analysis/research findings]

An outbreak investigation comprising epidemiological, laboratory and environmental findings ensued.

There were 182 possible cases identified via notifications from laboratories, general practice and hospitals. Interviews about demographics, symptoms and food histories were conducted for 169 cases, which identified 144 outbreak cases linked to a single food venue.

S. Typhimurium multiple-locus-variable number tandem repeats analysis (MLVA) types 03-14-06-11-523, 03-14-06-12-523 and 03-14-07-12-523 were identified in the stool samples of 74% (107/144) of outbreak cases, while 26% (37/144) of cases were defined by their clinical and epidemiological links. These MLVA types had not previously been identified in WA.

All 144 outbreak cases had symptoms consistent with salmonellosis, including 33 people who were hospitalised. 140 cases reported consuming banh mi from the food venue 5-140 hours (median 30 hours) prior to symptom onset. The banh mi contained pork, chicken, or tofu, with raw-egg mayonnaise as a common ingredient.

An inspection was conducted at the food venue. A swab from the food processor confirmed contamination with S. Typhimurium. Whole genome sequencing linked this isolate to the outbreak cases. The food processor had been used to produce mayonnaise, liver pâté, and shredded tofu used in banh mi. The inspection identified substandard cleaning of the food processor and inadequate cooking temperature of raw liver products.

How has this been used in practice? [Translational outcomes]

This is the largest known Salmonella outbreak associated with banh mi in WA. Early control measures were implemented, including immediate cessation of use of raw-egg mayonnaise, disinfection of the contaminated food processor, and disposal of affected ingredients. Case ascertainment continued until eight weeks post outbreak identification There were no further infections following the implementation of the control measures.

What actions should we take in the future to address the problem/issue? [Future actions]

This outbreak demonstrated that multi-agency surveillance and response activities are key to the detection and containment of serious food-borne outbreaks. Furthermore, banh mi has been frequently implicated in food-borne outbreaks. Consideration to the use of safer raw ingredients, and attention to food safety standards is advised.

Impact of Increasing Temperature on Enteric Infections burden in Australia

Mr. Yohannes Tefera Damtew[1], Dr. Blesson Mathew Varghese, Dr. Olga Anikeeva, Dr. Michael Tong, Professor Peng Bi
[1]The University Of Adelaide, Adelaide, Australia

1B - Health ramifications of climate change, Golden Ballroom Centre, September 17, 2024, 1:30 PM - 3:00 PM

Objectives: As temperatures rise, there is an increase in the transmission and incidence of enteric infections such as Salmonella and Campylobacter. Our study aimed to estimate the current and future burden attributed to increasing temperature in Australia.
Methods: We obtained data on disability-adjusted life years (DALYs) related to Salmonella and Campylobacter infections from the Australian Institute of Health and Welfare (AIHW) Burden of Disease database for the years 2003 to 2018. To determine how temperature affects these enteric infections, we conducted a meta-analysis of previous studies. This allowed us to calculate the relative risks per 1°C temperature increase based on the Köppen-Geiger climate zone sub group. Using the comparative risk assessment (CRA) framework, we determined the threshold or theoretical minimum risk exposure distribution (TMRED) for each climate zone. This information enabled us to assess the burden of Salmonella and Campylobacter infections attributed to temperature at different climate zone and Jurisdiction level. during the baseline period (2003–2018) and project future burdens for the 2030s and 2050s. We considered two greenhouse gas emission scenarios (Representative Concentration Pathways, RCP 4.5 and RCP 8.5), two adaptation scenarios, and different population growth series.

Results: During the baseline period (2003-2018), mean temperatures contributed 8.7% of the total burden or 28.4 DAYLs (95%CI:26.5-30.3) of the observed Campylobacter burden and 75.7 DAYLs (95%CI:74.4-80.5) or 18.3% of the observed Salmonella burden in Australia. The mean temperature-attributable burden for both enteric infections varied across climate zones and jurisdictions. Under both RCP scenarios, the projected burden of enteric infections is estimated to increase in the future, despite adaptation scenarios. The burden is projected to be the highest at tropical climate zones and at state level, it will be in Queensland. By the 2050s, without adaptation, the burden of Salmonella infection could reach 97.5 DAYLs under RCP4.5 and 110.5 DAYLs under RCP8.5. Meanwhile, the burden of Campylobacter infection could reach 36.7 DAYLs under RCP4.5 and 41.6 DAYLs under RCP8.5. Implementing a 10% adaptation strategy under RCP8.5 could reduce the burden of Salmonella and Campylobacter to 37.9 and 100.1 DAYLs in 2050, respectively. However, it should be noted that these values would still be higher than the baseline period.

Conclusion: These findings offer valuable insights that can inform policy decisions and guide the allocation of resources in order to mitigate the future burden of both enteric infections. The findings highlight the importance of developing adaptation strategies that are tailored to specific locations, with a focus on controlling and preventing climate-sensitive diseases.

Keywords: Salmonella; Campylobacter; Burden of disease; Climate change; Attributable burden; Adaptation

The Impact of Intimate Partner Violence in Caste Dynamics on Child Mortality

Dr Aditi Roy[1], Prof Gavin Pereira, Dr Jennifer Dunne, Dr Sylvester D Nyadanu, Dr Gizachew Tessema
[1]Curtin University, Bentley, Australia

1C - Social Determinants of Health: the challenge, Golden Ballroom South, September 17, 2024, 1:30 PM - 3:00 PM

In regions of India where caste systems deeply influence social dynamics, women experiencing intimate partner violence (IPV) poses risk to the lives of newborns, infants, and children. This study investigates the impact of IPV on child mortality across various caste groups, exploring how IPV within families affects the survival of the most vulnerable. Addressing IPV within these social structures is crucial, not only for the immediate safety of individuals but also for the broader goal of improving child health outcomes and maternal well-being. By examining the impact of IPV in caste dynamics on child mortality, this research aims to uncover underlying factors that perpetuate these issues.

This study used data from recent National Family Health Surveys (NFHS) in India from 2015 to 2021, involving 58,685 mother-child pairs who completed the prevalence of IPV. Adjusted odds ratios (aOR) were used to assess the impact of caste-based intimate partner violence (IPV) on child mortality.

Mothers from upper castes experiencing intimate partner violence (IPV) have a significant impact with an increased likelihood of neonatal (1.715***), infant (1.488***), and child mortality (1.434***) compared to mothers from lower castes who face IPV. This difference could be due to varied access to resources, coping strategies, and community support. Despite having better healthcare and education, mothers from upper castes may endure more psychological stress and societal pressure from IPV, which can adversely affect their children. Conversely, mothers from lower castes often benefit from stronger community ties and more effective coping methods, protecting their children from IPV's impacts. Additionally, these mothers typically work, potentially enhancing their empowerment and household bargaining power, aiding them in managing IPV more effectively. This scenario demonstrates how socio-economic and cultural factors significantly shape the effects of IPV in caste dynamics on child mortality, emphasising the importance of tailored interventions.

Tackling IPV in caste-specific situations is essential to protect the health of mothers and children. Further, incorporating IPV interventions into existing programs can significantly improve survival rates for newborns and children in India, while also ensuring maternal health.

201

When fast-food moves in next-door: Perceptions of living beside a fast-food outlet

Dr Ros Sambell[1], Mrs Jana Buckle[1], Clare Whitton[1,2], Lukar Thornton[3], Paula Hooper[1,4], Siobhan Hickling[6], Gina Trapp[1,4,5]
[1]Nutrition and Health Innovation Research Institute, School of Medical and Health Sciences, Edith Cowan University, Joondalup, Australia, [2]School of Population Health, Curtin University, Perth, Australia, [3]Department of Marketing, Faculty Business and Economics, University of Antwerp, Antwerp, Belgium, [4]School of Medicine, The University of Western Australia, Crawley, Australia, [5]Telethon Kids Institute, The University of Western Australia, Crawley, Australia, [6]School of Population and Global Health, The University of Western Australia, Crawley, Australia

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim:
Increased spatial exposure to unhealthy food outlets such as fast-food outlets are thought to promote unhealthy eating behaviours. Locating fast-food outlets near schools is a potential public health risk to schoolchildren, given the easy access and repeated exposure to energy-dense nutrient-poor foods they provide. The aim of this study was to investigate the impact of fast-food outlets being built near schools on local residents' experiences and perceptions of their neighbourhood.
Methods and research findings:
In-depth semi structured interviews were conducted among homeowners (n=11) located in Alkimos, Western Australia living within 500m of a new fast-food outlet. Interviews were thematically analysed using NVivo. Initial findings indicated residents were not consistently informed of the decision to build a fast-food outlet close to their properties and most were concerned about the quantity located within the area and questioned the planning approved by the local council/government. Some residents also expressed concern for the health and safety of the schoolchildren accessing the fast-food outlet and many perceived negative environmental impacts since the opening of the outlet, most notably increased traffic and litter.
Translational outcomes:
The project's findings support advocacy efforts for change in local government planning and policy. The findings will be disseminated to researchers, relevant stakeholders including the WA Planning Department, the Planning Institute of Australia and all research participants (by email). A press release will also be issued to coincide with the publication of the main findings from this study. The data from this study could raise awareness within the community and policy makers that most residents are not supportive of fast-food outlets being built within residential areas.
Future actions:
Support advocacy to government through a ground up approach to highlight the need to promote and foster healthy eating environments in planning laws and the importance of listening to and engaging with residents to contribute to targeted policy in urban planning.

