



Public Health Association
AUSTRALIA



ABSTRACT BOOK

AUSTRALIAN PUBLIC HEALTH CONFERENCE 2020

**Public Health action: Response to
bushfires, climate and coronavirus**

Monday 19 to Friday 30 October 2020

Virtual Conference

#AustPH2020

PRINCIPAL SPONSOR



Australian Government
Department of Health

Contents

Monday 19 October 2020	3
1A – COVID-19: Aboriginal & Torres Strait Islander Health	3
1B – Bushfires and Heatwaves	5
1C – COVID-19: Health and Wellbeing	8
1D – Policy & Practice	11
Tuesday 20 October 2020	14
2A - Prevention	14
2B – Global Health, Sustainability and Climate Change	17
2C – COVID-19: Health and Wellbeing	21
2D – COVID-19: Screening and Contact	24
Wednesday 21 October 2020	27
P1 - E-Poster Presentations	27
Thursday 22 October 2020	30
3A – Rapid Fire – COVID-19 Public Health Action	30
3B – Rapid Fire – Planetary & Climate Health	33
3C – Rapid Fire – COVID-19: Public Health Action- Health & Wellbeing	36
Monday 26 October 2020	38
4A – Aboriginal and Torres Strait Islander Health	38
4B – Healthcare	40
4C – COVID-19: Lifestyle Impacts	43
Tuesday 27 October 2020	46
5A – Rapid Fire – COVID-19: Public Health Action	46
5B – Rapid Fire – Public Health Action – Mixed Bag	49
5C – Rapid Fire – COVID-19	52
Tuesday 27 October 2020	55
6A – COVID-19: Measuring	55
6B – COVID-19: Healthcare	58
6C – COVID-19: Lifestyle Impacts	61
Wednesday 28 October 2020	64
P2 - E-Poster Presentations	64
Workshops	67

Monday 19 October 2020

1A – COVID-19: Aboriginal & Torres Strait Islander Health

On Demand from 12:30pm AEDT

COVID-19 Updates and information keeping Aboriginal and Torres Strait Islander communities informed

Authors: Mrs Michelle Elwell¹

Affiliations: ¹*Australian Indigenous HealthinfoNet*

Abstract:

In March 2020, with the increasing number of Australians being impacted by the public health issue of the coronavirus COVID-19 pandemic, the Australian Indigenous HealthInfoNet (HealthInfoNet) recognised the need to establish a COVID-19 Updates and Information portal to ensure our website users were informed with timely, accessible and relevant health promotion and health practice information and resources as they became available for the Aboriginal and Torres Strait Islander community.

The HealthInfoNet team contacted the National Aboriginal Community Controlled Health Organisation (NACCHO) to ensure this COVID-19 portal would be beneficial for NACCHO member services and community members. It was agreed that this new portal would be a valuable resource in keeping the Aboriginal and Torres Strait Islander health workforce updated with the latest information and the community would benefit from resources on the portal. NACCHO members were encouraged to send resources as they were developed to the HealthInfoNet to review and add to the Portal. This call out was very helpful and a constant flow of information and resources was received.

When first established, the COVID-19 portal had a range of state and territory government information and NACCHO content, however, following the call out to NACCHO member organisations and HealthInfoNet partner organisations this soon grew to include resources from health organisations across Australia.

Today the COVID-19 portal has grown to house over 60 health practice and health promotion resources, including direct links to the COVIDSafe app, NACCHO daily updates, and state and territory government websites. This ensures health professionals and community alike are kept well informed about the COVID-19 pandemic wherever they work or reside in Australia.

The HealthInfoNet has for the past 22 years, provided support to those working in the Aboriginal and Torres Strait Islander health sector by making research and other knowledge readily accessible via its website <https://healthinfo.net.ecu.edu.au>.

Crowdsourcing for local language, video-based COVID-19 prevention messaging to remote Aboriginal communities

Authors: Michelle Dowden¹, Meg Scolyer¹, Alessandra Superina¹, Mark Grosse², Miriam Glennie³, Karen Gardner³

Affiliations: ¹*One Disease*, ²*Skinnyfish music*, ³*UNSW Canberra*

Abstract:

Context and aim: Australia's First Nations people are at higher risk of morbidity and mortality associated with the spread of COVID-19 than other Australians but culturally appropriate, local language prevention messaging has been slow in early stages of the pandemic. In remote communities, factors associated with geographic isolation including limited access to health care and essentials, together with overcrowding, language barriers and racism elevate risk. Early and effective risk prevention communication is an important element of pandemic mitigation, but rapid production and distribution of culturally appropriate messages in language, that reflect day to day community life can be challenging.

Methods, analysis and translational outcomes: A crowdsourcing initiative was developed to generate local language videos presenting COVID-19 prevention messaging and distributed via Facebook advertising. Crowdsourcing is an online, distributed, problem-solving, and production model that presents potential for rapid, low cost, culturally appropriate and language specific pandemic prevention messaging. Audience members are directly involved in ideation and solution development. By leveraging real world social networks in remote NT communities, local Indigenous musicians and community members produced short videos in their local language about hand washing hygiene and social distancing. In 14 days, 22 COVID-19 videos in seven Aboriginal languages were produced for distribution via Facebook advertising targeting remote community postcodes. Reach and engagement data show that in a 3-week distribution period, the social distancing videos collectively reached 43,624 people and were viewed in full 27,619 times. The hand washing videos reached 47,472 people and were viewed in full 23,189 times. The reach of this campaign suggests high use of Facebook in remote Aboriginal communities. The high video view figures suggest a high level of community acceptability.

Future actions: The effectiveness of remote Indigenous community members at producing health promotion material should be recognised and reflected in increased future ownership in campaign development.

Culturally appropriate COVID-19 communication resources: Collaboration between the AH&MRC and Aboriginal experts

Authors: Mr Sonny Green¹, Ms Kristy Crooks², Ms Kylie Taylor³

Affiliations: ¹Aboriginal Health & Medical Research Council of NSW, ²Hunter New England Local Health District, ³Hunter New England Local Health District

Abstract:

Context and Aim: Aboriginal communities in NSW have experienced more severe impacts from recent pandemics (2009 H1N1) and remain at higher risk of severe impact from COVID-19 due to their ongoing experience of social and health inequities .

The Aboriginal Health & Medical Research Council of NSW (AH&MRC) aimed to reduce the impact of the COVID-19 pandemic on Aboriginal communities in NSW.

This work is presented with the permission of AH&MRC CEO and Cultural Group. The AH&MRC is an Aboriginal Community Controlled Health Service (ACCHS) and the peak representative body for ACCHSs in NSW. As this work does not involve research, formal ethical approval was not required, in consultation with AH&MRC Ethics.

Methods and analysis/research findings: Aboriginal communities need specific and culturally appropriate and safe public health control strategies that are co-developed, co-designed, co-led through respectful and meaningful engagement , .

Translational outcomes: AH&MRC formed a Cultural Group, that worked with internal public health practitioners and external Aboriginal experts to rapidly co-develop culturally appropriate and safe communication resources for Member Services and broader Aboriginal Community. These tools were practical, accessible, and provided sound public health advice to slow the spread of COVID-19.

Future actions: This model demonstrates the flexibility and impact of collaborative approaches for communicating with Aboriginal communities during public health emergencies. We recommend this model be adopted routinely.

Consistent with AH&MRC's culturally safe and community controlled approach, this abstract, the work described and the approach we recommend is inherently collaborative. This is reflected in the contributing authors listed and nomination of three presenters, all Aboriginal public health practitioners.

COVID-19 lessons: new ways of working with Aboriginal youth in remote communities

Authors: Christine Williamson¹

Affiliations: ¹NPY Women's Council

Abstract:

Context and aim: The government-imposed restrictions associated with the COVID-19 pandemic, significantly impacted the delivery of the NPY Women's Council's Youth Service. Our service operates across the tristate region in central Australia working with Anangu young people. These changed circumstances required rapid innovation to ensure that young people continued to be engaged and supported. We will share the organisation's response and the learnings that will shape our service delivery and planning into the future. The aim is to share these learnings to strengthen practice beyond our region.

Methods and analysis/findings: All staff were engaged in responding to the COVID-19 restrictions; harnessing their knowledge and ideas to identify how the service could operate under these circumstances. Regular reflective sessions helped to understand the use and limitations of our current practice frameworks, share feedback and information in real time and identify new ideas and ways of delivering a service that remained true to our values, principles and commitment to young people. We continued to engage young people in a variety of ways that did not always require staff to be front and centre.

Translational outcomes: We have translated our learnings into practice. Some examples include; greater autonomy for staff to lead key initiatives, empowering young people and families to do for themselves, utilising online platforms, using the opportunity to advocate for reform of traditional practices and revising our program logics, underlying assumptions and operational plan to reflect this new way of working.

Future actions: This period provided an opportunity for transformational learning within the organisation. We will ensure sustainability of lessons learned by embedding them in our practice frameworks, policies and workplace culture. We will utilise these learnings to inform service delivery and advocacy to improve the lives of Anangu young people, as well as challenge and strengthen practice across the sector.

1B – Bushfires and Heatwaves

On Demand from 12:30pm AEDT

Australian Indigenous HealthInfoNet: responding to the bushfire crisis and climate change

Authors: Ms Vilma FitzGerald¹

Affiliations: ¹*Australian Indigenous HealthInfoNet*

Abstract:

The Australian Indigenous HealthInfoNet is a vast web resource that provides information about the health of Aboriginal and Torres Strait Islander people. The Environmental Health portal <https://healthinfo.net.ecu.edu.au/learn/determinants-of-health/environmental-health> is designed to support the information needs specifically for Indigenous Environmental Health Practitioners (IEHPs) who work with Aboriginal and Torres Strait Islander communities.

The Environmental Health portal is aimed to be adaptive and to respond quickly to the ever-growing need for current information on environmental health. The dedicated Climate change section was added in 2018 to provide information about the effects of climate change on Aboriginal and Torres Strait Islander communities.

This was particularly important in the Australian bushfire crisis in the 2019/2020 summer, where communities witnessed and experienced unprecedented fires across Australia. The Environmental Health team responded quickly by sourcing and providing up to date, relevant and timely information about resources, programs, publications and health information on the Environmental Health portal.

The Environmental Health Portal is an effective and appropriate way to deliver information during times of crisis; it supported IEHPs and Aboriginal and Torres Strait Islander communities, who were bravely battling and recovering from the bushfires.

The Environmental Portal has nine dedicated sections on:

- Emergency management
- Climate change
- Caring for Country
- Housing and community
- Water supply
- Personal hygiene
- Waste management
- Communicable disease
- Animal management.

Indigenous communities across Australia face many different types of emergencies. The information provided in the Emergency management section helps communities to avoid emergencies, manage risks, and know how to deal with emergencies quickly and efficiently if they occur. The Environmental Health portal includes other Indigenous-specific information on housing and community, funding, disaster, bushfire recovery, and assistance to ensure a timely response to emergency situations as they arise.

The impact of bushfire disasters on health and wellbeing: A systematic review

Authors: Ms Veronica Zino¹, Dr Heike Schutze^{1,2}

Affiliations: ¹*University Of Wollongong*, ²*UNSW Sydney*

Abstract:

Context/Aim: The prevalence of natural disasters increasing significantly. Over the past few decades, Australia has been devastated by the increased frequency and intensity of bushfires, in particular the 1983 'Ash Wednesday' bushfires, the 2009 'Black Saturday' bushfires and the 2019 'Black Summer' bushfires. There is no current review of the literature. To help fill this gap, we conducted a systematic review of the literature on the impact bushfires on the health and wellbeing on individuals and communities.

Methods: A systematic literature review was undertaken. Eight databases were searched for papers and supplemented by hand searching. Papers were included if they were in English, full text, and published between 1980-2020. Two researchers independently screened the articles and discrepancies were resolved by discussion and consensus. Themes were identified thematically. Nineteen papers were included in the final review.

Translational Outcomes: Three themes emerged. Bushfire disasters are associated with the onset, or exacerbation of mental health conditions. Rates of post-traumatic stress disorder are greater than other mental health conditions, and are higher

among youth. Physical injuries sustained during bushfire disasters can result in long-term disability. This in turn can affect mental health if individuals lose their sense of self, experience financial strain, face accessibility barriers within their home and community environments, and lack access to appropriate health care. Individuals with a strong connection to their home environment experience feelings of loss and grief when their landscape is altered by bushfire disasters. This can be exacerbated by post-bushfire clean-up, which contribute to long-term impacts on wellbeing.

Future Actions: Given the increasing prevalence of bushfire disasters and their impact on long-term ill-health, there is an urgent need to develop and implement strategies to help minimise the long-term severity and impact of bushfires on the overall health and wellbeing of individuals and communities.

Bushfire smoke – public health communication during the Black Summer and beyond

Authors: Professor Sotiris Vardoulakis¹, Dr Erin Walsh¹, Professor Robyn Lucas¹, Mr Tobias James¹, Dr Arnagretta Hunter¹, Ms Nicola Palfrey¹, Associate Professor Karima Laachir¹

Affiliations: ¹Australian National University

Abstract:

Context and Aim: The catastrophic Australian bushfires in late 2019 and early 2020 (the Black Summer), fuelled by climate change, have resulted in the direct loss of human and animal life, and the destruction of thousands of properties and habitats. The fires, mainly in NSW and Victoria, killed 34 people, with millions more being exposed to hazardous bushfire smoke that lingered for weeks over large population centres. Sydney, Canberra and Melbourne, cities with typically good air quality, experienced record-breaking pollution with fine particulate matter (PM_{2.5}) levels exceeding World Health Organization guidelines by over ten times on specific days. This paper presents the ANU communication, media and community engagement effort on bushfire smoke and health protection during the Australian Black Summer, as well as ongoing work on related communication products for children and other audiences.

Methods and Analysis: The Australian National University (ANU), in collaboration with other organisations, developed a set of factsheets, infographics, media articles, interviews and podcasts on how we can protect the public's physical and mental health from bushfire smoke. The ANU factsheets were translated into twelve languages and promoted through all media, reaching a very wide audience in Australia and overseas. The uptake and feedback on these communication outputs is quantitatively and qualitatively assessed.

Translational Outcomes: This paper analyses and discusses approaches and challenges in public health communication, air quality reporting and health messaging in relation to bushfire smoke across Australian jurisdictions during the Black Summer. It also points to the need for greater public awareness among citizens of climate related health hazards and of the need for different health protective behaviours and actions to mitigate climate change.

Future Actions: Further work is currently ongoing to adapt the ANU bushfire smoke and health communication materials for other audiences, such as children, migrants, Aboriginal, patient and professional groups.

High temperatures and mental-related mortality and morbidity: a systematic review and meta-analysis

Authors: Miss Jingwen Liu¹, Dr Alana Hansen¹, Dr Blesson Varghese¹, Dr Peng Bi¹

Affiliations: ¹The University Of Adelaide

Abstract:

Context and aim: Mental health is an issue with public health significance globally, and an increasing number of studies have suggested adverse effects of high ambient temperatures on mental health. However, there have been some inconsistencies in study findings. This study therefore presents a systematic review and meta-analysis of the epidemiological evidence, aiming at filling gaps in knowledge in relation to the quantitative effects of high ambient temperatures on mental-related mortality and morbidity.

Methods and findings: A systematic search of peer-reviewed epidemiological studies published from 1990 to 2020 that linked high temperatures and mental health, was conducted. A range of mental health conditions were defined using ICD-10 classifications. We included studies that examined the quantitative association between temperatures and mental health mortality and/or morbidity (i.e. hospital admissions, ambulance call-outs, emergency department visits) in the general population. Accounting for the heterogeneity across studies, random-effects models were used to summarise the percentage changes in mental health outcomes per 1 °C temperature increase. The keyword search yielded 3672 citations from which we identified 33 studies that provided 320 effect estimates. Findings showed that for each 1 °C increase in temperature, the rate of mental health-related mortality and morbidity increased by 1.6% (95%CI: 1.5-1.8%) and 0.9% (95%CI: 0.7-1.2%), respectively. The greatest risk was associated with mortality attributed to substance-related mental disorders (5.8%; 95%CI: 0.9-11.2%), and neurological disorders, including dementia (4.6%; 95%CI: 3.6-5.6%). A 1°C temperature rise was also associated with a statistically significant increase in schizophrenia, and anxiety- and depressive-related morbidity.

Translational outcomes: Our findings support the hypothesis of a significant and positive association between elevated ambient temperatures and mental health outcomes. These risks will likely increase with a warming climate.