A systematic review of climate change interventions for child health

Ms Jhermayne Ubalde[2]
[1]Telethon Kids Institute, Nedlands, Australia, [2]University of Western Australia, Nedlands, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Climate change has been declared the “single biggest health threat facing humanity” by the World Health Organization. Children under five years of age bear an estimated 88% of the additional disease burden caused by a changing climate, and every organ system has been found to be impacted. A range of interventions have been introduced to reduce the harms of climate change on child health outcomes, but few have been scientifically assessed. We did a systematic review to collate and synthesise the available global evidence.

Fifty-eight studies were identified examining the effects of various interventions on child health in response to climate change. Heat interventions included green space, heatwave warning systems, maternity ward relocation, educational brochures, and high school sports guidelines. Water, sanitation and hygiene interventions included household cisterns, as well as various national-level and school-level programs. Interventions for disaster risk management included school educational programs, post-flood deployment of midwives, and behavioural strategies for pregnant women during wildfire events. Respiratory interventions included retrofitting schools and houses, educational brochures, green space, and pneumococcal conjugate vaccines. Mental health interventions included post-bushfire counselling and green space in schoolyards. Vector-borne disease interventions included insecticide-treated nets, indoor residual spraying, and artemisinin combination therapy. The co-benefits of mitigation for child health were also examined. Studies mainly modelled child health outcomes under various pollution reduction scenarios. Specific mitigation strategies included green space and city-level transportation policies.

Overall, there was a scarcity of literature available. This has significant ramifications for policy. Without quality evidence, the effectiveness of child health interventions integrated within existing climate change policy is unknown. There may be little to no action being taken globally to address this crisis; and where actions have been outlined in policy, their level of implementation may be inadequate to provide meaningful improvements for child health.

Improving the cultural safety of cancer screening for LGBTQISB+ First Nations peoples

Ms Khwanruethai Ngampromwongse[1]
[1]The University Of Queensland, Herston, Australia

3A - Racism in Health and Decolonisation of the System, Golden Ballroom North, September 18, 2024, 11:00 AM - 12:30 PM

Purpose: Cancer is a leading driver in the health gap between First Nations and non-First Nations people. Prior research has identified cultural safety issues and experiences of racism within cancer care pathways, particularly impacting the wellbeing of First Nations adults. Little is understood about the specific needs and additional barriers confronting by Lesbian, Gay, Bisexual, Trans, Intersex, Queer, Sistergirl, and Brotherboy (LGBTQISB+) First Nations individuals in this context. This systematic review aims to identify and describe the existing evidence base around enablers and barriers contributing to the accessibility of cancer screening for LGBTQISB+ First Nations people in the cancer space. However, research with a specific focus LGBTQISB+ First Nations people within cancer context in Australia is scarce, therefore, the scope of this review was broadened to include LGBTQI2S+ Black, Indigenous and People of Colour (BIPOC) in Canada, Australia, Aotearoa New Zealand, and the United States of America.

Methods: A comprehensive search of MEDLINE, Embase, Web of Science, PsycINFO, Scopus, CINAHL, and PubMed databases was conducted, focusing on qualitative literature pertaining to BIPOC and LGBTQI2S+ populations and cancer screening up to January 2024.

Results: After full text screening, 13 studies were included. Thematic analysis of the literature elicited six key themes: Challenging cisheteronormative knowledge; Tailored information provision; Navigating strategic disclosure; Addressing intersectional discrimination; Self-advocating and initiating conversations; and Paternalistic healthcare dynamics.

Implications: The findings reveal unique experiences of participating in cancer screening and identifies several unmet needs which should be appropriately and systematically addressed.

Future Direction: To bridge the critical research gap, our team is conducting a pilot study to explore and describe experiences of LGBTQISB+ First Nations peoples accessing cancer screening. This pilot study is a research project that centres the views and experiences of LGBTQISB+ First Nations people with the aim of improving the delivery of appropriate early detection and cancer screening for LGBTQISB+ First Nations peoples that is culturally safe, supportive of sexuality and gender identity, and ameliorates the discrimination related barriers to cancer care. The lead author will be discussing findings from the systematic review, how it has shaped the research project design, the pilot study preliminary findings and future direction.

Findings of this study will inform equitable, accessible, culturally appropriate strategies to improve access to cancer screening that supports the holistic wellbeing of LGBTQISB+ First Nations peoples.

204

Metropolitan ACCHO response to a household Group A Streptococcus outbreak

Dr Daniel Hunt[1], Dr Richelle Douglas[1]
[1]Derbarl Yerrigan Health Services, Perth, Australia

1A - Focus on Indigenous self-determination and leadership, Golden Ballroom North, September 17, 2024, 1:30 PM - 3:00 PM

Background: Acute post-streptococcal glomerulonephritis (APSGN) is an immune mediated condition that occurs as a results of Group A Streptococcus (GAS) infections. 75% of APSGN is caused directly by environmental conditions and on occasion result in outbreaks in Aboriginal Communities. Since 2017 APSGN is a notifiable disease in Western Australia.

Case: The Metropolitan ACCHO was contacted by the Metropolitan Centre for Disease Control and requested to manage exposure investigation and contact management of an Aboriginal family of 12 with suspected GAS infection outbreak. This was as the result of the admission of one of the children to a tertiary hospital with APSGN. Medical and environmental intervention were directed by the ACCHO to control the spread of the GAS outbreak and reduce the risk of additional family members suffering the consequences of GAS infections.

Conclusion: This case outlines this Aboriginal family’s journey into receiving appropriate GAS exposure investigation and contact management, additionally exemplify the holistic and environmental care needed for appropriate GAS outbreak management. This case provides an occasion to examine the strengths and weakness observed in address in GAS outbreak.

Aboriginal child hearing health in Far West of South Australia: PATHWAY Project

A/Prof Jacqueline Stephens[1], Dr Amanda Machell[1], Lisa Callahan[1], Emma Burnett[2], Jessie Sleep[2], Patrick Sharpe[2], A/Prof Courtney Ryder[1]
[1]Flinders Health and Medical Research Institute, Flinders University, Bedford Park, Australia, [2]Far West Community Partnerships, Ceduna, Australia

1A - Focus on Indigenous self-determination and leadership, Golden Ballroom North, September 17, 2024, 1:30 PM - 3:00 PM

Context and Aim
Ear infections, and the associated hearing loss, disproportionately impact Aboriginal children and can have lifelong impact on health and wellbeing. Early detection is crucial for timely treatment, but persistent high rates suggest service access continues to be inadequate. We described the first phase of developing a Community-wide strategy to improve access to ear and hearing health services for Aboriginal children living in the Far West of South Australia.
Methods and Analysis
Working at the interface of Indigenous Knowledges and Western methods, we gather Community experiences using yarning (interviews) with key populations across the region, including families with young children who a history of ear disease; young people with lived experience of ear disease; healthcare providers and policy makers; and teachers. Aboriginal researchers, who are Community members, will lead the data collection and analysis. This project is guided by senior Community Elders who give advice on the direction of the study.
Translational Outcomes
Community wide yarning will underpin the development of a deep understanding of the ear and hearing health journey experienced by children and young people. These findings will be used to drive Community consultation and stakeholder workshops to develop potential strategies to address the identified gaps in ear and hearing health service delivery across the Far West region of South Australia.
What actions should we take in the future?
A deep understanding of the lived experiences of the Far West Community where child’s ear and hearing health has been identified as a key concern is crucial for strategy design and implementation. Working in partnership with Far West Community Partnerships, we will use the findings to underpin the development of a Community-specific, co-created implementation strategy. Once developed, the resultant strategy will be implemented and evaluated to determine the impact on the child’s referral pathway.

Aboriginal Partnership
This project is being undertaken in partnership with Far West Community Partnerships, together with input from Yadu Health and Tullawon Health Services, and with ongoing guidance from the Ceduna Nanas Group on the research direction. Data collection for the project is being undertaken in a capacity building partnership by Community-based staff and Flinders University researchers, with leadership and facilitation supported by Far West Community Partnerships. The authorship team includes Aboriginal Community Leaders who have input into the study design and dissemination plan.

Impact of socially fragmented neighbourhoods on developmental vulnerability in Indigenous Australian children

Dr Susan Hartono[1], Dr Antonia Kish[1], Associate Professor Nasser Bagheri[1], Professor Rachel Davey[1]
[1]Health Research Institute, University of Canberra, Bruce, Australia

5A - Cultural Competence in Healthcare and Public Health, Golden Ballroom North, September 19, 2024, 1:15 PM - 2:45 PM

In Australia, the prevalence of early childhood developmental vulnerability at school entry is higher in Indigenous than non-Indigenous children. Characteristics of children, parents, and the built-environment have been used to predict developmental vulnerability in Indigenous Australian children, but the role of neighbourhood social fragmentation has not been previously studied. Thus, we examined the relationship between neighbourhood social fragmentation and developmental vulnerability, comparing this between Indigenous and non-Indigenous Australian children.

Method: We cross-sectionally analysed data from 287,135 five-year-old children in 2330 Statistical Area 2 (SA2) from the 2021 Australian Early Development Census (AEDC). AEDC measures five domains of early development: physical health and wellbeing, social competence, emotional maturity, language and school-based cognitive skills, and communication skills and general knowledge. The primary outcome was having developmental vulnerability in one or more of these domains. Social fragmentation was measured using the Australian National Social Fragmentation Index, which includes people living <1 year in their neighbourhood, privately rented households, single-person households, nonfamily households, unmarried persons, households with school-aged children, recent immigrants arrived <1 year, immigrants arrived >15 years ago, residents living >5 years in the neighbourhood, and people who volunteer.

Results: The two-level (children within SA2) logistic regression models (controlling for child, parent, and neighbourhood sociodemographic and socioeconomic factors) showed that children in more socially fragmented neighbourhoods had a significantly higher likelihood of developmental vulnerability (Odds Ratio 1.02, 95% confidence interval 1.01–1.03). However, this effect was much more pronounced in Indigenous (OR 1.07, 95% CI 1.04-1.10) than non-Indigenous Australian children (OR 1.02, 95% CI 1.01-1.03).

Conclusion: Our findings highlight the importance of addressing neighbourhood social fragmentation to reduce developmental vulnerability and promote equality in educational and health outcomes between Indigenous and non-Indigenous Australian children. Community programs, better housing policy, and built-environment planning may enhance social cohesion and improve early childhood development.

The AEDC is funded by the Australian Government Department of Education, Skills, and Employment. The Data Management Agency only gave us permission to use the 2021 AEDC de-identified data for research purposes. We were not permitted to (could not) contact the relevant Indigenous Australian children and families.

Cast adrift: addressing healthcare and public health gaps for Australians with dementia

Dr Sarah Carmody[1], Ms Hannah Gulline[1], Ms Amelia Bevins[1], Associate Professor Darshini Ayton[1]
[1]Monash University, Melbourne, Australia

5C - Population health and equity, Golden Ballroom South, September 19, 2024, 1:15 PM - 2:45 PM

Australian healthcare and public health systems currently give limited attention to managing, caring and supporting people living with dementia and their families. Yet, dementia is the second leading contributor to Australia’s burden of disease, and directly impacts over 400,000 Australians living with dementia and over 1.6 million caregivers. All too often, Australians impacted by dementia are left to learn about the condition themselves, source much-needed services and support, and navigate community life.

This research investigated post-diagnosis experiences of dementia throughout Australia, identifying the priorities of people with dementia and their families. Semi-structured interviews were conducted with 37 people who were diagnosed with dementia or significant others (spouse/partner, child, sibling, friend) in Australia. Interviews explored dementia diagnosis journeys through River of Life storytelling. The Three Perspectives of Human Malady theory guided data analysis, conceptualising dementia as a disease, an illness, and a sickness. This approach reflected multi-dimensional experiences across healthcare, services, personal and family life, and broader community involvement.

The majority of participants reported experiences in navigating healthcare systems, accessing support for dementia and participating in community life as extremely difficult. The time after the dementia diagnosis left many feeling lost and surprised about the limited support for such a major condition. Participants described much of the healthcare system being oriented towards disease and medical perspectives of dementia, including medical appointments, testing, results and getting a diagnosis.

Illness and sickness perspectives of dementia, encompassing how people felt about themselves and living within their community, were pivotal to the experience of dementia. Many reported poor recognition, services and structures addressing the social, emotional and wellbeing perspectives of dementia. A framework reflecting multi-dimensional components for living well with dementia was developed from the findings, and established a post-diagnosis telehealth support program as part of the Centre of Research Excellence in Enhanced Dementia Diagnosis.

Narratives of Wellbeing and Racism: The Dual Reality for First Nations Peoples

Ms Khwanruethai Ngampromwongse[1]
[1]University Of Queensland, Everton Park, Australia

3A - Racism in Health and Decolonisation of the System, Golden Ballroom North, September 18, 2024, 11:00 AM - 12:30 PM

Background: Widespread racism is an enduring legacy of colonisation and is deeply entrenched in Australian society, systems, and structures. Despite extensive documentation of experiences of racism by First Nations peoples, the ongoing impacts of racism, in all its forms, on the wellbeing of First Nations peoples has received limited attention. Drawing upon narratives from a national qualitative study focusing on the positive aspects of wellbeing, the research illuminates how participants spontaneously disclosed experiences of racism as integral components of their life stories.

Aims: This study aimed to qualitatively explore the complex pathways through which racism is impacting on the wellbeing of First Nations adults.

Methods: First Nations adults were recruited from around Australia to participate in Yarning Circles led by First Nations facilitators about wellbeing. A First Nations-led secondary reflexive thematic analysis was conducted to describe the pathways through which racism impacts on wellbeing.

Results: 359 First Nations adults participated in one of 45 Yarning Circles or six Individual Yarns. Our analysis revealed the following seven pathways through which racism impacts the lives of First Nations adults: threatening cultural survival; undermining kinship systems; denigrating First Nations systems of power and justice; battling stereotypes; harming mental health; undermining identity, and pride; and challenging the right to self-determination and sovereignty.

Conclusion: Our findings highlight the wide-ranging and complex pathways through which racism impacts First Nations adults’ wellbeing and add to mounting calls for urgent action to eradicate racism, in all its forms, in Australia.

This research highlights the deeply entrenched nature of racism in Australian society, rooted in colonial history and ongoing structural inequities. Despite efforts to promote wellbeing and resilience, racism continues to undermine the health and social fabric of First Nations communities. The findings underscore the urgent need for comprehensive strategies to address racism at all levels, from individual attitudes and behaviours to institutional policies and societal norms. By privileging the voices and experiences of First Nations peoples, this research contributes to a deeper understanding of the complex intersections between racism and wellbeing and provides critical insights to guide future research, policies, and programs aimed at promoting equity and social justice in Australia.

Putting Yolŋu action research about wellbeing into practice: a path to self-determination

Dr Emma Haynes[1], Minitja Marawili[3], Rena Dhamarrandji[3], Dr Alice Mitchell[2]
[1]University Of Western Australia, , Australia, [2]Community Innovations for Health, Darwin, Australia, [3]Laynhapuy Homelands, Baniyala Community, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Context and aim: The Yolŋu (Aboriginal people of North-East Arnhem) continue to struggle with culturally inappropriate and potentially retraumatising encounters within the health system. This includes messaging that can provoke anxiety , is deficit-focused, disempowering and created without local input. An action research project initiated by Yolŋu leaders who observed the negative impacts of Covid messaging, is creating accessible, shareable resources used to generate actions to build marrparaŋ (a Yolŋu wellbeing-aligned concept), including within the local health service. We report here on the first stages of a developmental evaluation.

Methods: evaluation measures are devised by Yolŋu co-researchers; as resources are being designed and implemented, the conversations also include hoped for outcomes.. Data collection includes: facilitators' participant observations, researcher discussions , and surveys and focus groups conducted by local researchers. Data analysis is led by Yolŋu researchers and carried out iteratively.

Findings: Key concepts with the potential to shift communication about health issues and that have been implemented in practice by Yolŋu researchers include:

1. Marrparaŋ – there are multiple meanings relating to this concept that are being incorporated into local trauma-informed care resources and training.
2. Trauma, addiction, depression and anxiety – a mamuy (octopus) metaphor has been developed to build understanding, hope and strategies to overcome the 'grip' of what gets in the way of wellbeing.
3. The term risk causes fear and confusion – the project explores using language around signs and pathways.
4. Value of action research using Yolŋu research methods based in metaphors including hunting and weaving and 'sit, listen and observe' – fosters, trust, self-determination and community strengthening.

Translational outcomes: Translation of findings into practice is embedded in the project. Ongoing priorities are to share our learnings with Yolŋu researchers from other areas and to support other organisations in better aligning their services with (and advocating for) local wellbeing needs and aspirations. In the long-term we advocate for revised funding models to allow Aboriginal communities greater determination in the delivery of health services.

Public health, climate change, evolutionary medicine: new lenses for a complex world

A/professor Aditya Vyas[1], Dr Melandri Vlok[2], Professor Hallie Buckley[3]
[1]University Of Canberra, Bruce, Australia, [2]The University of Notre Dame, Sydney, Australia, [3]University of Otago, Dunedin, New Zealand

3B - Public health systems and transitioning environments, Golden Ballroom Centre, September 18, 2024, 11:00 AM - 12:30 PM

High value public health in a complex world requires a shift away from the reductionist lens. Current biomedically-driven interventions often overlook the upstream determinants of health, or at most emphasise one (biological, social, or environmental) factor at the expense of others. We propose that by considering the historical determinants – how we have evolved as a species via our interactions with the natural environment – we can reorient public health towards its fundamental intention of addressing the upstream ‘causes of the causes’.

Theoretical perspectives on health from evolutionary medicine, bioarchaeology, medical anthropology, and medical history are not typically considered to be within the usual scope of public health research and practice. We argue that these fields have tangible and pragmatic contributions to modern public health. For example, a 7000-year history of malaria is evident in the archaeological record of Southeast Asia, revealing patterns with prehistoric climate change of malarial endemicity in areas where these diseases are expected to become endemic in the next 30-50 years because of the climate crisis.