Future actions: Further research needs to be conducted to identify persons at risk, and interventions to minimise adverse mental-health outcomes during high temperatures.

Impact of heatwaves on morbidity outcomes in Adelaide

Authors: Dr Blesson Varghese^{1,4}, Dr Matt Beaty², Dr Monika Nitschke³, Prof Peng Bi¹, Mr John Nairn^{4,1}

Affiliations: ¹The University Of Adelaide, ²Australian Government Department of Health, ³Department of Health and Wellbeing, ⁴Australian Bureau of Meteorology

Abstract:

Context and aim: Heatwaves are of increasing concern due to impacts on population health (mortality/morbidity). In a warming climate local heatwave impact evidence is critical for effective policy, planning, and interventions. A subset of national research, this study investigates morbidity impacts associated with heatwaves in Adelaide using three indicators: ambulance-callouts, general practitioner (GP) and emergency departments (ED) visits.

Methods and findings: Data on ambulance-callouts (2000-2014), GP visits (2011-2016), ED presentations (2013-2018), heatwaves defined using Excess Heat Factor (EHF), and vulnerability factors (socio-demographic, health-risk, and environmental) were obtained from the South Australian Department of Health and Wellbeing, Australian Bureau of Statistics, Commonwealth Department of Health, Bureau of Meteorology (BOM), and Geoscience Australia. Case-crossover analyses were used to assess the impact of heatwaves on ambulance-callouts, GP, and ED visits at the Statistical Area Level 2 (SA2) geography (representing suburbs). Results are reported as relative risks (RRs) according to EHF severity defined by BOM (low-intensity, severe/extreme) compared with non-heatwaves.

Ambulance-callouts increased during low-intensity (RR 1.03; 95%CI: 1.02-1.04) and severe/extreme heatwaves (RR 1.08; 95%CI: 1.05-1.10), while GP visits increased only during severe/extreme heatwaves (RR 1.14; 95%CI: 1.13-1.15). Overall ED visits also increased during low-intensity (RR 1.10; 95%CI: 1.06-1.14) and severe/extreme heatwaves (RR 1.09; 95%CI: 1.02-1.17), particularly those due to heat exhaustion and stroke (RR 4.23; 95%CI: 2.98-6.00), dehydration (RR 1.83; 95%CI: 1.42-2.35), respiratory (RR 1.32; 95%CI: 1.05-1.67) and severe mental illnesses (RR 1.15; 95%CI: 0.88-1.50) increased during severe/extreme heatwaves.

Translational outcomes: Our findings show that heatwave impacts extend beyond mortality to include frontline health-services such as ambulance-callouts, GP services, and ED visits that are already challenged. These risks are likely to increase as the climate warms.

Future actions: Further research is needed to identify; (a) the intrinsic and extrinsic determinants contributing to heatwave-morbidity across Adelaide and (b) the most vulnerable areas by mapping heatwave-vulnerability.

Towards heat impact forecasts through linked-data and cross-agency collaboration

Authors: Mr John Nairn^{1,3}, Dr Matt Beaty², Dr Blesson Varghese^{3,1}, Mr Cheng Chen⁴, Dr Tina Yang⁵, Ms Shannon Panchuk¹, Dr Brenda Mackie¹

Affiliations: ¹Australian Bureau of Meteorology, ²Australian Government Department of Health, ³University of Adelaide, ⁴Australian Bureau of Statistics, ⁵Geoscience Australia

Abstract:

Context and aim: Development of nationally consistent impact forecast services depends upon cross-agency collaboration to assemble hazard and impact data sets to build an understanding of key vulnerabilities and develop strategies to reduce harm. Extreme heat and associated hazards of bushfire and smoke are key examples of impact events suited to vulnerability assessments that will advance disaster mitigation and response strategies.

The 'Reducing Illness and Lives Lost from Heatwaves' is a Commonwealth Department of Agriculture Water and Environment data-integration partnership project led by the Bureau of Meteorology, partnered with the Department of Health, Australian Bureau of Statistics and Geoscience Australia which addressed: Who is most at risk for heat-related illnesses and death? What are the characteristics of the communities and built-environments in which they reside? How can services to vulnerable groups be improved through heat-health warnings and targeted interventions?

Methods and analysis: Linked administrative data (deaths, health, social services, and census) were combined with heatwave, community, and built-environment data to provide a novel heat-health dataset for Australia. The analysis consisted of three components: 1) Modelling of heat-mortality and illness related to individual and community-level characteristics, heatwave severity and built-environment; 2) Heat-vulnerability mapping of mortality/illness risk alongside aggregate and individual level indicators on exposure, sensitivity and adaptation; and 3) Modelling of health impacts under future heatwave, land-use and socio-economic scenarios.

Translational outcomes: Patterns of heat mortality and illness varied across major cities and regional areas. There were considerable differences in heat-health risk within cities. Heat-health impacts are related to recurring person and community characteristics, and environmental factors at both aggregate and individual scales. This analysis provides a basis for heat-health impact forecasting that would extend current capabilities.

Cross-agency collaboration design and implementation learnings will be discussed.

Future actions: Investigate practicality of a joint Australian Public Health Warning Centre for natural hazards.

1C – COVID-19: Health and Wellbeing

On Demand from 12:30pm AEDT

The pandemic and rural food supply: stress, agility, loyalty, pride and media.

Authors: Dr Jillian Whelan¹, Mr Andrew D Brown², Dr Claudia Strugnell², Mrs Lee Collier³, Dr Laura Alston², Professor Steven Allender², Professor Colin Bell¹

Affiliations: ¹*School of Medicine, Global Obesity Centre, Deakin University*, ²*School of Health and Social Development, Global Obesity Centre, Deakin University*, ³*Lower Hume Primary Care Partnership*

Abstract:

Context and aim: Poor diet is a key driver of adverse health outcomes globally and in Australia. Food availability impacts diet and rural communities experience unique challenges in accessing healthy food. In non-pandemic times, Australians purchase approximately 70% of their food from supermarkets. This study aimed to explore the impact of COVID-19 on food supply and purchases in a rural Australian community (population of 2,695), serviced by just one independent supermarket.

Methods and analysis/research findings: We facilitated group model building workshops to explore food supply experiences during the pandemic. We asked senior managers of the supermarket “What are the current drivers of food supply into this supermarket environment?” and separately with 15 customers asked: “What are the current drivers of purchases in this supermarket environment?” We drew causal loop diagrams in real time, post-workshops we refined the diagrams and identified key themes using workshop recordings.

Retailer key themes: urgency of reacting to government, media and social media messaging; stress from suppliers, consumers and governments; seeking alternate suppliers and alternate transport, reduced competition for supermarkets (e.g. restaurant closure), transition to online sales, real or perceived supply chain preference to major chains supermarkets, pride in their work.

Customer key themes: strengthened loyalty to and pride in local community stores, fewer visits but more purchases per visit to the supermarket, reduced out-shopping, importance of customer service, price increases and lack of special offers.

Translational outcomes: Lessons learnt will help retailers be more prepared for the inevitable social and economic shocks that impact food systems in rural communities.

Future actions: We recommend: the supermarket retain and strengthen connections with new suppliers; and customers action their acknowledged need to purchase food locally to ensure continued service. Ongoing conversations between the supermarket and customers could be mutually beneficial and create healthier and sustainable food environments.

The emotional impact and worries of life during a pandemic

Authors: Christina Cheng¹, Shandell Elmer¹, Sanne Elbrink¹, Richard Osborne¹, Melanie Hawkins¹, Roy Batterham¹, Zaman Zawahar¹, Ranjit Nadarajah¹, Kerrie Paulger¹

Affiliations: ¹*Swinburne University of Technology*

Abstract:

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

The emotional impact and worries experienced within a pandemic differ according to gender, life-roles and health status. Better understanding experiences of different groups will help to target public health messages during the response and recovery periods.

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]

The BeatCovid19Now survey (April 22 – May 26, 2020) collected 4577 responses about emotional impact and worry during a time when many governments invoked public health restrictions, including limiting social contact.

Descriptive statistics were generated for demographic data, emotional impact scores and responses to people’s worries. For exploring group differences relating to emotional impacts among different demographic groups, a Bayesian Multiple Indicators Multiple Causes (MIMIC) model approach was undertaken.

Females, younger age groups, healthcare workers and people living with multiple chronic health conditions had significantly higher emotional impact scores. Almost 10% of respondents were worried or very worried about their mental wellbeing. Other main concerns were taking care of their physical health and having enough money.

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

The findings provide valuable insights about the specific topics that people are worried about and who worries most. They are also indicative of the emotional impact on different groups of people. This information can be used pre-emptively to target messages and support different groups of people.

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

Develop public health messages that consider the needs of people most likely to experience higher emotional impact.

Consider the health literacy needs, strengths and preferences of different groups in the community to ensure messages are received and understood.

Provide targeted mental health support based on the emotional impact and worries of different groups.

Health behaviour changes during the Covid-19 pandemic. Preliminary results from online survey.

Authors: Dr. Kristen Glenister¹, Dr. Tegan Podubinski¹

Affiliations: ¹*University Of Melbourne, Department of Rural Health*

Abstract:

Context and aim: The Covid-19 pandemic has necessitated many changes to everyday life and has been inherently stressful.

During periods of stress and uncertainty, people often exhibit poor health behaviours, including consuming more alcohol, exercising less and turning to 'comfort food'. These behaviours are ineffective coping strategies for stress, and may exacerbate mental and physical health conditions. This study sought to assess health behaviour changes and health service use during the Covid-19 pandemic.

Methods and analysis: Participants completed an online, anonymous survey with snowball recruitment, which included questions related to changes in behaviour during the Covid-19 pandemic (exercise, consumption of coffee, alcohol and unhealthy food, smoking, social interaction, personal care activities) and health care utilisation (doctor, other health professionals). Australian adults who had undertaken paid employment or had volunteered since December 2019 were eligible to participate.

Research Findings: 537 valid survey responses have been received to date, with 98.5% from paid employees. Approximately one fifth of respondents reported living with a chronic physical (21.2%) or long-term mental health condition (20.5%). Of the respondents who exercised, 38.5% said that they had exercised less. Among the respondents who reported these behaviours; 27.6% were consuming more coffee, 38.1% were eating more unhealthy food and 39.1% were consuming more alcohol. Among the 53 respondents who smoked, 21 were smoking more. Most respondents (90.4%) were having less social interaction and 43.8% were undertaking less personal care activities. Respondents were seeing the doctor (30.1%) and other health professionals (34.2%) less.

Translational outcomes: This information will be used to increase awareness of unhelpful health behaviours and improve management of chronic health conditions during the Covid-19 pandemic.

Future actions: Resources related to coping strategies for periods of stress that both assist with coping and are health promoting will be reviewed in the context of the Covid-19 pandemic.

An inclusive policy response: the COVID-19 health response for people with disability

Authors: Miss Marijke Adderley¹

Affiliations: ¹*Australian Government Department Of Health*

Abstract:

The emergence of coronavirus (COVID-19) has impacted all Australians in a profound way, but especially people with disability. Whilst public health measures such as physical distancing, isolation, and changes in the delivery of healthcare have been critical in 'flattening the curve', many of the 4.4 million Australians with disability have experienced significant impacts to their daily lives. The risk of contracting COVID-19 is heightened for many people with disability as they rely on the close physical contact of carers and support workers, and for those who are also immunocompromised, a simple trip to a healthcare setting could be life-threatening. In March 2020, it was identified that a tailored response to COVID-19 for people with disability was absent both nationally and internationally, and an inclusive policy was required. The Department of Health (the Department) partnered with the National Disability Insurance Agency, the Department of Social Services, the NDIS Quality and Safeguards Commission, and jurisdictional health departments. The Department also sought advice from an Advisory Committee of people with lived experience and experts from the disability, health and research fields. This co-design approach was integral to the effectiveness of the response and ensuring human rights were upheld. Consulting with people with lived experience provided critical insight into the areas that required prioritisation and immediate action. Some of these areas required only simple policy adaptations such as making key public health information available in a range of accessible formats such as Easy Read and translating into Auslan. These changes were simple, but incredibly powerful and meaningful to the disability community. This accelerated policy response has demonstrated that responding to public health emergencies requires an adaptable and tailored approach. Successful collaboration and co-design is key to this, including understanding the lived experience of our most vulnerable communities so that no Australian is left behind.

Real-time psychosocial impacts of COVID-19 on Australian cancer patients, survivors and carers

Authors: Ms Rhiannon Edge¹, Ms Carolyn Mazariego¹, Ms Zhicheng Li¹, Associate Professor Natalie Taylor^{1,2}, Ms Annie Miller¹

Affiliations: ¹Cancer Council NSW, ²The University of Sydney

Abstract:

Context/aim: The COVID-19 pandemic is a global health crisis of unparalleled magnitude. As a vulnerable group, cancer patients, survivors, and their carers have been disproportionately affected by the crisis. Recent international reports have emerged reporting significant disruptions to diagnostic pathways and the delivery of cancer services. The psychological impacts of these disruptions, in addition to the effects of the deepening economic crisis and physical distancing measures warrant further exploration. This research investigates the psychosocial impacts of the COVID-19 pandemic on cancer patients, survivors and carers as it has unfolded in Australia.

Methods/analysis/findings: This study utilised real-time insights obtained over six months (01 December 2019-31 May 2020) from two Cancer Council NSW services; the 131120 Information and Support Line (n=496) and Online Community (CCOC) forums (n=192). First, call and online post data was analysed to assess trends in service demand and distress levels. We then conducted an inductive conventional content analysis on the 131120 call data, followed by a deductive directed content analysis on the CCOC data. Five dominant themes emerged from our analysis; Psychological Distress, Practical Issues, Cancer Service Disruptions, Information Needs and Carer Issues. From these, we derived several consumer-driven recommendations.

Translational outcomes: Our research offers timely and novel insights to the limited evidence surrounding COVID-19 and the lived experience of cancer. The recommendations will inform patient-centred approaches to enhance quality of care, influence policy, and inform the design of interventions to support Australian cancer patients and their families, both during and beyond COVID-19.

Future action: We propose new or alternative interventions that offer improved psychological and practical support to cancer patients and carers, whilst ensuring safe contact and social connection. Further, we recommend additional guidelines acknowledging the unique challenges faced by vulnerable populations to improve cancer patient outcomes. These recommendations should be implemented and evaluated for effectiveness.

The psychosocial impact of COVID-19 on cancer communities and cancer care delivery

Authors: Ms Rhiannon Edge¹, Ms Zhicheng Li¹, Ms Priscilla Chan¹, Ms Gabriella Tiernan¹, Ms April Morrow¹, Ms Alexandra Schiavuzzi¹, Ms Carolyn Mazariego¹, Dr Amy Vassallo^{1,2}, Associate Professor Natalie Taylor^{1,2}

Affiliations: ¹Cancer Council NSW, ²The University of Sydney

Abstract:

Context/aim: The COVID-19 pandemic is having a significant global health impact, but particularly on people living with cancer, their families and carers. It is also affecting the delivery of cancer services, and the healthcare workers employed in these settings. This nationwide study aims to understand the psychosocial impact of the pandemic for these groups, and learn how it is affecting cancer care delivery, to subsequently drive the design of relevant support mechanisms and interventions both during and after this evolving health crisis.

Methods/analysis/findings: Informed by existing insights from Cancer Council NSW (CCNSW) patient and carer support services and key informants involved cancer care delivery, we designed two surveys to assess COVID-19 impacts on:

Cancer patients and their carers- focusing on access to diagnostic tests and treatment, views and experiences of telehealth services, health behaviours, and psychosocial factors (survey 1).

Healthcare workers employed in cancer services- focusing on preparedness for crisis and organisational resilience, impact on cancer care delivery, positive changes in healthcare delivery, response and recovery strategies needed, psychosocial impact (survey 2).

Translational outcomes: Both surveys were launched mid-June 2020 and will be live for approximately 10 weeks. Expert CCNSW branding and media support enabled rapid dissemination and recruitment. As of 01/07/2020, we have received 194 patient, 41 carer, and 34 healthcare worker responses, with 126 patients/carers, and eight healthcare workers agreeing to be contacted for follow up research activities (e.g., interviews). Interim analysis will support rapid CCNSW program and service decision-making regarding the provision of support and interventions for cancer communities.

Future action: Results will be translated into key recommendations for cancer care in Australia to enhance healthcare system preparedness and resilience, should a second wave or future crisis events occur. Findings will guide intervention design for cancer patients, carers, and healthcare workers, which will be evaluated for impact.

1D – Policy & Practice

On Demand from 12:30pm AEDT

Lack of planning for infants in the Black Summer and COVID-19 emergencies

Authors: Dr Karleen Gribble¹

Affiliations ¹*Western Sydney University*

Abstract:

Context: Australia frequently experiences natural emergencies and is currently responding to the COVID-19 pandemic. Infants are vulnerable in emergencies because of their immature immune system and their specific food and fluid needs.

Methods and analysis: Australian government emergency plans and guidance were searched for content dealing with the needs of infants. While plans and guidance contained numerous pointers to the desirability of having plans for infants, there was a dearth of planning at all levels of government.

Translational outcomes: In response, to this and previous research, the National Breastfeeding Strategy stated that emergency plans for infants must be developed.

In the Black Saturday Fires and the COVID-19 pandemic, the vulnerability of infants due to this lack of planning was exposed. Because of bushfire, thousands of parents prepared to evacuate with no government guidance on infant needs. Communities were without power, clean water, and food supplies and while emergency responders could not provide breastfeeding support they distributed infant formula regardless of the lack of facilities for safe preparation. In the COVID-19 pandemic, government communications regarding infants were absent. Health service limitations meant that mothers were unable to access adequate post-natal and child health care.

The online news site The Conversation was used to publish articles mitigating against the planning deficit. Evacuation guidance for infants was republished across more than a dozen local newspapers in the fire field at the height of the bushfires and used by Victorian DHHS. As pandemic restrictions were implemented, an article on Coronavirus and infants garnered more than 350 000 reads within a two-week period and was used in the development of state government guidance.

Future actions: There is an urgent need for the Federal Department of Health to convene an expert working group to adapt international infant and young child feeding in emergencies guidance for Australia.

A call to action: contextualising data limitations as public health issues

Authors: Ms Leah Allan^{1,3}, Ms Marina Chand¹, Ms Nera Komaric^{1,2}, Ms Aurora Pascaud¹, Ms Sameera Suleman^{1,4}

Affiliations: ¹*World Wellness Group*, ²*The University of Queensland*, ³*Queensland University of Technology*, ⁴*Griffith University*

Abstract:

Context: Extremely poor data continues to plague the multicultural healthcare sector, raising concerns about policy response and investment.

Learning objectives:

- Critically consider how existing data limitations constrain the development, delivery and achievement of public health priorities in Australia;
- Identify sources of available data that could contribute to existing knowledge sources; and
- Identify opportunities for advocacy at the local, state and national levels to seek the development of a more equitable and coordinated dataset.

Methods and analysis: There have been consistent calls for the development of a nationally consistent data set to more accurately represent all populations: including the Federation of the Ethnic Communities' Council of Australia (2019), note that within three leading Australian public health journals, only 2.2 per cent of the literature focused on multicultural health (Garrett, Dickson, Whelan, & Whyte, 2010). **Translational outcomes:** The lack of data to address the current wave of 'bushfires, climate and coronavirus' can be seen as only the latest potential failing of Commonwealth, State and local data collection systems to adequately account for Australia's diversity. At best, this could be seen as a failure of the system to provide sufficient flexibility and resourcing to account for the required data collection; and at worst, a systemic issue that reflects more deeply on how we plan and deliver our health services. **Future actions:** The development, maintenance and utilisation of a high-quality dataset that reflects Australia's diversity is critical to develop, deliver and achieve our public health priorities. Additionally, continued opportunities for advocacy are required to identify how we can consistently call for the development of a more equitable, representative, and coordinated dataset to guide our public health investment.

Foodprint Melbourne: what makes a healthy, resilient and equitable food system?

Authors: Dr Maureen Murphy¹, Dr Rachel Carey¹, Leila Alexandra¹

Affiliations: ¹The University of Melbourne

Abstract:

Context and aim: The 2019-2020 Australian bushfires demonstrated the vulnerability of the food system to climate shocks. Food production was severely impacted and food distribution networks by road and rail were disrupted. The COVID-19 pandemic has also placed unprecedented demand on the food supply and exposed faultlines in the food system. Food insecurity has increased sharply due to the growing economic crisis, presenting a significant public health challenge.

This study in Melbourne, Australia, investigates the vulnerabilities of the city's food system to shocks and stresses such as bushfire, floods, drought, and pandemic, and examines the impact on communities. It aims to inform policy to build more resilient food systems.

Methods and analysis/research findings: Using a mixed methods approach, the study comprised a desktop policy analysis and literature review, spatial mapping of food flows through the Melbourne city region, and key stakeholder interviews with participants from government, industry and civil society organisations.

Food flow mapping revealed the geographic areas around Melbourne vulnerable to climate-related shocks such as bushfire and flood. Participants highlighted the significant economic and social upheaval of climate and pandemic shocks on communities, and the need for policy measures to address widespread food insecurity.

Translational outcomes: The Foodprint Melbourne study is working with stakeholders to identify ways to build the resilience of Melbourne's food system to withstand future shocks and stresses. Policy and governance opportunities have been identified to build a resilient food system to support healthy, equitable access to food.

Future actions: By identifying the vulnerabilities in Melbourne's food system, and geographic areas and population groups most exposed to shocks and stresses, there is an opportunity to plan for and ameliorate risk. Together, local and state government, civil society and food system stakeholders can work to build a healthier, more resilient and equitable food system for all.

Tackling alcohol and gambling related harm: Capacity building Initiatives and experiences

Authors: Mr Andrew Reid^{1,2,3}, Dr Sigi Zapart^{1,2,3}, Dr Fiona Haigh^{3,4}, Ms Karla Jaques^{1,2,3}

Affiliations: ¹Centre for Health Equity Training, Research and Evaluation (CHETRE), Unit of Population Health, South Western Sydney Local Health District (SWSLHD), NSW Health, ²Ingham Institute, ³Centre for Primary Health Care & Equity UNSW, ⁴Health Equity Research Development Unit (HERDU), Unit of Clinical Services Integration and Population Health, Sydney Local Health District (SLHD), NSW Health

Abstract:

Context/Aim: Alcohol-related harm (ARH) contributes substantially to burden of disease in Australia. Gambling-related harm (GRH) is increasing with 1.4 million Australians experiencing GRH in 2018. Disadvantaged communities are likely to experience significantly more harm than other population groups. Association between alcohol consumption and gambling is also well established. The Centre for Health Equity Training, Research and Evaluation has utilised capacity building and codesign approaches (including Health Impact Assessment [HIA]) to improve awareness, knowledge, and confidence and ability of service providers and community residents to address these issues.

Methods/Findings: Activities conducted in 2 disadvantaged areas in SWS include: ARH forums and community consultation targeting service providers and residents; HIA on GRH; GRH forum targeting service providers; Assistance, advice, and support provided to organisations for the development of action plans and design, implementation and evaluation of projects.

Public drinking and access to alcohol were the top issues services and residents in Miller, wanted addressed. Fairfield is one area most at risk of GRH with \$1.38million/day lost through poker machines in 2018. Service providers and residents were able and willing, but uncertain, lacked confidence, knowledge, and skills to participate in advocacy processes to reduce ARH and GRH in their community.

Translational outcomes: Outcomes to date include: co-design project involving workshops to build advocacy capacity for involvement in liquor licensing processes; screening tool for GPs and Community workers to identify persons experiencing GRH developed and being piloted; a draft SWSLHD Alcohol Reduction Plan developed.

Future action: Information, insights and experiences gained from this work indicates that further capacity building and codesign activities including consultation, workshops, and specific projects to address identified issues, are required at local levels. In terms of gambling, consultation needs to be extended to community residents. Evaluation needs to be embedded in all work.

An epidemic of junk food marketing: using COVID-19 as a marketing opportunity

Authors: Ms Ainslie Sartori¹, Ms Kelly Kennington¹

Affiliations: ¹*Cancer Council WA*

Abstract:

Context and aim: The junk food industry has always been adept at shifting its marketing according to the season/during times of celebration. But the speed with which it switched its marketing focus when COVID-19 became part of public consciousness was breathtaking. Soon after the first wave of restrictions were announced the marketing took on a more targeted focus, aimed at exploiting our new way of living.

Methods and analysis: Desktop research conducted in April 2020 by Cancer Council WA highlighted the issue. Facebook and Instagram accounts of well-known junk food brands were considered and the different tactics used examined such as altering traditional ranges (McDonalds); offering free drinks and food to healthcare workers (McDonalds, Krispy Kreme, Red Rooster), appealing to children via the use of games and prizes (Skittles), and trying to make themselves relatable by incorporating social distancing terminology into their marketing (Red Rooster).

Translational outcomes: The predatory marketing strategies of the junk food industry during this public health crisis create ethical challenges. Evidence is clear that marketing has an impact on the diet of Australian adults and children. Advertising that preys on the uncertainty, fear and boredom of the community is concerning, particularly for those experiencing the most social and economic disadvantage. Through the LiveLighter® blog and other publications Cancer Council WA has urged Australians to push back against these marketing strategies and question who is really benefiting from the promotions.

Future actions: The marketing of junk food is largely self-regulated and it is imperative that all levels of government introduce stricter regulations to protect Australians from the influence of these types of marketing tactics. The Final Report of the Sustainable Health Review recommended the banning of junk food advertising on government-owned assets, and public health organisations continue to call on the State Government to implement this recommendation.

Sugar content and labelling of commercial infant and toddler foods

Authors: Alison McAleese¹, Alison Schmidtke², Katarnya Hickey², Emily Falduto¹, Jane Martin²

Affiliations: ¹*Cancer Council Victoria*, ²*Obesity Policy Coalition*

Abstract:

What is the problem?: Commercial infant and toddler foods are increasingly popular due to more working parents. Little attention has been given to their sugar content or labelling practices. There are some labelling requirements and compositional limits stipulated in the Food Code for infant foods, but none for toddler foods. This study aimed to understand the sugar content of infant and toddler foods in Australia and health related labelling.

What have we learned?: We conducted a survey of infant (4-12 months) and toddler (1-3 years) foods instore and online at 3 major Australian supermarket chains. Front- and back-of-pack pictorial and word-based labelling, nutrient composition and ingredients were recorded. The final sample contained 255 items. 181 were for infants < 12 months including 51 products for < 6 months. There were 75 finger-food snacks, 129 squeezable-pouches, 15 toddler meals. 110 infant and 31 toddler foods had fruit statements or images on front-of-pack, but many contained highly processed fruit ingredients such as fruit paste. There were 18 savoury squeezable-pouches and 10 toddler meals containing processed fruit ingredients – often not disclosed in the name. Infant foods contained up to 19.7g sugar per serve and toddler foods up to 13.3g. Finger-food snacks were most likely to be high in sugar.

How has this been used in practice? What are the future actions?: These findings are important in the wake of covid-19 as parents juggle caring and work and are increasingly health conscious. Fruit and vegetable labelling on these foods may make them appear healthier than they are. Many foods were high in sugar and often fruit ingredients were highly processed. A clear definition and labelling of added sugar could help address the representation of highly processed fruit sugars as fruit. Additionally, compositional limits on infant foods should be expanded to address added sugars.

Tuesday 20 October 2020

2A - Prevention

On Demand from 9:30am AEDT

If we don't ask, we don't know and we can't help

Authors: Dr. Mariana Galrao¹, R Douglas¹, A Creagh¹, S Smith¹, Danja Locke¹, C Brooker¹

Affiliations: ¹*Sexual Health Quarters*

Abstract:

Context and aim: Before Covid-19, 1 in 3 Australian women experienced violence by a partner, resulting in 10 hospitalisations a day and one murder a week. Since the imposed lockdown measures, the number of victims seeking urgent assistance has increased at least 10% in Australia, 700% in other parts of the world. With no certainty on the duration of such measures, preventing and protecting women from intimate partner violence (IPV) must be a worldwide public health priority.

Research indicates those exposed to violence want their GP to ask them about it. However, clinicians report personal discomfort broaching the subject and lack of knowledge of how to intervene. Avoidance of the issue exacerbates the stigma associated with IPV, potentially stopping women from seeking help when needed.

Our aim was to design and implement an innovative screening program for intimate partner violence that is acceptable to both consumers and health staff, transferable to other settings and sustainable into the future.

Methods and analysis:

1) developed screening and risk assessment tools, endorsed by consumers and health staff; 2) developed referral pathways; 3) introduced IPV-specific counselling appointments; 4) trained staff; 5) modified clinic layout to be consumer-centred; 6) designed posters to raise awareness, 7) implemented program at Sexual Health Quarters; 7) collected staff and consumer feedback before and after program implementation.

In the first 12 months of the program we screened 2644 women, identified exposure to violence in 17.3% and provided counselling to 27%. All consumers and staff surveyed supported this program, with 90% of staff acknowledging that it was easier than expected.

Translational outcomes: Our program highlights the feasibility and acceptability of an intervention for the secondary prevention of partner violence

Future actions: Health professionals should be trained in effective screening and referral pathways for patients exposed to intimate partner violence.

Is there a link between intimate partner violence, STI and unintended pregnancies?

Authors: Dr. Mariana Galrao¹, Richelle Douglas¹, A Creagh¹, S Smith¹, Danja Locke¹, C Brooker¹

Affiliations: ¹*Sexual Health Quarters*

Abstract:

Context and aim: 1 in 3 Australian women experience intimate partner violence (IPV). This form of violence is the leading risk factor contributing to the disease burden of Australian women of reproductive age. It has been shown to cause anxiety, depression, suicide, self-harm, alcohol dependence and early pregnancy loss. There are also strong links between this form of violence and obstetric complications.

Reproductive coercion (RC) is one of the many forms of partner violence. It happens when a partner denies a person of their full reproductive rights, such as the right to contraception and the right to decide the outcome of a pregnancy. Despite the paucity of studies in this field, it has been suggested that RC may be linked to poor sexual health outcomes.

We aimed to explore a potential link between exposure to IPV/RC and having a sexually transmitted infection (STI) and/or unintended pregnancy (UPP) among female clients aged 16 and over presenting to an urban sexual health clinic (SHQ).

Methods and analysis/research findings: Cross-sectional study using 2 sources of data: 1) screening tool to identify females exposed to intimate partner violence and/or reproductive coercion, 2) SHQ's clinical records system to identify presence or absence of unintended pregnancy and sexually transmitted infections.

Exposure to violence was identified in 17.3% of the total sample size of 2644.

Women exposed to IPV and/or RC were 2.3 times more likely to have an unintended pregnancy and 1.7 times more likely to have a sexually transmitted infection.

Translational outcomes: This study confirms a potential link between IPV/RC and poor sexual health outcomes.

Future actions: More studies are needed to establish whether IPV/RC is a risk factor for STI and UPP and whether routine screening for IPV/RC in sexual health clinics leads to earlier detection of this violence and improved health outcomes

Active Women over 50 online physical activity program: a pilot trial

Authors: Ms Geraldine Wallbank^{1,2}, Professor Catherine Sherrington^{1,2}, Doctor Leanne Hassett^{1,2,3}, Doctor Dominika Kwasnicka^{4,5,6}, Doctor Josephine Y. Chau^{7,8}, Doctor Fiona Martin⁹, Associate Professor Philayrath Phongsavan⁸, Doctor Anne Grunseit⁸, Professor Colleen Canning³, Professor Marian Baird¹⁰, Professor Roberta Shepherd³, Associate Professor Anne Tiedemann^{1,2}

Affiliations: ¹*Institute for Musculoskeletal Health, The University of Sydney and Sydney Local Health District*, ²*School of Public Health, Faculty of Medicine and Health, The University of Sydney*, ³*Discipline of Physiotherapy, Sydney School of Health Sciences, Faculty of Medicine and Health, The University of Sydney*, ⁴*Faculty of Health Sciences, School of Public Health, Curtin University*, ⁵*SWPS University of Social Sciences and Humanities*, ⁶*Melbourne School of Population and Global Health, University of Melbourne*, ⁷*Department of Health Systems and Population, Macquarie University*, ⁸*Charles Perkins Centre, Sydney School of Public Health, The University of Sydney*, ⁹*Department of Media and Communications, Faculty of Arts and Social Science, The University of Sydney*, ¹⁰*Discipline of Work and Organisational Studies, Sydney Business School, The University of Sydney*

Abstract:

Context and aim: Physical inactivity is an important but modifiable disease risk factor, that directly impacts mortality and independence. Regular physical activity can prevent or delay disease and disability in older age if commenced in earlier years. Emerging evidence suggests that people's interest in exercise increased during the COVID19 lockdown but the impact on physical activity by age and gender is not yet understood. Women in their middle age years face unique barriers to physical activity and need a supported approach to adopt and sustain this health behaviour. This pilot trial establishes the acceptability, feasibility, and impact of the Active Women over 50 (AWo50) program on physical activity among women aged 50+.