The translational potential of bringing the findings from evolutionary medicine research closer to public health has already been demonstrated. For example, we can model future tropical disease distribution (such as malaria) based on proxy indicators from the archaeological record. By studying historical climatic change together with bioarcheological findings, we can identify the past and likely future evolution of human diseases and their epidemiology.

Our approach provides a way to reorient public health towards its fundamental intentions by linking it more closely to the discipline of evolutionary medicine. By appreciating the historical determinants of health, we have a new lens through which the ‘causes of the causes’ and our relationship with the natural and built environment can be addressed and improved into the future.

Lessons Learned from Public Health Reviews of Congenital Syphilis Cases In WA

Mr Stephen Boccaletti[1], Dr Donna Mak[1], Ms Carolien Giele[1]
[1]WA Dept Of Health, Perth, Australia

5B - Health promotion and sustainability, Golden Ballroom Centre, September 19, 2024, 1:15 PM - 2:45 PM

Congenital syphilis (CS) infections can result in still births or babies with serious sequelae. CS is entirely preventable if pregnant people are tested for syphilis and treated appropriately. In WA, CS notifications increased from three cases in the 10-year period 2008 to 2017 to 18 cases in the 8-year period 2018 to 2023.

Public health reviews of every CS and 'near-miss' case (baby born to an infected mother who did NOT receive treatment more than 30 days before delivery and did not contract CS) commenced in 2019 to identify health system gaps/issues that could be addressed to prevent further cases.

Methods

We reviewed reports from 21 public health reviews covering 17 CS (12 live, 5 stillbirths) and four near-miss cases from 2019 to 2023. Qualitative thematic analysis identified common themes contributing to mother-to-child transmission of syphilis.

Results

CS and near-miss cases occurred in both regional (10 cases) and metropolitan (11 cases) areas and 14 of the infants were Aboriginal.

Characteristics that were over-represented in mothers who had a baby with CS or a near miss included: identifying as Aboriginal, residing in a remote area, experiencing homelessness, alcohol use, drug use and/or other complex social issues.

Lack of access to culturally safe antenatal care and comprehensive primary healthcare was a factor frequently contributing to delayed diagnosis and treatment of syphilis in pregnancy resulting in CS in the infant. Lack of awareness of the ongoing syphilis outbreak and the importance of syphilis testing in pregnancy among health care staff contributed to only a few cases, mostly before 2022.

Future actions

It is important to explore alternative and co-designed models of care involving Aboriginal women, other affected communities and key stakeholders

Conclusions

Prevention of CS requires the delivery of holistic, flexible, culturally safe antenatal care by adequately resourced, knowledgeable healthcare staff.

Syphilis Point-of-Care Testing across WA

Mr Stephen Boccaletti[1], Mr Matthew Bacon[1], Ms Teneille Wisby[1], Dr Donna Mak[1], Ms Kellie Mitchell[1]
[1]WA Dept Of Health, Perth, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Background
WA-Health's Syphilis Point-of-Care (PoC) testing program, established in July 2020 by WA Health's Communicable Disease Control Directorate (CDCD), funds WA health services to conduct syphilis PoC testing. The program comprises a quality framework, training and PoC testing materials. CDCD conducted a mixed methods process and impact evaluation of the WA syphilis PoC testing program.

Methods
Data analysed included those routinely reported by all 31 services that participated in the program from its establishment to the evaluation period (September 2022), and responses to a survey distributed to all 21 enrolled services in November 2022. The survey included questions about PoC test usage, benefits, barriers, and enablers. Responses were analysed using thematic analysis. Service performance was assessed on proportion of tests used for patient testing and time from service's enrolment to first patient test.

Results
During the evaluation period, 13,700 PoC tests were distributed, 2156 (15%) were used for patient testing, and there were 119 reactive results. Eleven services (52%), responded to the survey. Thematic analysis identified seven themes: testing target populations; immediate results; extra work; embedding PoC testing into service delivery; staff champions; and capability to test. Top performing services commenced patient testing within two months of enrolling and used 51% of tests for patient testing, compared to poorer performing services that, used on average 14% of tests for patient testing and took up to 18 months to patient test. Staff champions and embedding PoC testing in routine processes enabled sustainable PoC testing.

Conclusions
Evaluation results indicated that some program requirements did not add value and reduced patient testing. To address these inefficiencies, CDCD is reforming quality control requirements, facilitating strategies for embedding syphilis PoC testing into service delivery, and expanding options for staff training and funding of test strips/reagents.

Modelling the potential health benefits of improving diets in Indigenous populations

Dr Phuong Nguyen[1,2,3], Dr Jennifer Browne[2,3], Mr Troy Walker[3,4], Dr Karen Hill[2,3], Dr Nic Lister[2,3], Dr Jaithri Ananthapavan[1,2,3]
[1]Deakin Health Economics, School of Health & Social Development, Faculty of Health, Geelong, Australia, [2]Institute for Health Transformation, Deakin University, Geelong, Australia, [3]Global Centre for Preventive Health and Nutrition, Deakin University, Geelong, Australia, [4]Monash Medicine Nursing and Health Sciences, Monash Univiersity, Melbourne, Australia

1A - Focus on Indigenous self-determination and leadership, Golden Ballroom North, September 17, 2024, 1:30 PM - 3:00 PM

Background : Despite growth of economic evaluations in public health literature, economic evidence estimating the impact of obesity prevention measures in Indigenous populations is lacking. This research aimed to modify a well-established economic model for the Australian population (ACE-Obesity Policy) using epidemiological inputs that better reflect the prevalence of risk factors and disease outcomes experienced by Indigenous Australians living in both remote and non-remote settings. It estimates the potential lifetime health benefits of improving nutrition in the Australian Indigenous population.

Methods: The IndigenACE model simulates the 2019 Indigenous population and estimates the incidence, prevalence, and mortality of nine diet-related diseases (type 2 diabetes, stroke, ischemic heart disease, osteoarthritis, endometrial, breast, kidney, and colorectal cancer). Key modifications to the model inputs included mean body mass index in the Indigenous population from the Australian National Health Survey 2017-2018 and healthcare cost data from the Australian Institute of Health and Welfare (2015) , adjusted for the Indigenous population. Scenario analyses estimated the potential change in disease incidence resulting from changes in sugary drink, and fruit and vegetable consumption. This, results in improvements in long-term health outcomes (Health-adjusted life years (HALYs)) and healthcare cost-savings.

Results: If policies were implemented that enabled all Indigenous adults to consume fruit and vegetables at recommended levels, approximately 520 HALYs would be gained with healthcare cost savings of approximately $12 million for the remote population, and 1,830 HALYs and $41 million cost savings for the non-remote population. If policy change produced a 10% reduction in sugary drinks consumption, approximately 849 HALYs would be gained with healthcare cost savings of approximately $19 million for the remote population and 7,212 HALYs gained with $156 million in cost savings for the non-remote population.

Conclusions: Policies to improve nutrition would result in significant health benefits for the Indigenous population, both in remote and non-remote areas. These estimates can aid decision-makers in prioritizing and investing in preventative public health policies and health promotion initiatives.

Community listening to identify healthy eating determinants in a priority Australian community

Mrs Shanti Kadariya[1], Professor Joy Parkinson[3], Mrs Julie Marsh[1], Professor Lauren Ball[1,2]
[1]University Of Queensland, Brisbane, Australia, [2]Griffith University, Nathan Campus, Brisbane, Australia, [3]Australian Catholic University, Banyo, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

Context: Unhealthy dietary behaviour is associated with several adverse health outcomes. However, individual dietary choices don't solely rely on the eating habits of individuals but are influenced by multiple factors including access to and affordability of healthy food options in the community where they live.

Aim: This study aimed to identify the social determinants of dietary behaviours at a priority community in Australia.

Methods: We utilised community listening (a component of community organising) to explore community members' narratives and experiences about the factors shaping their dietary behaviour in a low socioeconomic, multiethnic community of Inala located in Southwest Brisbane of QLD, Australia. We listened to the voices of community members, health professionals, social workers, teachers, and community service providers. Consultation sessions and field notes were analysed using thematic analysis. The determinants of dietary behaviour resulting from the analysis were categorised under the lens of the Socioecological model.

Findings: 168 participants shared their stories through the project. They identified personal interest in healthy eating, knowledge of healthy food and preparation; and time constraints for healthy food preparation as individual-level (microsystem) determinants of dietary behaviour. Family support, parental influence, and commitments were identified as social-environment level (mesosystem) determinants. Availability of fresh fruits and vegetables, backyard farming and ubiquity of fast-food outlets were identified as physical-environment (exo-system) determinants; and cost of living, inculturation and dissatisfaction with health practitioners as policy level (macrosystem) determinants.

Future actions: We learnt that dietary behaviours in priority communities are influenced by several micro, meso and macro determinants. Future community-based initiatives aimed at promoting healthy eating should therefore extend beyond individual behavioural change initiatives and consider the influence of other socioecological factors. Community-focused approaches informed by the understanding of local (contextual) social determinants of health can be useful in addressing those factors and contributing towards healthy eating in priority communities.