Methods and analysis/research findings: Sixty-two participants across NSW were randomised to receive the online AWo50 program either immediately or after a 3-month delay (wait-list control). The AWo50 program uses behaviour change techniques and includes access to the AWo50 website, regular motivational-based email/SMS messages, and telephone health coaching support. Primary outcome was the likelihood of participants recommending participation in the study to others. Preliminary results show 83% participants would recommend study participation, 80% accessed AWo50 website, 87% elected to receive messages, and 96% accessed health coaching. Physical activity data are being analysed.

Translational outcomes: The AWo50 program is delivered remotely, which is key in reaching socially isolated women and those in broad socio-geographic contexts. This approach is particularly relevant at this time due to the restrictions imposed by COVID19 on face-to-face delivery of health promotion strategies.

Future actions: If found effective in a fully powered trial, the AWo50 program could be directly implemented at a population level. This program has the potential to reach people who are isolated, maximise health for independent and healthy ageing, and address the burden that physical inactivity has on individuals and health systems.

Health, wellbeing, sustainable tenancies for 'studio' clients: A place-based intervention and evaluation

Authors: Dr Siggie Zapart^{1,2,3,4}, Ms Karla Jaques^{1,2,3,4}, Dr Fiona Haigh^{5,2,6}, Ms Genene Peisley⁷, Mr Soour Gov⁷

Affiliations: ¹*Centre for Health Equity Training, Research and Evaluation (CHETRE)*, ²*UNSW Research Centre for Primary Health Care and Equity*, ³*Population Health, South Western Sydney Local Health District, NSW Health*, ⁴*The Ingham Institute*, ⁵*Health Equity Research and Development Unit*, ⁶*Population Health, Sydney Local Health District, NSW Health*, ⁷*Department of Communities and Justice*

Abstract:

Context and aim: People living in locationally disadvantaged communities typically have: limited access to services and facilities; poor employment, training and educational opportunities, and physical and social infrastructures; and poorer health outcomes. Place-based interventions can be effective in addressing this disadvantage. The Department of Communities and Justice (Housing) provides secure and affordable rentals for people on low incomes and administers a number of 'studio' complexes. 'Studio' clients experience a high level of health inequity. As part of a Health and Housing Partnership initiative, the Centre for Health Equity Training, Research and Evaluation (CHETRE) and Housing are conducting a place-based intervention and evaluation project targeting a 'studio' complex, with the aim of improving health and wellbeing outcomes and increasing sustainable tenancies.

Methods and Findings: The project utilises a quasi-experimental design comprising a co-design intervention (implemented by Housing) and an evaluation (conducted by CHETRE) running concurrently with the intervention. A scoping review helped inform intervention design. Tenants are involved in all project stages. Evaluation includes impact and process evaluation. Quantitative and qualitative data will be collected at the beginning of the intervention co-design process, and pre, during and 6 and 12 months post intervention commencement. Findings from the scoping review and the pre intervention data collection and analysis will be presented. COVID-19 related project impacts will also be discussed

Translational outcomes: The evaluation is expected to demonstrate the benefits of increased engagement and support for housing clients living in 'studio' complexes, and will be used to inform Housing's approach to managing 'studio' complexes across NSW.

Future actions: Project findings and learnings can be used to inform broader approaches to supporting sustainable tenancies and enhancing health outcomes for all social housing clients. They can also inform the development, implementation and evaluation of interventions targeting low-income residents of other rental accommodation in disadvantaged areas.

The benefits and barriers to nature-based activities in South Australian primary schools

Authors: Nicole Miller¹, Dr Katherine Baldock¹, As/Pr Saravana Kumar¹, Dr Karma Pearce¹

Affiliations: ¹*University Of South Australia*

Abstract:

The benefits of integrating nature-based play, learning spaces and programs into schools have become widely accepted internationally. However, the evidence base for the benefits of and barriers to nature-based play and learning is just emerging. To investigate the value of nature-based play and learning to schools, staff across 50 public primary schools in South Australia completed an online survey. Data collection occurred from August to December 2019. The survey contained 31 questions regarding the benefits of and barriers to nature-based play and learning in primary schools. Participants were mostly female (92%), educators (68%), from metropolitan schools (56%). The benefits of nature-based play and learning reported by the majority of respondents included 'mental health' (98%), 'spending time outdoors' (96%), 'connection to nature' (96%) and 'cognitive development' (96%). The top barriers reported by respondents included 'teacher knowledge and/or confidence' (68%), 'crowded curriculum' (64%) and 'lack of understanding/ support from others' (38%). Participants in metropolitan areas were more likely to report 'lack of time' as a barrier and participants with less experience (0-10 years) were more likely to select 'children's behavior' as a barrier and less likely to select 'accessible for many students' as a benefit. While the perceived benefits of nature-based play and learning span multiple domains (cognitive, mental health and physical), practical barriers exist at the frontline of education. This suggests that the creation of nature play spaces alone may not be sufficient, highlighting the importance of education and ongoing support for school staff. This information will be used in subsequent research to inform the development of recommendations for implementing nature-based play and learning in primary schools. To overcome barriers, future research could focus on how best to empower educators with knowledge and information on incorporating nature-based play and learning into the school day.

Nature-based play and learning spaces in South Australian Primary Schools

Authors: Nicole Miller¹, Dr Katherine Baldock¹, As/Pr Saravana Kumar¹, Dr Karma Pearce¹

Affiliations: ¹*University Of South Australia*

Abstract:

Nature play spaces are becoming popular additions to primary schools in South Australia. However, despite their popularity, several knowledge gaps remain regarding their use and distribution. From August to December 2019, 52 staff from diverse South Australian public primary schools completed an online survey about the characteristics and use of outdoor spaces. Participants were predominantly female (92%), educators (65%), from metropolitan schools (56%). The survey focused on two types of spaces, purpose-built nature play spaces and natural spaces. Purpose-built nature play spaces existed in 63% of schools; a further 25% were under planning or construction. These spaces were reported to be used for play during break times (94%) or out of hours (79%), class activities (76%) and curriculum delivery (70%). This indicates flexible use of purpose-built nature play spaces for both play and structured activities. Natural spaces existed in 87% of schools and were used for play during break times (87%) or out of hours (62%), class activities (76%) and curriculum delivery (51%). While natural spaces were also used flexibly, there was less reliance on them out of hours and for curriculum delivery. The uptake of nature play spaces indicates the value and movement towards actively incorporating nature-based activities. No significant associations between the possession of a nature play space or natural space and school location (rural/metropolitan), student numbers or Index of Economic Disadvantage were identified. Analysis showed that economically disadvantaged schools were more likely to use their natural outdoor space out of hours and for class activities. This may be explained by research that suggests lower SES children spend more time in backyards and local streets, while higher SES children spend more time in structured activities. This familiarity may allow disadvantaged schools to take more advantage of natural outdoor spaces. Subsequent research will explore these findings through in-depth interviews.

2B – Global Health, Sustainability and Climate Change

On Demand from 9:30am AEDT

PHAA Policy on Mental Health and Climate Change

Authors: Dr Fiona Robards^{1,2}, Dr Erica McIntyre^{2,3}, Dr Peter Tait⁴

Affiliations: ¹The University Of Sydney, ²PHAA Mental Health Special Interest Group, ³University of Technology Sydney, School of Public Health, ⁴PHAA Ecology and Environment Special Interest Group

Abstract:

Context and aim: Climate disruption is already impacting our social systems and causing health impacts, prompt action is needed to safeguard population health and global health equity, including mental health and wellbeing. The risks to mental health from climate disruption are amplified by social, environmental and political factors, placing our most vulnerable people at greatest risk. Increasing community resilience is critical for mental health prevention and promotion, and central to helping people plan for and respond to from climate related disasters.

Methods: PHAA Mental Health and Ecology and Environment Special Interest Groups led the development of the policy with input from PHAA members.

Translational outcomes: An equitable, ecologically sustainable, and healthy world involves promoting mental health and wellbeing and respect for human rights. Research and policy needs to adopt a systems approach to mental health promotion and prevention. The mental health system must be build protective community resilience to disaster and become better equipped to meet surges in demand triggered by increasingly frequent natural disasters.

Future actions:

The Policy requests:

1. State and territory health systems explore school-based mental health promotion activities that build resilience for psychological adaptation to global warming and climate disruption.
2. Increased avenues for children and young people, and Aboriginal and Torres Strait Islander people, to have a voice on issues and public affairs related to global warming. This will help ensure meaningful collaborative design of the actions to be taken.
3. Evidence-based solutions that prevent and address the impact of climate disruption on health, and policy and programs that enable communities to respond and adapt to climate change, including those most vulnerable.

Learning Objectives:

1. Increase awareness of PHAA policies and advocacy.
2. Raise awareness of changes needed to promote mental health in the context of climate change.

A preliminary exploration of workplace mental health in the environmental sector

Authors: Mrs Sue Noy¹, Mr Jian Wen Chin¹, Dr Rebecca Patrick¹, Ms Teresa Capetola¹, Dr Claire Henderson-Wilson¹, Professor Tony LaMontagne¹

Affiliations: ¹Deakin University - School of Health and Social Development

Abstract:

Context and Aim: There is increasing evidence about the mental health impacts of climate change and environmental degradation. Research suggests that individuals working in the environmental sector are at heightened risk of negative mental health impacts associated with exposure to traumatic events, a sense of loss, and distress about the future. However, there is little research to support mental health in this unique workplace context. This project explored workplace mental health issues and existing strategies used by environmental organisations operating in Victoria.

Methods and Analysis/Research Findings: A qualitative case study approach guided the research design. Purposeful sampling was used to recruit three environmental organisations whose work ranged across climate and environmental advocacy, statutory responsibility for natural resource management, and conservation projects. Interviews were conducted with representatives from the organisations and were analysed using thematic and cross-case analysis techniques, along with inductive and deductive strategies. Interpretation was guided by the integrated workplace mental health approach and the Ottawa Charter. The challenges identified included resource and capacity shortages, i.e. stress associated with insecurities of funding and tenure; eco-anxiety; post-traumatic stress following recent bushfires; and the need for strategies specific to various job roles. Passion for the environment and hopefulness were found to aid resilience. Monitoring/evaluation and teambuilding were part of a broader approach to workplace wellbeing. Employee Assistance Program, which provides individual support, was the primary mental health strategy identified.

Translational Outcomes: This preliminary study contributes to the embryonic body of public health literature concerned with workplace mental health promotion specific to the environmental sector and is a starting point for further exploration of the sector's needs.

Future Actions: More research is needed to expand these findings. The initial findings and the interest shown by environmental organisations, offer opportunities to work collaboratively to develop holistic workplace mental health approaches for this sector.

A perspective on the effects of stress on decision making following disaster

Authors: Tiana Felmingham^{1,3}, Lee Collier², Andrew Brown³, Emily White⁴

Affiliations: ¹East Gippsland Primary Care Partnership, ²Lower Hume Primary Care Partnership, ³Deakin University, ⁴East Gippsland Shire Council

Abstract:

Context and aim: Many underlying factors influence each other during critical phases following a disaster and during the early stages of recovery. These factors can affect whole communities. The precise way they combine can significantly influence community stress and cohesive decision making, the way disasters and recovery are experienced, and ultimately affecting long term community outcomes.

Methods and analysis: Initial observations immediately after the experiences of bushfires in East Gippsland highlighted the importance of understanding how community stress, community leadership, and many levels of decision making form complex feedback loops that influence outcomes for the community. We have learned that we can positively impact factors and relationships between community input and leadership, trust, decision making and stress, effecting long term community outcomes.

Translational outcomes: Stock and flow diagrams have been used to visualise the relationships between major influences of stress and decision making, helping to see the bigger picture during disaster recovery. This is available for use by community decision makers, organisations, government departments and others in leadership roles and includes a variety of ways to apply this in practice.

Future actions: While these models have been tested amongst communities who have experienced disaster, they present one view. These models should be used, tested and refined by communities who have experienced disaster or other major disruption in other contexts to more completely understand decision making, stress and their major influences to strengthen the evidence base for community recovery.

Indigenous perspectives in disaster recovery and climate change adaptation

Authors: Bhiamie Williamson¹, Phoebe Quinn²

Affiliations: ¹Centre for Aboriginal Economic and Policy Research, Australian National University, ²Child & Community Wellbeing Unit, University of Melbourne

Abstract:

For better or worse, Indigenous peoples have become accustomed to living with catastrophic changes to their societies. Colonial legacies of eradication, dispossession, assimilation and racism continue to impact the modern realities of Indigenous peoples. In this way, settler-colonialism is both historical, and a lived experience. Furthermore, as distinct groups with deep and ancient attachments to their lands and waters, the impacts of climate change and disasters compound Indigenous people's trauma. Yet despite these particular experiences, Indigenous people's perspectives have been largely overlooked in responses to disasters and in the community recovery literature.

The ongoing effects of settler-colonialism have meant that Indigenous communities have become remarkably resilient, constantly adjusting and adapting to continue functioning. Furthermore, the unique and highly localised knowledge's Indigenous peoples possess makes them a key asset in climate change adaptation. What then, might the fields of disaster recovery and climate change adaptation learn from deeply engaging with Indigenous people's perspectives and partnering with Indigenous groups?

This presentation will highlight research being undertaken by a team of both Indigenous and non-Indigenous academics. This exploratory research examines the impacts of the 2019-2020 Black Summer bushfires on Indigenous peoples and considerations in supporting recovery. It also considers the contributions that Indigenous peoples may offer to the fields of disaster recovery, resilience and climate change adaptation, with particular attention to Indigenous notions of healing.

Climate change, indigenous peoples' health globally, and adaptation strategies: a review

Authors: Ms Olivia Maccora¹, Mr Kyle Lloyd¹, Mr Jeremy Bassar¹, Ms Shin Yi Yang¹, Ms Amanda Wingett¹, Dr Devin Bowles¹

Affiliations: ¹Australian National University Medical School

Abstract:

Context and aim: Climate change poses significant threats to the health of indigenous peoples globally, including Aboriginal and Torres Strait Islander people in Australia. Each indigenous culture is unique, with its own relationships with the natural environment, strengths and vulnerabilities. Nevertheless, many indigenous peoples have similar histories of colonisation and marginalisation, and share a more direct reliance on ecosystems for physical, social and emotional health than other groups. Indigenous peoples' adaptations may be enhanced by leveraging research by other indigenous groups.

Methods and analysis/research findings: We performed a systematic literature review of the effects of climate change on indigenous peoples' health. We synthesised three important considerations regarding the effects of climate change on indigenous populations: a summary of the mediating factors of climate change contributing to detrimental physical, mental and cultural effects within indigenous communities; adaptation strategies which have been proposed and implemented; and the global distribution of current research. Analysis of the physical, mental and cultural effects secondary to climate change revealed a vast range of highly interconnected effects. The majority of research into the effects of climate change on indigenous health originated from Arctic and Subarctic regions, with a modest amount of research conducted other parts of North America, as well as Australia and New Zealand.

Translational outcomes: Successful development and implementation of adaptation strategies relies on their being community-specific. They must also be independent or founded on a partnership that champions self-determination and empowerment to support cultural and traditional knowledge preservation. Government funding may be important, but is limited in low- and middle-income countries.

Future actions: A balance must be achieved between the necessity for governmental funding, indigenous peoples' representation and community involvement. Funding should be directed to redress important regional disparities. Absence of funding is an important limit to adaptation as a climate change response.

The Carbon Footprint of Pathology Tests

Authors: Mr Scott McAlister¹, Prof Alexandra Barratt², Dr Katy Bell², Dr Forbes McGain¹

Affiliations: ¹Centre for Integrated Critical Care, The University Of Melbourne, ²School of Public Health, The University of Sydney

Abstract:

Context and Aim: Climate change is damaging human health and threatening human populations through heatwaves, wildfires, and vector borne diseases to list a few aetiological pathways. Healthcare itself is carbon intensive, and so ironically is a significant contributor to the climate crisis which is harming human health: if global "healthcare" were a country, it would be the 5th largest green-house gas emitter. In Australia, healthcare is responsible for 7% of national greenhouse gas emissions. We aimed to measure the carbon footprint of five common pathology blood tests to help quantify healthcare's impact on population health through climate change. Our study is the first in the world to do this.

Methods and Results: We used life cycle analysis to quantify the carbon footprint (in carbon dioxide equivalent emissions, CO₂e) of five commonly ordered blood tests: full blood count and four biochemical tests including serum electrolytes. Data were collected within two university affiliated health services in Melbourne, Victoria. The estimated CO₂e emissions were equivalent to driving a standard Australian car between 3m and 770m (depending on the test) per blood test. While the greenhouse gas impact of individual blood tests is relatively small, 17.8 million haematology and 56.2 million biochemistry tests were funded by Medicare during 2018–19.

Translational outcomes: While some pathology tests contribute to improvements in human health (through effective preventive and therapeutic interventions), initiatives such as Choosing Wisely have identified contexts in which some blood tests do not improve health, and are over-requested. Reducing these unnecessary tests would lessen the carbon footprint of healthcare.

Future actions: Public health advocates should raise awareness of the significant environmental impact of healthcare itself, and encourage "Less is More" medicine in the public interest.

Impacts on Planetary Health of Australia's waste

Authors: Dr Peter Tait^{1,2}, Chia Howe Tan², Sarah Williams², Rewena Mahesh², Mitchell Evans²

Affiliations: ¹PHAA, ²ANU Medical School

Abstract:

Context and aim: Waste is the output of a non-circular production consumption economy. Australia's waste can be categorised into: food, solid, plastic, water, health sector (clinical and non-clinical), e-waste and commercial and industrial. Waste impacts ecological systems, animal and human health directly (toxins) and indirectly (loss of biodiversity and amenity). This study aimed to quantify waste in Australia, its effects on ecosystems, to assess its regulation, to identify areas for improvement and recommend improvements.

Methods and analysis/research findings: A narrative review of relevant peer-reviewed and grey literature from governments and NGOs was undertaken. One hundred and five peer reviewed, and 74 grey articles met inclusion criteria. Each waste stream was described under these headings: global waste profile, Australian waste profile, impact on planetary systems, policy framework. Key policies and gaps were identified for each waste category.

Australia's waste profile is extensive. Policy gaps were evident across all categories of waste and span all levels of government. Particularly health sector and e-waste are growing concerns that need introduction of suitable management policy.

Translational outcomes: This research recommends policy and practice to improve Australian waste management. The content and recommendations will inform a PHAA Policy to guide advocacy.

Future actions:

Recommendations for advocacy focus:

- Federal government leadership
- Stronger and enforced regulation
- Incentives to reduce and recycle
- Better data collection and tracking
- Coordinated policy across categories
- Better integration of waste streams

2C – COVID-19: Health and Wellbeing

On Demand from 9:30am AEDT

Direct and indirect effects of COVID-19 in Australia: what do we know?

Authors: Dr Lynelle Moon¹, Dr Anna Reynolds¹, Ass/Prof Sanjaya Senanayake²

Affiliations: ¹AIHW, ²Australian National University

Abstract:

Context and aim: COVID-19 has both direct and indirect effects on the population. We brought together available data to assess the first 4 months of the epidemic, comparing Australia's outcomes to other countries and examining initial data on the indirect effects on Australian's health and welfare.

Methods and analysis/research findings: Around 15% of cases were severe enough to require hospitalisation, with 3% in intensive care. Overall, 1.4% of cases died, with fatality rates higher at older ages: 3% for 65–79 year olds and 23% for those over 80.

People dying from COVID-19 would not have been expected to die soon without the disease. The deaths resulted in 14 (males) and 11 (female) years of expected life lost on average, using burden of disease methods. This is some years more than the 3 leading causes of death.

Australia contained the virus well over the first 4 months—saving lives and protecting the health system. If Australia had experienced the same case and death rates as Canada, Sweden or the UK, we would have had 8–14 times the number of cases, and 5,000–14,000 extra deaths.

Telehealth services set up in response meant total use of GP services did not reduce dramatically as feared—it was 4% higher than the same period last year.

Translational outcomes: The results were included in AIHW's biennial report 'Australia's Health' tabled in the Australian Parliament in July 2020. The restrictions implemented (e.g. border closures, physical distancing) were instrumental in containing the virus. Further, the indirect effects, which are just starting to be quantified, are likely to be long-lasting.

Future actions: Challenges remain given the virus is highly infectious and its effects serious. Outbreaks and restrictions to manage them are likely to continue for some time. Monitoring of the epidemic impacts continues, and further updates will be available.

Health communication in a pandemic: achievements and learnings

Authors: Ms Alice Pryor¹, Miss Evie Dartnell¹

Affiliations: ¹Parents' Voice

Abstract:

Introduction: Formerly known as The Parents' Jury, Parents' Voice was formed in 2004 by 12 parents and has since grown into a movement of over 10,000 Australian parents combining their voices to campaign for change to our obesogenic environments.

Context and aim: Co-morbidities such as obesity bring increased risk of severe coronavirus (Obesity Evidence Hub, 2020). Continuing good health behaviours is therefore important but made more difficult due to 'lock-down' restrictions. Parents, in particular, are having to juggle increased responsibilities and new barriers.

The 'Tips from Teddy' campaign was created to encourage and support parents and children to eat, sleep and move well.

Methods and analysis: The 'Tips from Teddy' campaign was launched on Instagram and ran for 21 days straight offering parents healthy tips related to three core topics: healthy eating, physical activity and wellbeing.

The campaign had two primary objectives: 1. To inform parents in a fun and engaging way (using a teddy), and 2. Get parents to participate in the activities, encouraged via a social media competition.

Translational outcomes: Participation in the competition was low, parents reported that being asked to participate via posting their own photos on social media placed unnecessary burden on them.

This lack of participation mirrors difficulties in engaging low socio-economic communities in obesity prevention campaigning. As people with uncertain housing, food access and security have an understandably higher barrier for participation.

The participants' feedback and Instagram metrics also revealed that during a crisis parents preferred to receive peer-led, supportive health information even if they were unable to act immediately.

Future actions: Communicating in a crisis needs to focus on providing information, reassurance and support via tailored approaches that avoid unnecessary calls-to-action.

Further work will apply these learnings to intersectional campaigning with communities that experience participation barriers and health inequities.

Community Health in Public Health Emergencies: Lessons from Regional North East Victoria

Authors: Mr Joseph Lumanog¹, Ms Jacki Eckert, Ms Kylie Gillison, Mr Jarryd Williams

Affiliations: ¹*Gateway Health*

Abstract:

The Ovens Murray region of Victoria thrives on diversity across the district's many characteristics, with strong potential for sustainable improvements in population wellbeing. Yet, in 2020 the combined public health emergencies of climate change, widespread bushfires, and COVID-19 threaten to exacerbate long-running systemic barriers and disadvantages common to regional areas. The key task facing the regional public health system, particularly community health organisations, is to respond to these public health emergencies with the required capacity and scale, whilst providing mainstream healthcare and support services to those with the highest risk of poor health.

Gateway Health is a registered Community Health Service delivering a range of primary health care and support services across North East Victoria and into Southern NSW. Services include medical practices, allied health, refugee health and sexual health; health promotion; alcohol and other drug services including home-based withdrawal; chronic disease management; Indigenous programs; aged care services including assessment; NDIS services; counselling services, family violence, men's behaviour change, Gambler's Help; and mental health programs including headspace, youth services, young parenting and family support programs. Currently, Gateway Health also delivers bushfire recovery case management support to families affected by the 2019/2020 bushfires across six LGAs, and is working with these communities to help build sustainable food systems and community resilience. Finally, whilst North East Victoria has been spared from its worst impacts, COVID-19 has added an unprecedented layer of complexity and uncertainty to the regional health delivery system already under pressure.

In this context, this paper articulates emerging lessons in population health approaches in regional and rural areas, drawing specifically from the ongoing work of Gateway Health in health promotion, bushfire recovery, AOD, and family violence. The paper concludes with initial insights on the transformations required to adapt to and find opportunity in the so-called 'new normal'.

Mental health during COVID-19: What is the role of technologies?

Authors: Ms Huong Ly Tong¹, Ms Sandrine Chan Moi Fat¹, Ms Georgina Kennedy², Dr Liliana Laranjo^{1,3}, Dr Juan Quiroz^{1,2}

Affiliations: ¹*Macquarie University*, ²*University of New South Wales*, ³*University of Sydney*

Abstract:

Context and aim: Restrictions due to COVID-19 caused many people to seek out technological solutions for mental health support. This qualitative study aims to understand the impact of these restrictions on the mental health of young adults, and how they used technologies as coping strategies.

Methods and analysis: We conducted semi-structured interviews in May 2020 with young adults aged 18 to 30 years in Sydney, Australia. Participants discussed their mental health and use of technologies as coping strategies during COVID-19 outbreak. Transcripts were analysed using thematic analysis techniques.

Of 23 participants; 16 (70%) were women and the mean age was 22 years. All participants mentioned negative mental health impact. Participants cited personal, social and environmental causes, including lack of physical activity, disrupted routines, limited in-person interactions, financial insecurity, and uncertainty of the future. In order to cope, participants used several technologies such as mobile apps to track or try new exercises, or video calls to connect with family and friends. Some mentioned the need for a virtual health assistant to help establish a routine, perform mental health check-ins, and prompt reflection. However, participants also mentioned struggling to find a mobile app that worked for them due to the wide range of available apps.

Translational outcomes: While current health practices have outlined several strategies to support mental health for young people (e.g. stay active, establish new routines), specific suggestions are lacking on how to implement those strategies. Technologies can provide specific recommendations and support. Despite their potential, there are concerns regarding their effectiveness and safety.

Future actions: Young adults' use of technology to support mental health has increased during the COVID-19 outbreak. Thus, it is essential for the public health sector to identify and recommend a list of effective and safe health technologies to provide young people with much needed support.

Physical activity during the COVID-19 pandemic: The role of digital platforms

Authors: Dr Kate Parker¹, Dr Riaz Uddin¹, Dr Helen Brown¹, Associate Professor Nicola D. Ridgers¹, Professor Ralph Maddison¹, Associate Professor Kim Toffoletti², Mr Samuel Cassar¹, Professor Jo Salmon¹, Professor Anna Timperio¹, Associate Professor Jenny Veitch¹, Dr Shannon Sahlqvist¹, Dr Lauren Arundell¹

Affiliations: ¹*Institute For Physical Activity And Nutrition, Deakin University*, ²*Deakin University, School of Humanities and Social Sciences*

Abstract:

Context and aim: Government responses to managing the COVID-19 pandemic may have impacted the way individuals were

able to engage in physical activity. Digital platforms are a promising way to support physical activity levels and may have provided an alternative for people to maintain their activity while at home. This study explored the use of digital platforms for physical activity among adults and adolescents during the 'stay at home' restriction phase.

Methods and analysis/research findings: The Our Life at Home study investigated the impact of the pandemic on movement behaviours of Australians in May 2020 via an online survey. Participants (adult n=1191, 82% female, mean age=37.4±15.1 years; adolescent n=961, 71% female, mean age=16.2±1.2 years) recorded their demographic characteristics, use of digital platforms for physical activity and adherence to the moderate-to-vigorous physical activity (MVPA) and muscle-strengthening guidelines. Multilevel logistic regression models examined differences in adherence to the guidelines between those who used (users) digital platforms for physical activity compared to those who did not during this time (non-users).

Overall, 40% of adults and 27% of adolescents reported using digital platforms for physical activity. Among adults, the odds of guidelines adherence were 2.1 (1.7-2.8) for MVPA, 3.7 (2.9-4.8) for muscle-strengthening and 3.2 (2.3-4.3) combined, among digital platform users relative to non-users (referent group) respectively. Among adolescents, the odds of MVPA, muscle-strengthening and combined guideline adherence was 2.4 (1.4-3.9), 3.3 (2.4-4.5) and 4.9 (2.4-9.9) respectively among digital platform users relative to non-users.

Translational outcomes: Findings suggest digital platform users were more likely to meet physical activity guidelines. However, users may have also been more active prior to COVID-19.

Future actions: There is a need for further exploration of the use of digital platforms to promote physical activity, especially for those who may have limited access to facilities for physical activity outside the home.

Physical activity and sedentary behaviour during the COVID-19 pandemic: An Australian population study

Authors: [Dr Breanne Kunstler¹](#), [Peter Slattery¹](#), [Emily Grundy¹](#), [Denise Goodwin¹](#), [Alexander Saeri¹](#)

Affiliations: ¹*Behaviourworks Australia, Monash Sustainable Development Institute, Monash University*

Abstract:

Context and aim: Australian adults rarely meet physical activity (PA) and sedentary behaviour (SB) guidelines. Meeting the guidelines could be more difficult during a pandemic. This survey explored the PA levels and SB of Australian adults during the COVID-19 pandemic.

Methods and analysis/research findings: 1,084 adults participated in the survey. The majority of respondents did not meet the aerobic (n=756, 70%) or strength (n=649, 60%) components of the guidelines. However, participation in strength activities was greater than that observed in studies conducted outside of the pandemic. The majority of respondents (n=609, 58%) participated in low sedentary time (<9hr/day). However, participation in SB was still greater than that observed in studies conducted outside of the pandemic. Young adults participated in less aerobic activities (e.g. walking) but more strength activities and SB compared to older adults. Fewer respondents from regional Australia met the aerobic and strength PA guidelines compared to city dwellers. However, they also participated in less SB.

Translational outcomes: The context of the COVID-19 pandemic might facilitate participation in strength training and SB but be a barrier to participating in aerobic activities. The introduction of online home exercise classes promoting strength training that can be completed without leaving home might have made participation in strength training easier, especially for younger adults, while home restriction limitations made participation in aerobic activities harder. The promotion of streaming services and meal delivery services might have facilitated SB.

Future actions: These findings can be used to develop future strategies to make it easier for people to participate in PA outside of the pandemic. The introduction of online exercise classes can be used outside of the pandemic to facilitate PA participation, particularly in strength training. However, the influence of commercial organisations and convenience on SB should be further explored as having a detrimental influence on SB.

2D – COVID-19: Screening and Contact

On Demand from 9:30am AEDT

Transmission and responding to COVID-19 in non-healthcare occupational settings

Authors: Dr Sarah Khanlari^{1,2}, Mr Travers Johnstone^{1,2}, Professor Natasha Nassar^{1,2,3}, Ms April Roberts-Witteveen^{1,4}

Affiliations: ¹COVID-19 Public Health Emergency Operations Centre, NSW Ministry of Health, ²School of Public Health, Faculty of Medicine and Health, The University of Sydney, ³Children's Hospital at Westmead Clinical School, ⁴Australian Institute of Health and Welfare

Abstract:

Context and aim: Cases of COVID-19 in high risk settings, such as healthcare facilities receive considerable public attention, however non-healthcare occupational settings create the conditions for large numbers of contacts and spread. Occupational assessments are undertaken when case follow-up demonstrates an overlap of the case's infectious period with time spent at work. Cases are considered infectious 48 hours prior to symptom onset and those with mild or asymptomatic illness may unintentionally expose co-workers. We describe non-healthcare occupational outbreaks reported to the NSW COVID-19 Public Health Emergency Operations Centre.

Methods and analysis: The NSW Notifiable Conditions Information Management System was reviewed to identify clusters and outbreaks associated with non-healthcare occupational settings. Outbreaks were defined as 2 or more cases of COVID-19 where transmission was most likely to have occurred in the occupational setting. Clusters were defined when case interview determined close occupational contacts but did not result in ongoing transmission. Workplaces were defined as settings attended for paid or volunteer employment, excluding healthcare, cruise-ships or aeroplane settings. We report outbreaks and clusters between 1 January and 30 September 2020, and describe factors associated with these settings including epidemiological and environmental characteristics.

Translational outcomes: Understanding transmission in non-healthcare occupational settings provides important evidence to guide prevention and control strategies. Lessons learned from early events have led to the development of policies aimed at minimising spread throughout the workplace, household and community.

Future actions: Most COVID-19 cases have occurred in people of working age, and as such occupational settings present the conditions for outbreaks and extended transmission chains in the community. Occupational settings require specific guidance that should be based on understanding the characteristics associated with spread and to inform future response strategies.

Investigation, response, and learnings from a COVID-19 childcare centre outbreak, Sydney, NSW.