GAME On! A gap analysis of evidence for men’s health in Australia

Dr Jacquie McGraw[1], Dr Alice Campbell[1], Dr Natalie Thomas[1], Ms Sophie Austerberry[1], Ms Danielle Taylor[1], Mr Dave Porter[2], Miss Elizabeth Hitches[1], Ms Elizabeth Kennedy[1], Doctor Mark Robinson[1]
[1]The University Of Queensland, Indooroopilly, Australia, [2]Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts, Brisbane, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Australia is recognised as an international leader in men’s health. However, life expectancy for men is lower than that for women, many deaths are due to preventable causes, and certain priority population groups experience a higher burden of adverse health outcomes. Following the release of the National Male Health Policy (2010), the Australian Government released the National Men’s Health Strategy 2020-2030 (NMHS) to set out a framework for action to ensure every boy and man in Australia is supported to live a long, fulfilling, and healthy life. One of the key actions of the NMHS is to undertake a gap analysis of existing men’s health-related research, policies and strategies, program evaluations, and datasets in Australia. Until now, the evidence for the health and wellbeing of men and boys had not been identified and assessed.

The Gap Analysis of Evidence for Male Health (GAME), commissioned by the Australian Government, is an extensive review of men’s health policy, data, and best practice evidence in Australia since 2010. The project encompassed reviews of datasets, policies across all jurisdictions, and a best practice review of academic and grey literature. The project team were tasked with identifying existing evidence on male health in Australia and providing recommendations for future research and strategies for improving the health and wellbeing of Australian men and boys.

We reviewed 21,552 academic studies, 3079 grey literature reports, 108 datasets, and 592 policies and strategies for men’s health in Australia. We analysed existing evidence for the specific priority population groups and key health issues identified in the NMHS.

Specific findings are still to be released, but we found that gaps exist across all sources of evidence for specific male population groups and priority health issues.

Our recommendations will help inform future policy, funding, and research directions for men’s health in Australia.

What gets measured gets done - an evaluation framework for cross-sector collaboration

Mrs Sue-Ellen Morphett[1]
[1]Healthway, Subiaco, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

What is the issue that requires public health action?
Healthway, is a WA Government statutory body that works across sectors to achieve health outcomes. Measuring outcomes from cross-sector collaboration is essential to demonstrate the effectiveness of interventions. It supports data-driven decision-making, continuous improvement and adaptation to evolving needs, ensuring resources are allocated efficiently.

What have we learned to address this issue?
Over the last two years, Healthway has worked with the University of Western Australia to develop an Evaluation Framework to demonstrate the impact of Healthway's cross-sector investment. The Framework consists of four overarching pillars "Activity", "Knowledge Attitude Behaviour", "Organisational" and "Sustainability" that map broadly onto the outcomes being sought through these collaborations. Within the pillars there are 13 discrete elements which enable rigorous evaluation activity that documents both the delivery and impact of funded projects. The Framework allows evaluation of each project in isolation, but also serves to amass information about performance of partnerships when considered together in groups e.g. all sports, or all arts, or across the community as a whole.

How has this been used in practice?
The Framework provides a practical and manageable approach to evaluation for organisations with limited capability and time, and also caters for a wide range of projects. It guides organisations to set common partnership objectives and following project delivery enables organisations to measure and then reflect on overall project success.

What actions should we take in the future to address the issue?
Clear evidence of impact justifies funding and facilitates the replication and scaling of successful models, informing policy development. Engaging and empowering communities through measurable results enhances their involvement and ownership of health initiatives. Additionally, understanding outcomes provides comprehensive insights into the interconnected contributions of various sectors, fostering a more integrated approach to public health.

WA Model for Violence Prevention Pilot Study

Ms Samantha Carey[1,2], Mrs Helen Hamersley[1,2], Ms Candice Anstey[1,2], Mr Jonathon Burcham[1,2], Professor Daniel Fatovich[1,2,3]
[1]Royal Perth Hospital, Perth, Australia, [2]Centre for Clinical Research in Emergency Medicine, Perth, Australia, [3]Harry Perkins Institute of Medical Research, Perth, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim: Alcohol-related harm, requiring presentation to an emergency department (ED), is a significant burden. The Mental Health Commission (MHC) has partnered with East Metropolitan Health Service (EMHS) and Royal Perth Hospital Emergency Department (RPH ED) to pilot the Western Australian Model for Violence Prevention (WA MVP) project. The WA MVP aims to develop a violence prevention model to reduce alcohol related presentations (ARPs) to RPH ED and impact on community safety. We present preliminary data for the first six months and discuss translational outcomes and future directions.

Methods and analysis: ARPs in patients aged ≥16 years were identified using a survey tool at triage or retrospective medical record review. Between October 2023 and March 2024, 4323 (11%) of 39,546 presentations to RPH ED were ARPs. The median age was 39 (range 16–96 years) and two-thirds were male (n=2896, 66%). The most common triage score was 3 (n=1916, 42%). The median ED length of stay was 4.6 hours. The highest proportion of ARPs by day of the week was Saturday (21%) and hour of the day was 0100-0159 (24%). The three most frequent diagnoses were injury (n=1132, 26%), alcohol intoxication (n=658, 15%) and psychiatric (n=327, 7%).

Translational outcomes: Working collaboratively with the MHC, EMHS and other key stakeholders including the Western Australian Police, St John Ambulance, lived experience representatives and Aboriginal Health Liaison Officers, we will have a localised understanding of alcohol-related harm to inform targeted community-based interventions. This includes a collaborative effort to map alcohol purchase and incident ‘hotspot’ locations

Future actions: Addressing this complex issue will require a harm minimisation approach, including public health messaging and education. Systemic responses that address the causes of alcohol related violence are vital to reduce alcohol related harm and improve community safety.

Factor associated with unmet needs among people with non-communicable diseases in China

Dr Lu Yang[1]

[1]Baker Heart And Diabetes Institute, Melbourne, Australia, [2]Nanjing University of Posts and Telecommunications, Nanjing, China, [3]La Trobe University , Melbourne, Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Context and aim

Non-communicable diseases (NCDs) are prominent public health challenges globally. Little is known about the unmet healthcare needs among those with NCDs. This research examined the factors associated with unmet health services needs among people with chronic diseases in China.

Methods and analysis

In this population-based, panel data analysis, we used data from three waves of the nationally representative China Health and Retirement Longitudinal Study (CHARLS) from 2013 to 2020. The sample of this study included 8,106 adults aged 45 years and older, with more than one type of NCDs who had completed follow-up for the 2013, 2015 and 2020 waves. Unmet healthcare needs were measured by the question “In the past year, did a doctor suggest that you needed inpatient care, but you did not get hospitalised?” Answers to this question were coded as a binary variable (0 =no, 1 =yes). The factors associated with unmet needs were assessed using mixed-effects logistic regression models.

Research findings

The prevalence of unmet healthcare needs in China was increased from 7.4% to 12.6% from 2013 to 2020. Adjusting for socioeconomic, behavioral factors, as well as area of residence, people having more than three types of NCDs (95%CI: 2.09, 2.83), who were satisfied with their lives (95%CI: 0.54, 0.70), and people with poorer self-rated health status (95%CI: 3.18, 4.90) were more likely to have unmet healthcare needs.

Transitional outcome and future actions

The findings from this research suggested targeted interventions to support people at higher risk of unmet healthcare needs. For example, healthcare providers can prioritise patients with multiple NCDs and low life satisfaction for more comprehensive care and follow-up. Additionally, public health campaigns can focus on improving life satisfaction and overall well-being as part of a holistic approach to managing NCDs.

The value of incorporating Indigenous knowledge systems in Public Health Research

Ms Kynesha Temple[1], Ms Kelli Owen[1,2], Ms Rhanee Lester[1], Ms Nari Sinclair[1]
[1]Flinders University, Eden Hills, Australia, [2]Public Health Association of Australia, Deakin, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

Context and Aim: The research project AKction incorporates Indigenous cultural practices and lived experience to improve the outcomes of CKD. It does so by privileging the lived experience of Aboriginal people in renal health care by employing researchers from this background. As Chief Investigators on the project, Kelli, Rhanee and Nari, all kidney care patients and advocates, have played leadership roles where their knowledge is valued and respected. Kynesha, a young Aboriginal woman, supported them in this process. This presentation will highlight the importance of connecting to culture by learning language, keeping spirit strong through holistic approaches, and embedding culturally safe practices. It will also argue for the value of those with lived experience playing central roles in the research.