Authors: Dr Anthea L Katelaris¹, Dr Helen E Quinn^{2,3}, Dr Archana Koirala^{2,3,4}, Dr Lucy Deng^{2,3,5}, Ms Noni Winkler^{2,6}, Dr Rebecca J Rockett^{7,8}, Dr Nicholas J Wood^{2,3,5}, Prof Kristine K Macartney^{2,3,5}, Dr Shopna K Bag¹

Affiliations: ¹Western Sydney Public Health Unit, ²National Centre for Immunisation Research and Surveillance, ³The University of Sydney, Faculty of Medicine and Health, ⁴Nepean Hospital, ⁵The Children's Hospital at Westmead, ⁶Australian National University, Research School of Population Health, ⁷Centre for Infectious Diseases and Microbiology - Public Health, Westmead Hospital, ⁸Marie Bashir Institute for Infectious Diseases and Biosecurity, The University of Sydney

Abstract:

Context and aim: The transmission potential and risk factors for COVID-19 within Early Childhood Education and Care (ECEC) settings is unclear. We aimed to examine these issues during the response to an outbreak of COVID-19 in a Sydney ECEC in March 2020.

Methods and analysis/research findings: We initiated enhanced investigations, including PCR, serology and genomics, of all exposed staff and students.

Twenty-nine cases were detected: 14 cases in staff (n=7) and children (n=7) (attack rate n=14/38, 37%), and 15 household cases. Three child cases were asymptomatic. There was evidence of transmission between staff, and from staff to children. There was no definitive evidence of transmission from children within the ECEC.

Transmission was found to have occurred for at least 11 days prior to index case notification.

Translational outcomes: The ECEC was closed for two weeks and transmission ceased.

COVID-19 transmission in ECECs had not previously been reported in Australia, and was not found in nine other ECECs in NSW where cases occurred. This investigation highlights that ECECs outbreaks may occur, requiring robust prevention and control measures.

Subsequent guidelines have incorporated recommendations to address risk factors identified through this outbreak.

Future actions: Early case detection is key. This requires broad testing, supported by 'stay home if sick' messaging and access to paid sick and carer's leave for all employees.

The risk of transmission within ECECs can likely be mitigated through enhancing hygiene and cleaning measures, staggering staff breaks, avoiding class mixing, and physical distancing of parents and staff. If a case occurs, the whole ECEC may need to be

considered close contacts, based on ECEC size, structure, class overlaps, and the potential for unrecognised transmission. ECECs should be supported in implementing strategies to reduce the risk of COVID-19 introduction and transmission, to enable them to operate safely in the COVID-19 context.

Assessing COVID-19 transmission risk in high-density, open-plan workplaces - a case report

Authors: Katherine Todd¹, Shelley Thompson²

Affiliations: ¹Central Coast Public Health Unit, NSW Health, ²Ministry of Health

Abstract:

As an emerging disease of pandemic proportions, there remains gaps in our understanding of the infectiousness, transmission modes, and the amount and type of contact needed to result in an infection with SARS-CoV-2 in many settings, including workplaces. This in turn leads to gaps in knowledge around appropriate thresholds of transmission risk, and the public health response required.

We describe the assessment and management of workplace contacts of a confirmed COVID-19 case who worked several days in a large, open-plan call centre whilst potentially infectious. Several risk characterisation strategies were considered. Taking a conservative approach, any staff member who had been exposed to the case during their infectious period was considered a close contact (n= 159). These contacts were required to isolate for 14 days from their last exposure to the case and get tested should they develop symptoms. Despite the prolonged exposure period and open-plan layout, no secondary infections were identified from this workplace.

The absence of secondary cases may indicate that strict application of preventive measures, including physical distancing and enhanced hygiene, reduces transmission of COVID-19. In the current climate in New South Wales of minimal community transmission and high capacity for public health intervention, a conservative approach to risk assessment is prudent; in the future, using a “concentric circles” approach or assessing the hierarchy of exposure in open-plan workplaces may be a safe and proportionate alternative framework for identification of close contacts.

This workplace implemented a multifactorial risk reduction strategy to minimise the impact to the workplace, should a COVID-19 positive case arise. These measures present a practical and feasible risk mitigation strategy and should be considered in both small and large workforces to minimise the risk of COVID-19 transmission.

Embedding an Aboriginal Cultural Support Model for COVID-19 Case and Contact Management: a local response

Authors: Ms Hannah Briggs⁴, Ms Tammy Buckland¹, Ms Kristy Crooks^{1,2}, Ms Kylie Taylor³

Affiliations: ¹Hunter New England Local Health District, Population Health, ²Menzies School of Health Research, Charles Darwin University, ³Hunter New England Local Health District, Population Health, ⁴Hunter New England Local Health District, Integrated Care for Aboriginal Peoples Program

Abstract:

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

Aboriginal and Torres Strait Islander people were disproportionately impacted by the 2009 H1N1 pandemic and experienced higher rates of hospitalisations, ICU admissions, and complications from influenza. Additionally, Aboriginal and Torres Strait Islander people were excluded from pre-2009 pandemic plans in the development of culturally appropriate public health measures, and responses were not led and governed by Aboriginal and Torres Strait Islander peoples.

Hunter New England Public Health Aboriginal staff developed an Aboriginal Cultural Support model to provide additional holistic care for COVID-19 case and contact management. The team partnered with the Aboriginal Health Unit and Integrated Chronic Care for Aboriginal Peoples Program to lead the implementation in the COVID-19 response.

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]:

The Aboriginal Cultural Support model was embedded into the Public Health COVID-19 response. A small working group was established to plan, prepare and support the management of confirmed cases and contacts who identify as Aboriginal and Torres Strait Islander. Aboriginal Cultural Support is offered in addition to routine public health welfare and management. The model is supported by training and resources, builds capacity of the Aboriginal workforce, and strengthens relationships.

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

The role of Aboriginal public health leaders and practitioners are critical in determining the appropriate and supportive response processes in collaboration with other units. The team works within an equity framework. This model provides Aboriginal and Torres Strait Islander COVID-19 cases and contacts with cultural support and care, in addition to routine public health management and follow-up welfare support.

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

This work showcases the leadership of Aboriginal staff in developing a culturally appropriate response to confirmed cases and contacts of COVID-19. This model can be replicated by other units.

<Presenters of research focusing on particular Aboriginal and Torres Strait Islander communities are to provide with their abstract an additional paragraph outlining whether the relevant community/ies have provided permission to publicise the research findings. An additional 50 word paragraph is permitted in addition to the 300 word maximum.>

This work is led by Aboriginal people, and approved by the Hunter New England Public Health Aboriginal Team, and Aboriginal staff working in collaboration in the response.

Infection Control Behaviour of Dental Workers in Saudi Arabia during COVID-19 Pandemic

Authors: Dr. Mosa Shubayr^{1,2}, Dr. Mohammed Mashyakh⁴, Dr. Dania Al Agili³, Dr. Nassreen Albar⁴, Dr. Faeq Quadri²

Affiliations: ¹*School of Human Science, The University Of Western Australia*, ²*Department of Preventive Dental Sciences, College of Dentistry, Jazan University*, ³*Department of Dental Public Health, Faculty of Dentistry, King Abdulaziz University*, ⁴*Department of Restorative Dental Sciences, College of Dentistry, Jazan University*

Abstract:

Context and aim: Dental settings could be a potential source of cross-infection. The aim of this study was to identify the important predictors of the dental health care workers (DHCW's) intention towards COVID-19 Infection Prevention and Control (IPC) in Saudi Arabia.

Methods and analysis/research findings: An online cross-sectional questionnaire was sent to DHCW's in Saudi Arabia using convenience sampling technique. The questionnaire collected data on demographic characteristics and the 43 items from TPB construct. One-way ANOVA and t-test were used to establish factors associated with TPB construct scores. Multiple regression analyses with adjusted effects to identify the significant predictors for the intention, from the attitude, subjective norm, and perceived behavioural control variables. With the mean of 41.60 (SD = 6.26) it was evident that the study participants had a favourable attitude towards COVID-19 IPC. The subjective norm and perceived behavioural control subscales scores were low with the mean values of 28.95 (SD=5.44) and 34.89 (SD= 6.49), respectively. The constructs of attitude towards behaviour ($p < 0.001$), and subjective norm ($p < 0.001$) significantly predicted the DHCW's intention to COVID-19 IPC behaviour and they accounted for 44.3% of the variance.

Translational outcomes: This study will provide baseline measures for future investigations for academicians and practitioners, alike. Further, it is hoped that the findings of this study will benefit DHCW's by enhancing the scope of IPC practice and related policies. This enhancement will reflect on improving dental service quality and safety in the KSA.

Future actions: It is recommended that comprehensive educational and training programs on infection control pertaining to COVID-19 be implemented among the DHCW's in Saudi Arabia so that their attitude and behaviour towards infection prevention be amplified.

Wednesday 21 October 2020

P1 - E-Poster Presentations

3:30pm – 4:00pm AEDT

The early epidemiological parameters of covid-19; what did we know when?

Authors: Keeley Allen¹, Amy Parry¹, Kathryn Glass¹

Affiliations: ¹*Australian National University*

Abstract:

Context and aim: The emergence of a new pathogen requires a rapid assessment of its transmissibility to inform appropriate public health interventions. Summarising the emerging evidence to date from the COVID-19 pandemic provides an opportunity to assess our knowledge of epidemic parameters and how they change over the course of an outbreak.

Methods and analysis: A systematic review of peer-reviewed literature published up until 30 April 2020 was undertaken through the PubMed database. This review focused on identifying estimates of the incubation period, serial interval, and reproduction number for COVID-19. A total of 86 studies met our inclusion criteria. The mean incubation period was estimated to fall between 4 and 7 days based on 33 studies. Fifteen studies included estimates of the serial interval. Mean estimates ranged from 4 to 8 days while the median length was estimated to be 4-5 days. A total of 52 studies estimated the reproduction number. While the published reproduction number estimates varied from 0.3 to 14.8, 33 estimates fell between 2 and 3.

Translational outcomes: The calculated incubation period has remained stable over time and between different settings, reinforcing early requirements for a 14 day quarantine period. However, estimates of the serial interval and effective reproduction number are setting specific. Estimates of the serial interval have generally shortened over time as increasing evidence of potential pre-symptomatic transmission is documented and as jurisdictions enact outbreak control measures. Estimates of the effective reproduction number vary considerably depending on the setting and assumption used to build the model.

Future actions: Early analysis of epidemic parameters can provide vital information to inform an outbreak response and this study points to the ongoing challenge and ever-present need for outbreak investigations and research to be both timely and frequently updated to provide the best evidence.

Selling handwashing- the Australian Government's COVID-19 campaign through a social marketing lens

Authors: Ms Lilian Chan¹, Dr Blythe O'Hara¹, Associate Professor Philayrath Phongsavan¹, Professor Adrian Bauman¹, Dr Becky Freeman¹

Affiliations: ¹*University of Sydney*

Abstracts:

Context and aim: Currently the most effective strategies against COVID-19 (frequent handwashing and social distancing) require population-wide behaviour change. Governments need to persuade populations to adopt voluntary behaviours, and social marketing has been proposed for public health pandemic campaigns. This research analyses the strengths and limitations of the Australian Government's COVID-19 campaign through a social marketing lens.

Methods and research findings: This research adapted principles (Kotler 1971 and 2002, Jones and Iverson 2012) to develop a social marketing framework relevant to pandemic campaigns, and collected information from government public communication channels and media articles. This process generated a practical approach to identifying pandemic campaign elements, which can also be used for future pandemic campaigns.

The Australian Government's COVID-19 campaign included clear behaviour change objectives, communicated in easy-to-understand language, and used diverse paid media channels. Utilising a social marketing lens, we identified further factors that contributed to the campaign's impact. These included accessible testing centres (correlating with 'place') and announcing financial supports to reduce perceived costs of lockdown (addressing 'price'). The COVIDSafe smartphone app is a 'tangible' product supporting behaviour changes; however this had a low uptake probably associated with trust issues. Key limitations of the Government's approach include insufficient attention to specific populations, limited engagement with partners to help promote the campaign, and difficulties positioning itself as the primary trusted voice amidst a crowded media space.

Translational outcomes and future actions: As the COVID-19 pandemic evolves, the Australian Government needs to continuously evaluate and flexibly improve its campaign activities and target specific populations. In preparing for potential future pandemics, this case study identified key challenges of pandemic campaigns in the era of fast-paced and ever-changing information. In future, developing generic and adaptable pandemic campaign strategies and continuing to build a trusted voice are important for public health response preparedness.

Using behavioural science to prioritise COVID-19 tests in New Jersey

Authors: Dr Breanne Kunstler¹, Associate Professor Peter Bragge¹, Professor Liam Smith¹, Dr Peter Slattery¹, Dr Alexander Saeri¹, Ms Wing Hsieh¹

Affiliations: ¹*Behaviourworks Australia, Monash Sustainable Development Institute, Monash University*

Abstract:

Context and aim: Testing for SARS-CoV-2 infection is necessary to identify people infected with the virus and control community spread. Testing kits are in huge demand in areas with large infection rate and spread, such as the USA, meaning preserving testing kits for those who need them is necessary. In March, 2020, the GovLab in New York engaged BehaviourWorks Australia to advise on ways to discourage people who do not need testing from attending COVID-19 testing centres in New Jersey.

Methods and analysis: A team of nine behavioural scientists at BehaviourWorks Australia convened a one-hour online idea-a-thon to identify the behaviours underpinning the problem; prioritise those behaviours; and identify strategies to discourage people who do not need testing from attending COVID-19 testing centres. These strategies included: reduce anxiety by filling the 'information gap'; explain why the person might not need a test at this time based on their individual data; and encourage the wanted behaviour (i.e. avoid testing centres if the screening tool suggests that they do not require testing, but use the tool again if symptoms change).

Translational outcomes: The GovLab used the findings to inform the development of an online screening tool published online within 24-hours for use by New Jersey residents to determine if they should get tested. The screening tool was used >60,000 times within 12-hours of the governor, Gov. Phil Murphy, announcing its availability to the public. This equated to one in every ten website visitors accessing the tool.

Future actions: Government interventions should be based on sound behavioural science before design and implementation. Ensuring that the messaging within the COVID-19 screening process is based on behavioural science may have prevented many New Jersey residents requesting testing who did not require it - saving precious and limited resources for those who needed them most.

Complementary antioxidant medicine in COVID-19 management and the place of haematology evaluation

Authors: Dr Ezekiel Nwose¹, DR Phillip Bwititi²

Affiliations: ¹*School of Community Health, Charles Sturt University*, ²*School of Biomedical Sciences, Charles Sturt University*

Abstract:

Context: Complementary treatment regimens such as herbs are used in homes for management of illnesses including infections. However, complementary medicine options for COVID-19 are yet to be clearly articulated, especially with regard to geriatrics and laboratory monitoring of the pharmacodynamics effects. **Aim:** To articulate herbal remedies for COVID-19 in geriatrics and the role of haematology evaluation e.g. blood cell counts in non-symptomatic COVID individuals.

Methods and analysis/Findings: Two review methods were employed to develop the phenomenology of herbal treatment of infections.

- First, social media article and refereed research journals were critically reviewed. Knowledge on treatment options are used to substantiate potential implications for geriatric care and haematological tests in asymptomatic patients. **Findings:** This narrative articulates alternatives to vaccination, COVID-19 treatment roadmap, reason why children have milder symptoms, and geriatric-versus-asymptomatic individuals' need for haematology since this is altered in COVID-19 and DIC is a complication of COVID-19.

- Second, a brief scoping review focused on the question "if medicines we already have are good enough to buy patients more time". **Findings:** Antioxidant naturopathy for COVID-19 management. What has yet to be authenticated, which constitutes the contribution of this article, is that immunocompromised status of geriatric clients underlies unavoidable burden of frailty. This contraindicates at least 25% of COVID-19 vaccines being researched and warrants caution in consideration of anti-inflammatories that constitute 52% of drugs currently being developed.

Translational outcomes: Most people take herbs in one form or another e.g. herbal sauna, tea, spices in food, leafy vegetables, etc. Perhaps, the translational reflective question is: what do "herbs" actually do during infection and how can the effect be measured?

Future actions: Geriatric clients can benefit from complementary medicines such as herbs, which have antioxidant and immunomodulation properties. Further, routine haematology vis-à-vis full blood count is also indicated in asymptomatic COVID-19 individuals.

Impacts of the COVID-19 pandemic on University students: a qualitative study

Authors: Associate Professor Seema Miharshahi¹, Dr Rimante Ronto¹, Dr Josephine Chau¹, Professor Janaki Amin¹

Affiliations: ¹Department of Health Systems and Populations, Faculty of Medicine, Health and Human Sciences

Abstract:

Context/Aim: Anecdotally the COVID-19 crisis caused considerable stress for University students. Our aim was to use the social determinants of health framework to describe the experiences of students during the COVID-19 crisis in Sydney, Australia.

Methods/Analysis: Students enrolled in a Master of Public Health at Macquarie University were asked to submit written reflections on their experience over the last semester using the social determinants of health framework. Thematic analysis was used to categorise statements under the framework domains.

Research Findings: Of 104 students a total of 22 (19 international, 3 domestic) had submitted reflections and consented at the time of writing. Impacts on learning and University life: 80% of students stated that the transition to online mode had affected their learning ability and performance, specifically - negatively impacting motivation and focus and led to missing deadlines. Lack of interaction with peers and not having access to library and study areas were also major challenges. Social isolation was mentioned by 50%, students missed 'campus culture' and the opportunity to make new friends. International students said the crisis 'took away the chance to experience Australian culture' and some (n=4) said they were worried for their family back home. Impact on living/working conditions: 30% experienced job loss leading to financial difficulties, particularly with accommodation/rent. 50% of students stated that the uncertainty and confusion caused by the crisis had an impact on their mental well-being causing depression, anxiety and symptoms like insomnia. Positive aspects of the crisis included 'cementing an independent learning style' and 'learning that it was OK to ask for help'.

Translational outcomes/future action: findings will be used to further support students in learning and socialisation in Semester 2, including greater scaffolding and notification of assessment and learning tasks, integration of socialisation activities and improving accessibility to well-being services.

Art therapy and the Covid-19 pandemic - public mental health and well-being.

Authors: Mrs Deborah Hilton¹

Affiliations: ¹Deborah Hilton Statistics Online <http://sites.google.com/site/deborahhilton/>

Abstract:

Context and aim: Hilton published a manuscript [2020] titled; Do researchers have their heads in the clouds, bogged down with scientific medical detail? [art therapy maybe a simpler alternative]. It discusses how a diagnostic pathway maybe crucial to eliminate sinister reasons for stress [example insomnia possibly caused by sleep apnoea where breathing stops during sleep]. In many cases of stress, depression, and/or anxiety - job, work, family, financial stress or reasons such as Covid-19 maybe causal. Art therapy maybe an alternative option and Hilton's manuscript lists seven publications [either review, meta-analysis, clinical trial or case study] providing evidence.

Methods and analysis/research findings: The Australian yellow pages online directory was searched - search terms [art therapist/s and/or art therapy]. One hundred and seven hits were retrieved, twenty-one were art therapists with email [others were massage therapy, counselling, psychotherapy, or alternative therapies]. These twenty-one were emailed details of the manuscript, in addition to being asked 'Are you currently doing any art therapy work with clients related to the Covid-19 pandemic?'. Follow up phone calls were made. Five email addresses and/ or phone numbers were invalid or disconnected. Seven people replied stating 'yes' while three replied stating 'no'. Six did not reply.

Translational outcomes: The results suggest some art therapists are consulting with clients with covid-19 related stress, anxiety or depression. Art therapy works created maybe displayed at exhibitions such as the black dog art exhibition that focuses on depression and anxiety. This year Hilton is entering an art creation, a suited mannequin, surrounded by protective masks, gloves, sanitiser, eyewear and signage depicting outrage associated with; Wuhan whistle-blower Doctor [Dr. Li Wenliang] an ophthalmologist arrested for rumourmongering, altering people of potential serious outbreak. He subsequently died of coronavirus.

Future actions: World Mental Health and RUOK days should incorporate messages about art therapy effectiveness.

Thursday 22 October 2020

3A – Rapid Fire – COVID-19 Public Health Action

On Demand from 9:30am AEDT

Field responses to COVID-19

Authors: Dr Anthony Zheng¹, Dr Laksmi Govindasamy¹, Ms Paola Garcia¹, Dr Tara Smith¹, Dr Chaturangi Yapa¹, Dr Ming Chen¹, Ms Debbie Chia¹

Affiliations: ¹NSW Ministry Of Health

Abstract:

Context and aim: As of June 2020, NSW Health has conducted substantial fieldwork as part of the public health response to some of Australia's largest COVID-19 clusters, typically involving rapid deployment of public health staff from NSW's Public Health Emergency Operations Centre (PHEOC) to investigate newly notified cases.

This presentation describes key learnings, captured in our Standard Operating Procedure for COVID-19 Fieldwork (SOP), from fieldwork in multiple COVID-19 outbreak settings, including aged care facilities, schools, workplaces, cruise ships, and in managing returned travellers through airport screening and enforced, hotel-based quarantine.

Methods and analysis/research findings: PHEOC's initial approach to fieldwork rested on the principles of infection prevention and control, a commitment to staff safety and support through an Incident Command System, and on effective risk assessment and situation management in real-time.

The SOP was developed in a necessarily iterative way, as our understanding of COVID-19 transmission and clinical characteristics continued to evolve. The SOP systematises key learnings around effective training and preparation, managing stakeholders and difficult situations, and having a well-supported briefing and debriefing processes.

Translational outcomes:

Key activities have included:

- staff training in personal protective equipment use,
- preparation of appropriate field kits and infection prevention and control protocols,
- staff training in situational management,
- developing action checklists for field staff, and
- debriefs guided by senior staff and a psychology service.

Future actions: Our SOP should be distributed and field-tested in novel outbreak settings. NSW Health will continue to improve our SOP by collating learnings through debrief sessions as we continue to undertake fieldwork related to COVID-19.

Airport Screening for COVID-19: the NSW Experience

Authors: Dr Laksmi Govindasamy¹, Dr Anthony Zheng¹, Ms Elizabeth Ryan², Mr Anthony Cook², Dr Jo Karnaghan², Dr Sean Tobin¹

Affiliations: ¹NSW Ministry Of Health, ²South Eastern Sydney Local Health District

Abstract:

Context and aim: Working closely with the Commonwealth's Biosecurity Officers and under the Biosecurity Act 2015 (Cth), NSW Health supported airport screening activities as part of a suite of strategies to control COVID-19.

Published literature and media reporting on airport screening for COVID-19 typically focus on the screening process's ability to exclude cases from entering the country. However, airport screening has utility beyond identifying and excluding cases. This presentation describes key learnings on managing returned travellers through a screening process.

Methods and analysis: NSW's airport screening is part of a stepwise approach to pandemic response, and always part of a suite of strategies that has included:

- international border restrictions,
- home isolation or quarantine of returned travellers,
- high levels of testing, and
- strong contact tracing.

Our approach evolved with our understanding of SARS-CoV-2 and as our testing capacity increased.

Translational outcomes: NSW's airport screening conferred a range of benefits, beyond identifying those who are unwell.

A key intervention alongside screening was empowering arriving travellers with public health information and infection prevention and control advice, in appropriate languages, and orientation to the NSW Health system. This included providing information on accessing testing and that free healthcare is provided universally for COVID-19. We also provided masks to support home isolation at a time of mask scarcity.

We believe that airport screening also confers broader benefits beyond to screened arrivals. It is a highly visible signal to NSW residents and other travellers that the pandemic should be treated seriously. Screening has been a basis for dialogue with communities.

Future actions: Key lessons for future rapid staff deployments include deploying appropriately trained staff with appropriate PPE and logistics and language interpreter support. Future approaches should prioritise safety measures, including social distancing, and efficiency considerations including testing of symptomatic arrivals.

COVID-19 Northern Australian public health response impact on services and future workforce

Authors: Narelle Campbell¹, Chris Rissel¹, Ruth Barker², Kylie Stothers³

Affiliations: ¹Flinders University, ²James Cook University, ³Indigenous Allied Health Australia

Abstract:

The Context: The comprehensive and pro-active public health biosecurity response to COVID-19 in northern Australia has saved lives in remote and rural Aboriginal and Torres Strait Islander communities. However, the travel restrictions and strict quarantine of remote and rural communities has also reduced access of communities to various services, including health services.

The COVID-19 public health response decimated health professional student placements. Placement learning is critical in health professional education and importantly is often used by health services as a recruitment strategy. In northern Australia more than 1500 student placements annually have been provided through collaboration between health services, universities and University Departments of Rural Health. In 2020, an unintended negative outcome of the public health management of COVID-19 has been the loss of upwards of 40% of usual placement activity.

Analysis and Outcomes: Service-learning allied health student placements play an increasingly critical role in providing services in Northern Australian Aboriginal or Torres Strait Islander communities where allied health services are scarce. Student service-learning models seek to balance student learning requirements and community-specific health outcomes derived from engaging with the community to ensure culturally appropriate design, implementation and evaluation. Service-learning models ultimately aim to facilitate the establishment of funded professionally-staffed services that meet community need and address inequity.

Future Actions: Programs implementing service-learning models are working on solutions to resume in ways appropriate to the 'new-normal' once COVID-19 restrictions are eased. Working towards a locally-based health professional workforce, while maintaining the university-community relationship to ensure allied health student placements and services are responsive to needs in northern Australia is important. Despite the service-loss caused by COVID-19 public health policy, vital allied health service-learning placements in remote communities are being planned for and will return as soon as possible.

Western NSW LHD COVID 19 Call Centre

Authors: Ms Lyndal O'leary¹, Ms Sarah Longmore¹, Ms Emma Fitzgerald¹

Affiliations: ¹Wnswlhd

Abstract:

To address the increase in COVID-19 enquiries to the Public Health (PH) team and health facilities across WNSW & FW Local Health Districts in late March 2020, the Western NSW Emergency Operations Centre (EOC) determined that a stand-alone call centre (CC) was required to support our communities. Creating a "popup" service rapidly required leadership, specialised infrastructure and staff at extremely short notice.

The success of the WNSW COVID-19 CC demonstrated the ability of Health Promotion to mobilise current resources into an effective service model for delivery of a CC. The elements of the CC model that contributed to success were effective communication channels, proactive leadership, good engagement, strong team work and willingness for staff to learn comprehensively new skills under pressure. Support for staff involved was also critical to maintain a high-performing CC and achieve a successful outcome.

There were a range of mechanisms implemented to facilitate continuous feedback and problem solving between CC and PH staff and other key stakeholders. Support methods included establishing biweekly Q&A with PH experts and informal Coffee & Chat for CC operations debriefing. Daily CC call logs were analyzed for trends/themes/gaps which were discussed at both sessions.

Whilst the CC is no longer required, it is designed to be reactivated at short notice. Infrastructure (software and hardware) remain and can be easily restored if the need arises. The communication system (PH Nurses phone hunt, group email) continues to be used post CC.

The response to COVID-19 has strengthened the partnership between team/units which will benefit routine business as well as any future responses to health based emergencies.

Identified teams/units are engaged in health emergency planning, trained and resourced for readiness in the event of another pandemic.

Messaging for various platforms are developed during planning including health service phone messages to improve communications.

Developing a novel app for outbreak management: Lessons for innovation to action

Authors: Dr Kai-Hsun Hsiao¹, Emma Quin¹, Travers Johnstone¹, Maria Gomez¹, Andrew Ingleton¹, Arun Montfort-Parasuraman¹, Vladislav Obrenovic², Kevin Howland-Rose², Zeina Najjar¹, Leena Gupta¹

Affiliations: ¹Public Health Unit, Sydney Local Health District, ²ICT Services, Sydney Local Health District

Abstract:

Context/Aim: There are abundant opportunities for digital innovations to enhance public health action, particularly for outbreak response. However, successful translation of a digital innovation into an effective public health tool can hinge on critical factors and considerations during development. We share key lessons from our experience as a Public Health Unit (PHU) in developing a novel web-based app for influenza outbreak detection and response in residential aged care facilities (RACFs).

Methods/Analysis: Since 2017, our PHU working group has worked to design, develop and now pilot the InFLUenza outbreak Communication Advice and REporting (FluCARE) app. This app integrates an online influenza line list interface for RACFs, real-time outbreak detection, automated notifications and outbreak action checklists. We reflected on successes and shortcomings in our app development approach, and identified the following key lessons.

Successes: (1) Purposefully design and embed phase-specific end-user engagement throughout development to optimise acceptability and usability. (2) Address data security as a central concern, but adopt a multi-faceted, risk management approach, balancing security with usability. (3) Establish robust governance with a multi-disciplinary working group and monitoring/evaluation mechanisms for quality and safety.

Shortcomings for improvement: (1) Embrace more of the agile, iterative development approach of tech innovation to supplement the cautious, systematic healthcare approach. (2) Advocate for an organisation-wide support structure for digital innovation, pooling knowledge, processes and IT infrastructure to reduce cost and time.

Translational Outcomes: These lessons were utilised to rapidly and successfully redevelop FluCARE to incorporate COVID-19 outbreak monitoring, facilitated by agile development and better-established IT supports. We continue to apply these and ongoing lessons to improve, adapt and scale up our app.

Future Actions: Public health practitioners embarking on similar app innovation projects should consider these lessons. Further research, particularly implementation research, is needed to build best practices for developing and implementing effective public health apps.

3B – Rapid Fire – Planetary & Climate Health

On Demand from 9:30am AEDT

Community engagement: using community consultation to build sustainable marine environments

Authors: Ms Carolyn Loton¹

Affiliations: ¹*Juntos Marketing*

Abstract:

Context and aim: Marine environments play a central role in managing the earth's climate. Careful management of coastal ecosystems requires scientific expertise coupled with community support. Balancing management of biodiversity with the priorities and desired activities of different user groups is a core challenge for marine park management.

The aim of this project was to understand the values, perceptions of threats and attitudes to the Batemans Marine Park (BMP), NSW, in order to inform marine park management plans. Given the high proportion of visitors to the area, achieving representation across all core user groups was a unique challenge.

Method and findings: The area experiences large population fluctuations due to its popularity with holiday makers. To ensure adequate representation of all community groups, face-to-face recruitment was coupled with online surveys, with infield activation timed to ensure representation from visitors as well as local people.

Intercept interviewers recruited 370 BMP users, across a range of park locations (44% visitors, 56% locals).

Results indicate high levels of congruity relating to environmental and social values. Ongoing care and clean marine environment for future generations were ranked most highly (82%, 88% respectively). Economic benefits were ranked less highly.

Translational outcomes: Ensuring broad representation in community mapping and engagement provides tangible directions on which marine environmental plans can be developed, whilst managing diverse uses and perspectives.

A thoughtful approach to recruitment is an important consideration contributing to improved marine park planning and management. This methodology was successful in achieving participatory decision-making and in ensuring an appropriate cross-section of community voices.

Future actions: Ongoing community engagement, across all relevant groups, is vital in understanding how best to frame important environmental and climate initiatives. Outcomes from this research provide a range of insights, adding significant value for effective future communications and strategic park planning.

The Tasmanian Climate Change and Health Roundtable: Exploring adaptation and mitigation actions

Authors: Ms Sharon L Campbell¹, Dr Scott McKeown¹, Dr Sarah Russell², Ms Kate Garvey¹, Mr Paul Hunt¹, Dr Fay H Johnston¹

Affiliations: ¹*Public Health Services, Department of Health Tasmania*, ²*Tasmanian Climate Change Office, Department of Premier and Cabinet Tasmania*

Abstract:

Context and aim: Climate change acts as a threat multiplier across a wide range of public health issues including heatwaves, poor air quality, water and food insecurity, vector-borne disease and mental health. These issues are compounded by social factors such as age, gender, socio-economic status and access to health care. While mitigation and adaptation options can be driven by high-level policy and supporting infrastructure, many solutions to these issues lie at the local level.

Methods and analysis: In April 2019, the Tasmanian Government convened the first Tasmanian Climate Change and Health Roundtable, bringing together academic researchers, local and interstate health policy makers and local clinicians. The aim of the Roundtable was to identify and prioritise policies, programs and research in climate change and health, specific to the Tasmanian context. This gave the opportunity to identify emerging threats to the health of vulnerable Tasmanians from a changing climate, and to build on the existing resilience and capacity of the Tasmanian community. This also gave local policy makers and researchers the opportunity to connect with others in the field.

Translational outcomes: Through a structured conversation, participants at the event identified over 120 Tasmanian-specific actions across seven priority areas. After review for clarification and duplication, and by removing actions that were better suited to in-principle activities, this was reduced to 42 actions. These outcomes are now being disseminated to stakeholders.