Research findings, translational outcomes: Nari highlighted the significance of passing down the Ngarrindjeri language, which contributes to a rich cultural heritage and a promising future for Mob. She played a critical role in advocating for healthcare improvements, such as ensuring the availability of dialysis chairs in the Aboriginal-run Kanggawodli hostel in South Australia. This effort has made dialysis treatment more accessible and culturally appropriate for Indigenous patients.
Rhanee emphasizes the complex interplay between mental, physical, spiritual, and emotional health. She emphasies that spiritual strength is deeply connected to environmental factors and social interactions within one's culture and community utilising Ganma by intertwining knowledge systems. As a peer navigator and chief investigator, Rhanee advocates for the inclusion of lived experience perspectives in renal health research and practices. Her work supports patients at the early stages of CKD, guiding them through the healthcare system. Kelli underscored the benefits of engaging with cultural practices, such as language, connecting with community Elders and practicing Dadirri. Kelli, as head of the National Kidney Transplantation Taskforce (NIKTT), has focused on collecting and analysing data on Indigenous CKD patients and reducing wait times for kidney transplants. Her leadership has been pivotal in identifying gaps and fostering improvements in healthcare delivery. Kynesha brought her understanding of structure and systems that meaningfully support those with Lived Experience to contribute. Kynesha has incorporated existing evidence regarding lived experience, intertwined with the outcomes of AKction to collective evidence of the value of those with lived experience playing an active role in research rather than simply consultative.

Future Actions: This collaborative approach fosters co-creation and benefits both healthcare providers and patients. It ensures that Indigenous voices play a critical role in shaping policies and programs that enhance health outcomes for Indigenous communities. To address the complexities, there must be more diversity to improve research methodologies by having Indigenous researchers shape policy and research. Indigenous decision-makers hold a critical role in shaping policies and programs that can benefit Indigenous communities and health outcomes.

Understanding the health of refugees in Australia using linked data

Ms Nikki Harvey[1]
[1]AIHW, Bruce, Australia

2D - Healthcare Challenges and Outcomes Across Diverse Populations, Golden Ballroom North, September 18, 2024, 9:00 AM - 10:30 AM

Refugees and Humanitarian entrants have unique experiences which may impact their health and wellbeing. However, there is limited data on health outcomes in this population. Using linked data to identify refugee and humanitarian entrants in health datasets provides a better picture of the health of this vulnerable and diverse population.

The settlement database, which contains visa information for all permanent migrants who arrived in Australia from 2000, was linked to health datasets via the Australian Bureau of Statistics (ABS) Person Level Integrated Data Asset (PLIDA) and a novel linked data set created by the AIHW.

Extensive analyses of these data identified particular health issues and disparities in the refugee and humanitarian entrant population in comparison with other permanent migrants and the rest of the Australian population.

After adjusting for age, humanitarian entrants had 80% higher rates of self-reported diabetes and kidney disease. Humanitarian entrants were 2.4 times more likely to die from accidental drowning and 1.5 times more likely to die from liver cancer. Humanitarian entrants have higher rates of emergency department (ED) presentations compared with other permanent migrants and are more likely to arrive at an ED via ambulance.

The information garnered from these linked data analyses is vital to help inform health service planning and settlement policies to support targeted interventions. For example, the identification of high levels of kidney disease and diabetes in this population could help raise clinicians’ and policy makers’ awareness of these issues and help inform potential responses. Additionally, the findings support considering certain health promotion and early intervention strategies ranging from water awareness and swimming lessons to translation services for ambulance officers and ambulance dispatchers.

Further research into subgroups within this population such as country of origin, ethnicity or time spent in Australia could further support understanding of the drivers of health outcomes in this diverse population and help target service planning and policy.

“He Huarahi Tautoko”: An Indigenous intergenerational model of wellbeing.

Associate Professor Bevan Erueti[1]

[1]School of Health Sciences, College of Health, Massey University, Palmerston North, New Zealand

5A - Cultural Competence in Healthcare and Public Health, Golden Ballroom North, September 19, 2024, 1:15 PM - 2:45 PM

As a dynamic and unified concept of health, Māori (Indigenous people of Aotearoa NZ) entities and organisations are embarking on strengths-based approaches to influence and impact human health across the lifespan. This project encouraged the improvement of physical wellbeing through culturally responsive modes of activity among kaumātua (Māori elders) while also enhancing holistic methods of wellbeing through intentional intergenerational cultural knowledge exchange opportunities. This presentation gives an insight into one specific service provider Turanga Health, Gisborne, New Zealand highlighting the success they experienced throughout this project.

The project is grounded in Kaupapa Māori and participatory research that involved a partnership of six Māori social-health service providers and university researchers from four universities in Aotearoa New Zealand. The project prioritises a te ao Māori/Māori worldview and epistemology and uses mātauranga Māori/Māori knowledge systems to establish how the differing activities were experienced by kaumātua and the kaumātua service providers. The study findings include key correlates of five wellbeing indicators grounded in the Te Whare Tapa Whā model: sense of purpose, social support and relationship quality, exercise frequency, and proficiency with Māori cultural practices.

The engagement process of the He Huarahi Tautoko programme demonstrates that when a project centres the needs and aspirations of kaumātua and kaumātua service providers key aspects of health, wellbeing, physical function, and culture important for kaumātua can be realised. By providing activities that fostered and encouraged a symbiotic method of culturally responsive physical activity coupled with cultural knowledge exchange assisted in wellbeing beyond the physical while ameliorating some of the negative harms created from our colonial history.

This current study illustrates key issues for kaumātua wellbeing. Most certainly, physical activity was a core component of this project, but a significant factor was the cultural integration prescribed by kaumātua themselves. By integrating te reo Māori (Māori language), tikanga (traditional practices) and mātauranga Māori (Māori knowledge) kaumātua experienced a reduction of social isolation, cultural dissonance, disruption of intergenerational transference of knowledge, and language loss which, ultimately, will benefit and lead to healthier outcomes for kaumātua.

Strengthening Australia's preparedness for emerging drug threats: state and national toxicosurveillance systems

Dr Jennifer Smith[1,2], Associate Professor Shaun Greene[3,4], Dr Jared Brown[5,6], Professor Nadine Ezard[7,8,9], Associate Professor Katherine Isoardi[10,11,12], Dr Courtney Weber[1,2], Dr Jessamine Soderstrom[13], Professor Daniel Fatovich[1,2,13], Mr Paul Sakrajda[14], Associate Professor Jennifer Schumann[15,16,17], Ms Rebekka Syrjanen[3,15,16], Associate Professor Sam Alfred[18], Professor Andrew Dawson[5,19], Mr Andrew Griffiths[20], Associate Professor Viet Tran[21,22], Mr Craig Gardner[23], Mr Peter Stockham[24]

[1]Centre for Clinical Research in Emergency Medicine, Harry Perkins Institute of Medical Research, Perth, Australia, [2]East Metropolitan Health Service, Perth, Australia, [3] Austin Health, Victorian Poisons Information Centre and Emergency Department, Austin Hospital, , Melbourne, Australia, [4]The University of Melbourne, Melbourne Medical School, Department of Critical Care, Melbourne, Australia, [5]NSW Poisons Information Centre, Sydney Children's Hospitals Network, Sydney, Australia, [6]Centre for Alcohol and Other Drugs, NSW Ministry of Health, Sydney, Australia, [7]National Centre for Clinical Research on Emerging Drugs (NCCRED), University of New South Wales, Sydney, Australia, [8]Alcohol and Drug Service, St Vincent's Hospital Sydney, Sydney, Australia, [9]National Drug and Alcohol Research Centre (NDARC), University of New South Wales, Sydney, Australia, [10]Clinical Toxicology Unit, Princess Alexandra Hospital, Brisbane, Australia, [11]Queensland Poisons Information Centre, Queensland Children's Hospital, Brisbane, Australia, [12]Faculty of Medicine, University of Queensland, Brisbane, Australia, [13]Emergency Medicine, Royal Perth Hospital, University of Western Australia, Perth, Australia, [14]ChemCentre, Perth, Australia, [15] Victorian Institute of Forensic Medicine, Melbourne, Australia, [16] Department of Forensic Medicine, Monash University, Melbourne, Australia, [17]Monash Addiction Research Centre, Melbourne, Australia, [18]Emergency Department, Royal Adelaide Hospital, Adelaide, Australia, [19]Central Clinical School, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia, [20]Forensic and Scientific Services, Brisbane, Australia, [21]School of Medicine, University of Tasmania, Hobart, Australia, [22]Department of Emergency Medicine, Royal Hobart Hospital, Hobart, Australia, [23]Forensic Science Service Tasmania, Hobart, Australia, [24]Forensic Science South Australia, Adelaide, Australia

5D - Prioritising public health strategies in Australia, Hamersley, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim
Comprehensive toxicology testing of emergency department (ED) presentations has become a prominent data source on emerging drug-related threats in Australia. We review three state and national toxicosurveillance systems and their contribution to drug intelligence and harm reduction responses in Australia and internationally.

Methods and analysis
The Emerging Drugs Network of Australia (EDNA), the New South Wales Prescription, Recreational and Illicit Substance Evaluation program (PRISE) and the EDNA-Victoria study (EDNAV) conduct comprehensive toxicology screening of blood samples from eligible ED presentations. Collectively, these initiatives detected a total of 1,120 NPS across 716 ED presentations in Australia between 2022-2023.

Translational outcomes
Public health translation and impact from EDNA, EDNAV and PRISE include:
1. Evidence-informed responses: clinical and toxicological evidence have directly informed rapid, locally appropriate drug alerts released by state government health authorities; e.g. laboratory-confirmed evidence of severe harms caused by novel opioid exposure prompted public drug alerts in multiple jurisdictions.

2. Within and across jurisdictional collaboration: data confirming a national cluster of acute thebaine poisonings from non-food grade poppy seeds entering the food supply chain resulted in a national recall of contaminated products by Food Standards Australia New Zealand.
3. Partnerships & information sharing: collaboration with national information sharing networks such as the Prompt Response Network has enabled rapid dissemination of drug intelligence data with government departments, consumers, harm reduction services and other key stakeholders. Formal partnership with the United Nations Office on Drugs and Crime has also enabled Australia’s contribution of NPS detections from ED presentations to their global surveillance network for the first time.

Future actions
Embedding multi-agency toxicosurveillance systems within and across jurisdictions into Australia’s strategic approach to reduce drug-related harms is critical. There are few other reliable signal sources able to accurately identify new and emerging NPS in such a timely manner.

Pre-existing mental disorder and mortality among people with traumatic spinal injury

A/Prof Jesse Young[1,2,3,4], Mr Alexander Campbell[1,3], Dr Craig Cumming[4], Prof Ashley Craig[5,6], Dr Lisa Sharwood[5,7]

[1]The University of Melbourne, Melbourne, Australia, [2]University of Toronto, Toronto, Canada, [3]Murdoch Childrens Research Institute, Melbourne, Australia, [4]The University of Western Australia, Perth, Australia, [5]Royal North Shore Hospital, St Leonards, Australia, [6]University of Sydney, Sydney, Australia, [7]University of New South Wales, Sydney, Australia

5D - Prioritising public health strategies in Australia, Hamersley, September 19, 2024, 1:15 PM - 2:45 PM

Context and aim

The impact of pre-existing mental disorders on mortality following traumatic spinal injury (TSI) is unknown. We evaluated mortality rates by pre-existing mental disorder, compared to the general population, and stratified by age at injury. Mental disorder included mental illness (MI), substance use disorder (SUD) or dual diagnosis (MI+SUD).

Methods and research findings

Using a data linkage cohort study design, individuals with acute TSI were identified from hospital records in NSW, Australia, linked with ambulance and emergency department records from June 2013- June 2016 inclusive. Death records were linked to 31st December 2018.We calculated all-cause and cause-specific crude mortality rates, age- and sex-adjusted standardised mortality ratios (SMR), modelling the association between pre-existing mental disorder and mortality by fitting flexible parametric survival models, age stratified (16-64/≥65 years old). 23·1% of the cohort had MI only, 5·5% had SUD only, 4·6% had dual diagnosis. The crude mortality rate was 84·1 (95%CI: 81·8-86·5) deaths/ 1000 person-years. Compared to the general population, those 16-64 years old with dual diagnosis (SMR=17·6; 95%CI: 14·1-21·9), SUD only (SMR=9·2; 95%CI: 7·3-11·7), and MI only (SMR=4·4; 95%CI: 3·3-5·8) had markedly elevated mortality. Compared to study individuals without mental disorder, all mental disorder groups showed increased risk of mortality after TSI, except the MI only group in the younger age stratum.

Translational outcomes

Ascertaining pre-existing mental disorders in patients with TSI is crucial to reduce the risk of mortality, particularly for individuals aged 16-64 years.

Future actions

Integration of TSI treatment and rehabilitation services with mental healthcare and addiction medicine is likely critical for reducing health disparities after TSI for people with pre-existing mental disorders.

Communicating across disciplines to foster inclusivity through design of public places.

Ms Martina Hale[1]
[1]School of Architecture and Built Environment, QUT, Brisbane, Australia

2A - Conversation Starters, Hamersley, September 18, 2024, 9:00 AM - 10:30 AM

The majority of people living with dementia in Australia are living in the community and inappropriately designed public places put them, and their care partners, at risk of social isolation, with the consequent negative health impacts.

To understand the experience of people living with dementia when they visit their favourite public places, and the physical, social, societal and temporal influences on that experience, Constructivist Grounded Theory was used to explore the experience of the person living with dementia, those who support them, and those who influence the design of public places. Simple spatial analysis was used to identify the physical and social qualities of the favourite public place, and other places referred to, or visited with people living with dementia.

In taking a strengths-based, wholistic relational approach this research has highlighted the importance of communication between disciplines, sectors of the built environment and end-users, in assisting designers of the built environment to create public places that foster opportunities for inclusion. This research also revealed that there is a disconnect between discussions of inclusivity in health and the social sciences and those in the design disciplines of the built environment.

This brief presentation aims to start a conversation about different ways of knowing, and the contribution of relationships, time and awareness in improving communication and knowledge sharing between the diverse parties interested in improving inclusivity in the built environment.

Aboriginal Women’s Healthcare Access in Far West South Australia.

A/Prof Jacqueline Stephens[1], Shanti Omodei-James[1], Lisa Nolan[1], Jessie Sleep[2], A/Prof Courtney Ryder[1]
[1]Flinders University, Bedford Park, Australia, [2]Far West Community Partnerships, Ceduna, Australia

1A - Focus on Indigenous self-determination and leadership, Golden Ballroom North, September 17, 2024, 1:30 PM - 3:00 PM

Context and Aim

Access to women’s health services across the Far West Coast of South Australia was identified by local Community Leaders as complex. In partnership and guided by Aboriginal women’s holistic relational views of health, we conducted the first strengths-based qualitative study of the experiences of Aboriginal women living across the Far West Coast of South Australia in navigating and conceptualising their health and wellbeing.

Methods and Analysis

Eight Indigenous yarning and Dadirri sessions were held across Yalata, Maralinga, Oak Valley, and Ceduna between August 2022 and August 2023. Twentynine Aboriginal women exchanged knowledge as co-researchers; with each session audio-recorded, transcribed and deidentified. An iterative thematic analysis was underpinned by an Indigenous Knowledge framework of Aboriginal ways of knowing, being and doing.

Translational Outcomes

The lived experiences of navigating women’s health and healthcare by Aboriginal women across the Far West has been translated by a local Aboriginal female artist into an artwork in a culturally appropriate and translational form. These lived experiences can be described in a Western academic approach as three multifaceted themes. Firstly, Healthcare Access issues were logistical and physical access issues, and access to appropriate care. Second, self-determination at the individual, community, and systemic level was required. Finally, Far West Aboriginal women’s conceptualisation of health and wellbeing was not aligned to the clinical Western medical model, instead being holistic and focused on family, the socio-cultural determinants of health, and mental health.

What actions should we take in the future?

Aboriginal women across the Far West of South Australia have clear, strong understandings of their own health and that of their families and Community. Better access options and incorporation of Aboriginal women’s ways of knowing, being and doing women’s health business must be prioritised across the Far West Region.

Aboriginal Partnership

This project has been undertaken in partnership with Far West Community Partnerships, with ongoing guidance from the Ceduna Nanas Group on the research direction and outcomes. The findings have been shared with health organisations across the region. The authorship team includes Aboriginal women, including those who are Community Leaders.

Narratives of Wellbeing and Racism: The Dual Reality for First Nations Peoples

Ms Khwanruethai Ngampromwongse[1]
[1]The University Of Queensland, Herston, Australia

3A - Racism in Health and Decolonisation of the System, Golden Ballroom North, September 18, 2024, 11:00 AM - 12:30 PM

Background: Widespread racism is an enduring legacy of colonisation and is deeply entrenched in Australian society, systems, and structures. Despite extensive documentation of experiences of racism by First Nations peoples, the ongoing impacts of racism, in all its forms, on the wellbeing of First Nations peoples has received limited attention. Drawing upon narratives from a national qualitative study focusing on the positive aspects of wellbeing, the research illuminates how participants spontaneously disclosed experiences of racism as integral components of their life stories.

Aims: This study aimed to qualitatively explore the complex pathways through which racism is impacting on the wellbeing of First Nations adults.

Methods: First Nations adults were recruited from around Australia to participate in Yarning Circles led by First Nations facilitators about wellbeing. A First Nations-led secondary reflexive thematic analysis was conducted to describe the pathways through which racism impacts on wellbeing.

Results: 359 First Nations adults participated in one of 45 Yarning Circles or six Individual Yarns. Our analysis revealed the following seven pathways through which racism impacts the lives of First Nations adults: threatening cultural survival; undermining kinship systems; denigrating First Nations systems of power and justice; battling stereotypes; harming mental health; undermining identity, and pride; and challenging the right to self-determination and sovereignty.

Conclusion: Our findings highlight the wide-ranging and complex pathways through which racism impacts First Nations adults’ wellbeing and add to mounting calls for urgent action to eradicate racism, in all its forms, in Australia.

This research highlights the deeply entrenched nature of racism in Australian society, rooted in colonial history and ongoing structural inequities. Despite efforts to promote wellbeing and resilience, racism continues to undermine the health and social fabric of First Nations communities. The findings underscore the urgent need for comprehensive strategies to address racism at all levels, from individual attitudes and behaviours to institutional policies and societal norms. By privileging the voices and experiences of First Nations peoples, this research contributes to a deeper understanding of the complex intersections between racism and wellbeing and provides critical insights to guide future research, policies, and programs aimed at promoting equity and social justice in Australia.

Exploring healthcare access challenges among South Asian migrants in Australia: Mixed-method study

Dr. Mehwish Nisar[1], Dr Nathalia Costa[1], Associate Professor Asaduzzaman Khan[1]
[1]The university of Queensland, Brisbane, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Aim: Healthcare access disparities, particularly among migrant populations, represent an escalating issue. This research focuses on addressing healthcare access disparities in the rapidly growing South Asian communities in Australia, which bear a disproportionate burden of chronic diseases. The primary objective of this study was to analyse the healthcare access and utilisation patterns among Australia's South Asian migrants.

Methods: The study used a mixed-method approach, including five focus group discussions (FGDs) and an online survey (460 respondents).

Research findings:

Thematic analysis of FGDs found factors influencing healthcare service utilisation among migrants, including a preference for home remedies over doctor consultations, language barriers, limited access to relevant information, high costs of specialist and dental care, dissatisfaction with rushed doctor interactions, practitioner's different ethnic background, and system-related concerns. One in six survey respondents encountered challenges in accessing healthcare when needed, with the most frequently reported barriers being prolonged waiting times (72%), out-of-pocket expenses (48%), and limited awareness and availability of services (36%).

Translational outcomes: Actionable steps, such as reducing waiting times and language barriers, improving awareness of available services and providing affordable specialist and dental services are imperative to enhance healthcare equity and ensure timely access for Australia's diverse population. Migrants should also seek proper information and understanding of the healthcare system to navigate the facilities more effectively for their overall well-being.

Future actions: South Asian migrants confront challenges of availability and affordability when seeking timely, patient-centred healthcare. A robust collaboration between healthcare providers and the community is essential for sustainable solutions.

Donating breastmilk: A qualitative meta-synthesis

Dr Linda Murray[1]
[1]Massey University, Island Bay, New Zealand

4B - Generating policy change through research: lessons learned, Golden Ballroom Centre, September 19, 2024, 11:00 AM - 12:30 PM

What is the problem?
Globally, the uptake of pasturised donor human milk use in hospitals for both healthy and vulnerable infants is hindered by shortages of safe and affordable donor human milk. Therefore, it is vital to understand what motivates women to donate their breast milk, and the aspects of their experience that are likely to aid or hinder donation.
What have we learned?
We conducted a meta-synthesis of the qualitative literature about women’s experiences of donating breastmilk, and identify gaps in current knowledge. This qualitative synthesis followed the meta-aggregation method for qualitative evidence synthesis outlined by the Joanna Briggs Institute and investigated three distinct questions: 1.) What are the experiences of lactating women donating milk after bereavement? 2.) What are the experiences of lactating women donating to a milk bank after a live birth? And 3.) What are the experiences of lactating women informally donating milk after a live birth?
How can this be used in practice?
The findings of this review will be useful for milk banking services seeking to recruit and retain donors, to assist health professionals to support the needs of their breast milk donors, and to understand experiences of informal donation.

Recommended Features of Monitoring Systems: Scoping Review

Associate Professor Nicole Nathan[1,2,3], Mr William Pascoe[1,2,3], Dr Cassandra Lane[1,2,3], Dr Alison Zucca[1,2,3], Ms Belinda Peden[1,2,3], Ms Carly Gardner[1,2,3], Dr Adam Shoesmith[1,2,3], Mr Edd Riley-Gibson[1,2,3], Professor Andrew Milat[4,5], Professor Luke Wolfenden[1,2,3]
[1]University Of Newcastle, Newcastle, Australia, [2]Hunter Medical Research Institute, Newcastle , Australia, [3]Hunter New England Population Health, Newcastle, Australia, [4]University of Sydney, Sydney, Australia, [5]Centre for Epidemiology and Evidence, Sydney, Australia

2C - Cross-Sector Collaboration: Strengthening Partnerships, Golden Ballroom South, September 18, 2024, 9:00 AM - 10:30 AM

What is the problem/issue that requires public health action?
The implementation and long-term sustainment of public health programs and policies are not being optimally monitored. This reduces the chance of successful implementation, successful long-term sustainment, optimal adaptation, and optimal spending and use of resources and finances. To counter this, programs and policies should implement monitoring systems that provide a structured cycle of collecting relevant implementation data and applying this data to make improvements to their programs and policies. Developing an effective monitoring system requires guidance regarding the features of what forms a monitoring system. However, to our knowledge, there is currently no collated review of the features of monitoring systems, subsequently hindering the ability to develop and implement effective monitoring for public health programs and policies. Consequently, we conducted a scoping review to identify the features of public health program and policy monitoring systems.

What do we know or have we learned to address this problem/issue, and how has this finding been derived?
The scoping review searched a variety of grey literature sources and academic journals. Data was taken from all sections of publications to derive features of public health program and policy monitoring systems in community settings. Quantitative data, including the unit of analysis, was extracted. Qualitative data concerning the features of monitoring systems was extracted and coded into four main categories: (1) Plan, prepare, and revise; (2) Monitoring activities (featuring data collection, synthesis, and dissemination); (3) System appraisal; and (4) Stakeholder engagement. For data synthesis, Best Fit Synthesis was employed, which involved deductively coding data against a pre-determined framework. Following this, inductive secondary thematic analysis was used to identify features and generate recommendations for future monitoring system development.

How has this been used in practice?
The results from this coding will inform the development of future monitoring systems for public health programs and policies in community settings. Furthermore, by providing guidance for implementing monitoring systems, we hope that the reporting of monitoring systems within studies improves so that effective adaptions of monitoring systems dependent on aim and context begin to emerge.

What actions should we take in the future to address the problem/issue?
Include and document monitoring systems used in public health initiatives and utilise the information this review provides. Implementing and testing the effectiveness of monitoring systems in different contexts will be the key to sustaining future public health initiatives and improving our understanding of monitoring systems.

Developing Fine Diversion Programs for people experiencing hardship in NSW

Ms Mirei Ballinger[1], Ms Sharon Bicknell[2]
[1]ThinkPlaceX, Surry Hills, Australia, [2]Revenue NSW, Sydney, Australia

4A - Conversation Starters, Hamersley, September 19, 2024, 11:00 AM - 12:30 PM

Problem

Fine debt has a disproportionate impact on people experiencing disadvantage, often entrenching hardship, and pushing them towards further contact with the justice system. Hardship can also prevent people from participating fully in society, often putting them in a position to compromise on health and safety to meet their day-to-day demands.

Following a successful proof of concept of the Child Car Restraint Diversion Program led by NSW Police and Revenue NSW, we sought to define the development framework for evidence-based diversion programs, and reduce the impact of fines on people experiencing hardship at an earlier intervention point.

Method

An analysis of fine debt in Bourke, Moree and Broken Hill was conducted, as well as a literature review identifying 36 fine diversion programs in Australia and internationally.

Results

The Child Car Restraint Diversion Program achieved 87% compliance, and realised safety benefits through this proof of concept. Additionally, the proof of concept resulted in $30,000 in avoided debt and 272 avoided demerit points.

The literature review discovered that there was no standardised method for developing diversion programs, and there was little to no research on the impact of fine diversions on behaviour change.

The research uncovered opportunities to divert people identified as vulnerable at an early fine accumulation stage (within 10 fines) to avoid perpetuating hardship and disadvantage.

Lessons

Finding empirical evidence to link hardship with the acquisition of fines is difficult, but developing diversions can lessen the impact of hardship. A higher proportion of individuals with <10 fines are being serviced by the NGO sector to resolve their fine debt, likely drawing resources from the more complex high need individuals who are resolving fine debt.

With little precedent of diversion programs targeting the impact of fines on vulnerable people, the research put forward an innovation approach to the fine diversion development framework.

235

One Mob One Job: service transformation for social change

Ms Mirei Ballinger[1]
[1]ThinkPlaceX, Surry Hills, Australia

4C - Innovative Strategies for Public Health, Golden Ballroom South, September 19, 2024, 11:00 AM - 12:30 PM

The issue
Research done by the NSW Department of Communities and Justice (DCJ) in 2022 uncovered over 8000 families who are deeply entrenched in DCJ systems, with extensive and frequent and interactions with justice and community services.
They are families who have intergenerational engagement and are entrenched within our systems. Starting from early interactions with the child protection system, there are recognised patterns of becoming young people leaving out-of-home care (OOHC) who are more likely to have contact with the juvenile and criminal justice systems, to require public housing and specialist healthcare as adults, and to have children who are placed in OOHC starting the cycle for the next generation.
DCJ recognised that by only working with individuals, with little visibility of needs and strengths of the wider family, this would only perpetuate the cycle of disadvantage for our most vulnerable families and communities across NSW.
Approach
One Mob One Job is a long-term service and system transformation that is Aboriginal-led, delivering a new and different model of service for these families. One Mob One Job has embedded Aboriginal ways of knowing, being and doing, with the understanding that Aboriginal ways are holistic, family-centred and address the social determinants of health and wellbeing for all individuals, families and communities. The transformation also prioritises place-based decision making, currently working in two locations with the view to expand to five locations by June 2025.
Early lessons
Early learnings from the transformation include the pervasiveness of the impacts of colonisation and systemic racism, the inherent resilience of communities, and most importantly, the need for truthhearing. The lessons from the transformation in the two locations point to a complete reversal of historical approaches from trying to fit communities to solutions, to building solutions to, and indeed from, communities.

Author Index – By Paper Number