Future actions: Various existing plans and policies will be identified and evaluated for alignment with these findings, creating opportunities to expand the climate change and health conversation more broadly across government. These findings will also inform the next Tasmanian Government Climate Change Action plan development process, and the potential for a Tasmanian Climate Change and Health Adaptation Plan will be explored.

The Burden of Temperature Extremes on Health Service Utilisation in Victoria, Australia

Authors: Ms Isobel Todd¹, Ms Sheena Sullivan^{2,3}, Ms Sandra Falconer², Ms Angie Bone², Ms Vanora Mulvaney²

Affiliations: ¹*School Of Population And Global Health, University Of Melbourne*, ²*Health Protection Branch, Department of Health and Human Services*, ³*WHO Collaborating Centre for Reference and Research on Influenza at the Peter Doherty Institute for Infection and Immunity*

Abstract:

Context and aim: Extreme heat, especially over prolonged periods, is a dangerous natural hazard known to impact human health. This problem will become increasingly important as climate change is predicted to lead to a warmer climate and increased frequency of extreme weather events. Currently, heat thresholds are used to guide activation of protective public health measures when extreme conditions are forecast on a single day, acknowledging that Victoria is more likely to experience isolated heat days, rather than heat waves. The objective of our study was to examine the association between ambient air temperature and morbidity and from this, provide evidence to review and update the existing heat thresholds in Victoria.

Methods and analysis/research findings: Through time-series models we were able to determine the relationship between specific temperature combinations and the level of health service activity, including hospital admissions and ED presentations. In turn, this provides evidence to decide the best methods for defining heat thresholds, considering both the duration and intensity of extreme heat.

Translational outcomes: Heat thresholds are currently used to activate emergency response measures at different levels of government. Our findings will help to ensure that this occurs when the risk to human health is greatest, finding the balance between appropriate warning of dangerous conditions whilst minimising an excessive frequency of alerts.

Future actions: Future research could investigate the use of a graded system for categorising the severity of forecast conditions as well as developing real-time surveillance systems for morbidity and mortality following heatwaves, bushfires and other disasters.

Using systems science to understand and better respond to heatwaves in Australia

Authors: Dr Mel Crane¹

Affiliations: ¹*The University Of Sydney*

Abstract:

Context/aim: Heatwaves are an increasing public health concern in Australia, responsible for more deaths than any other natural disaster. Heatwaves are complex, driven by systemic factors outside the health sector. This study takes a systems science approach to examine urban environment factors contributing to heat-related outcomes and drive action.

Methods/research findings: A workshop was conducted with multi-sectoral stakeholders in NSW from academia, state and local government and advocacy groups across health, environment, transport, urban planning, to understand heat-related health outcomes in terms of thermal comfort, urban design and energy use. Causal pathways were identified and intervention strategies discussed. These strategies were explored through literature searches and policy analysis of state-level NSW government department policy documents. The results reveal large gaps in the current response to heat that could be expanded to consider built environment strategies such as the demand and provision of green infrastructure; urban planning guidelines; building design for passive cooling and energy efficiency; renewable energy technologies; and public awareness.

Translational outcomes: Very little research evidence has explored these actions in terms of health impacts suggesting a greater focus needs to be given to understanding and examining the impacts of interventions not traditionally considered in Health. The policy analysis showed that across government, state level policies are inadequate, uncoordinated or where efforts to consolidate responses have been made, focus too much on individual behaviour to avoid heat-stress and ignore the need to address climate factors.

Future actions: Systems science achieves greater understanding of the wider factors influencing heat-related health outcomes, many of which have attracted little public health research interest or health policy implementation, and should be used more to address public health issues. Public health action needs to be taken across academia and practice to address the gaps in understanding and improve our response to planetary health issues.

Digital technology, smoke and health: The AirRater app and Australia's 2019-20 bushfires

Authors: Ms Sharon L Campbell^{1,2}, Dr Penelope J Jones², Dr Grant J Williamson³, Dr Amanda J Wheeler⁴, Dr Christopher Luciani³, Prof David Bowman³, A/P Fay H Johnston^{1,2}

Affiliations: ¹*Public Health Services, Department Of Health Tasmania*, ²*Menzies Institute for Medical Research, University of Tasmania*, ³*School of Natural Sciences, University of Tasmania*, ⁴*Mary MacKillop Institute for Health Research, Australian Catholic University*

Abstract:

Context and aim: In the summer of 2019-20, Australia experienced its most severe bushfire season on record. Smoke from fires affected 80% of the population, with large and prolonged exceedances of the Australian National Air Quality Standard for fine particulate matter (PM_{2.5}) recorded in all major population centres. We examined if AirRater, a free smartphone app that

reports air quality and tracks user symptoms in near real-time, assisted those populations to reduce their smoke exposure and protect their health.

Methods and analysis/research findings: We distributed an online survey to over 13,000 AirRater users to assess how they used this information during the 2019-20 bushfire season, and why it was helpful to aid decision-making in reducing personal smoke exposure. We received responses from 1732 users (13.3%).

Respondents reported the app was highly useful, supporting informed decisions regarding daily activities during the smoke-affected period. Commonly reported activities supported by information provided through the app were staying inside (76%), rescheduling or planning outdoor activities (64%), changing locations to less affected areas (29%) and informing decisions on medication use (15%).

Translational outcomes: Innovative and easy-to-use smartphone apps such as AirRater, that provide individual-level and location-specific data, can enable users to reduce their exposure to environmental hazards and therefore protect their health.

Future actions: Apps such as AirRater need to be included in future education and communication campaigns related to smoke and health.

3C – Rapid Fire – COVID-19: Public Health Action- Health & Wellbeing

On Demand from 9:30am AEDT

Workforce mental health and organisational responses during COVID-19: Preliminary survey results

Authors: Dr Tegan Podubinski¹, Dr Kristen Glenister¹

Affiliations: ¹The University Of Melbourne

Abstract:

Context and aim: COVID-19 began when Australians were still reeling from a devastating bushfire season. Physical and psychological preparedness to respond to these events was variable. Previous research shows that high levels of stress influences cognitive and behavioural performance; its management can positively impact health and wellbeing. As climate disasters become more frequent and severe, workplaces will be in a unique position to reduce the psychological impact on employees. This study seeks to explore the impact of COVID-19 on Australian workforces to inform organisational preparedness recommendations.

Methods and analysis: Participants completed an online, anonymous survey, which included the Depression Anxiety Stress Scale (DASS21), experience of natural disaster in previous 2 years and organisational responses to COVID-19. A snowball recruitment strategy was used. Australian adults who had undertaken paid employment or had volunteered since December 2019 were eligible to participate.

Research Findings: 537 valid survey responses have been received, with 98.5% from paid employees. Approximately 25.0% of respondents reported that they had been impacted by a natural disaster in the past two years; 40.7% agreed that COVID-19 had negatively impacted their recovery from said natural disasters. While 20.5% of respondents reported that they had a long-term mental health condition, DASS21 scores suggested that depressive, anxious and stress symptoms were being experienced by 35.6%, 42.2% and 26.1% of respondents respectively. Respondents reported that their workplaces had implemented strategies to lessen disruption due to COVID-19 but suggested further initiatives relevant to managing, and supporting their wellbeing during, future disasters.

Translational outcomes: This information will inform better organisational preparedness for future disasters. The impact of enhanced organisational preparedness on the mental health and wellbeing of the Australian workforce will be assessed in future studies.

Future actions: Findings will inform an organisational preparedness checklist, to be validated using a Delphi approach with key informer participants.

Life in a pandemic - worries, feelings and experiences

Authors: Shandell Elmer¹, Christina Cheng¹, Sanne Elbrink¹, Richard Osborne¹, Melanie Hawkins¹, Roy Batterham¹, Zaman Zawahar¹, Ranjit Nadarajah¹, Kerrie Paulger¹

Affiliations: ¹Swinburne University of Technology

Abstract:

What is the problem/issue that requires public health action? [Context and aim]: Public health actions to protect the broader population variously impact the lives of individuals. The infection control measures required to suppress the spread of COVID-19 significantly disrupt human social interactions and daily life. Understanding people's lived experience of these restrictions will inform strategies for response and recovery.

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]: During a time when many governments invoked public health restrictions, the BeatCovid19Now survey (April 22 – May 26, 2020) explored emotional impact and worry. Respondents were asked to describe their experience of limiting social contact in the past 24 hours. Thematic analysis of 908 free text responses provides insight into daily life, worries and feelings. Although for many the experience is negative, overall, limiting social contact was reported as neutral to positive, and personal difficulties were offset by knowledge that they were contributing to the greater good.

How has this been used in practice? [Translational outcomes]: Public health messaging can be more targeted and differentiated to lessen the negative emotional impact. To go beyond traditional mainstream approaches to messaging requires deeper understanding of the diversity of individual experiences. This will better equip and support individuals to manage and cope with limited social contact.

What actions should we take in the future to address the problem/issue? [Future actions]: Use the insights gained from the negative and positive experiences to frame messaging to support individuals to take action and avoid approaches that amplify worries.

Locate messages about public health actions within the context of the individual's circle of influence (themselves, family, friends, work colleagues), while contributing to the greater good.

Reconfigure and design the physical environment of shared spaces to support behavioural change such as limiting social contact.

Cancer care in the time of COVID-19: A conceptual framework

Authors: Dr Vivienne Milch¹, Dr Cleola Anderiesz¹, Dr Debra Hector¹, Dr Scott Turnbull¹, Ms Melissa Austen¹, Ms Rhona Wang¹, Ms Carolyn Der Vartanian¹, Professor Dorothy Keefe PSM MD¹

Affiliations: ¹*Cancer Australia*

Abstract:

Context and aim: During the COVID-19 pandemic, cancer care needs to be tailored to different phases of the pandemic and the multiple competing priorities driving healthcare. In addition to the increased risk of serious infection in cancer patients, resource limitations, healthcare system capacity, and the risks of delayed cancer diagnosis and treatment require consideration. Amendments to care need to be evidence-based, risk-based and consensus-based, aiming to improve outcomes for people with cancer, while minimising their risk of exposure and harm from COVID-19.

Methods and analysis: Cancer Australia developed 'Cancer care in the time of COVID-19: A conceptual framework for the management of cancer during a pandemic' as a thought-piece to promote discussion and guide decision-making on cancer care during a pandemic. The framework uses published data and guidance to explore system-wide approaches to cancer management during various epidemiological scenarios of COVID-19, and in alignment with the principles of the Optimal Care Pathways for people with cancer.

The framework outlines considerations for cancer management based on three acute phases of the pandemic (the preparation phase; approaching health system capacity; health system capacity exceeded), and early and late recovery phases. The framework also accommodates for second and subsequent waves of infection.

Translational outcomes: This conceptual framework is intended as a useful resource for cancer organisations, health professionals, medical colleges, and policy-makers to inform best-practice cancer care during a pandemic. While the framework is designed for the Australian healthcare system and this COVID-19 pandemic, the principles are transferrable to any jurisdiction and any pandemic.

Future Actions: As the recovery phases begin, modifications to cancer care must weigh the risk of infection against the benefits of treatment and optimal use of health resources. Some modifications to care, such as increased use of telehealth, will be of permanent value, driving improvement in quality cancer care.

Antihypertensive medications and severity of COVID-19: a systematic review and meta-analysis

Authors: Dr Hoang Phan¹, Dr Vien Truong²

Affiliations: ¹*Menzies Research Institute, University Of Tasmania*, ²*The Christ Hospital Health Network*

Abstract:

Introduction: COVID-19 caused by the severe acute respiratory syndrome has been spreading worldwide. Studies in animals show that angiotensin-converting-enzyme (ACE) inhibitor and angiotensin-receptor blockers (ARB) may up-regulate ACE2 expression. Uncertainty exists over the harmful effects of antihypertensive medications on the severity of COVID-19.

Aim: To investigate the associations between the severity of the COVID-19 and ACE inhibitor, ARB, and other antihypertensive medications by performing a systematic review and a meta-analysis.

Methods: We searched three databases from inception to May 3, 2020, using relevant search terms related to COVID-19, ACE inhibitors, ARB and other antihypertensive medications. We performed meta-analyses using random-effects models to compute overall effects (odds ratio; OR) with heterogeneity being estimated using I² statistics (Stata 12.1 software).

Results: Out of identified 134 articles, 10 studies with a total of 24,132 patients (45.4% being female) were eligible for being included in our meta-analysis (1-10). Among these patients, 2929 (12.1%) had severe COVID-19 (defined as requiring intensive care, having septic shock, requiring mechanical ventilation, or being dead). The use of ACE inhibitor (5 studies; OR 0.58; 95%CI 0.27-0.89; I²=85.2%) and ACE inhibitor/ARB (7 studies; OR 0.71; 95% CI, 0.51-0.91; I²=65.8%) was associated with a lower risk of disease severity. No increased risk of severe adverse events were found to be associated with the use of ARB (5 studies; OR 0.85; 95% CI 0.59-1.11; I²=61.4%), beta-blocker (4 studies; OR 0.96; 95% CI 0.82-1.10; I²=0%). Calcium channel blocker (CCB) was associated with higher risk of more severe COVID-19 (3 studies; OR 1.16; 95% CI 0.99-1.32; I²=0%), although not statistically significant.

Discussion: ACE-inhibitor and ARB were not associated with an increased risk of disease severity while CCB could be harmful in COVID-19 patients. Randomised controlled trials will be necessary to provide insight into the roles of ACE inhibitor and ARB on COVID-19 patients.

Monday 26 October 2020

4A – Aboriginal and Torres Strait Islander Health

On Demand from 9:30am AEDT

Thermal comfort with Tangentyere Council Aboriginal Corporation in Central Australia

Authors: Ms Georgina Hobson^{1,2}, Dr Ray Mahoney^{1,3}, Mr Michael Klerck⁴

Affiliations: ¹CSIRO, ²Centre for Online Health, The University of Queensland, ³School of Public Health, The University of Queensland, ⁴Tangentyere Council Aboriginal Corporation

Abstract:

Context and aim: Location of residence for Aboriginal and Torres Strait Islander people can have significant implications for health and wellbeing. The effects of climate change, including extreme temperatures (150+ day/year over 35°C) in Central Australia, are increasingly documented. Implications of housing suitability, power usage and insecurity further contribute to the complexity of environmental health of residents. Tangentyere Council Aboriginal Corporation (TCAC) and CSIRO are investigating the interrelated issues of climate change, heat and health impacts.

Methods and analysis: The Smarter Safer Homes platform (SSH) will collect thermal comfort data in a cluster of Town Camp households in Alice Springs in a 12 month feasibility study. Data collection includes ambient internal and external temperatures, self-report data, and energy information such as power usage and self-disconnections. TCAC will utilise data to work with households and external stakeholders to develop viable solutions for energy insecurity. TCAC recognises this issue as being both determinant and symptomatic of the multidimensional disadvantage experienced by stakeholders. This TCAC-led research will work behalf of Town Camp Presidents and Members. The use of SSH technology and its cultural appropriateness for Aboriginal and Torres Strait Islander older people will also be considered.

"In February 2020, CSIRO Health and Medical HREC approved application - "Proposal 2020_007_LR: Feasibility of deploying CSIRO Smarter Safer Home (SSH) platform sensors at TCAC properties such as community centres located in and around Alice Springs".

Dr Ray Mahoney identifies as Aboriginal, a descendant of the Bidjara people of Central Western Queensland.

Translational outcomes: This project will contribute to advocacy and lobbying of government regarding housing suitability, energy insecurity and thermal discomfort experienced by members, ahead of TCAC taking over jurisdiction of Town Camp households.

It builds on prior CSIRO research to demonstrate the value of the SSH platform to support health and independent living for older Australians.

It will gain the perspectives of key community stakeholders in regard to digital health technologies.

Future actions: Use evidence on thermal comfort, climate change, construction and building materials to develop and design suitable housing using co-design methodology with local Aboriginal and Torres Strait Islander people.

Remote Indigenous Communities in Australia: Climate Change and Health Projections

Authors: Dr Nina L. Hall¹, Ms Lucy Crosby¹

Affiliations: ¹School of Public Health, The University Of Queensland

Abstract:

Aim: This research sought to identify vulnerabilities of human health of residents in remote Indigenous communities to human-induced climate change, and to contribute to adequate preparation, prevention and response within the context of a paucity of published literature.

Methods and results: A desktop analysis of research published within the past ten years identified how climate change impacts are projected to impact human health in remote communities from a range of risks, including extreme weather events (heatwaves, bushfires, floods and cyclones, and drought), drinking water, air quality, food safety and security and housing, to the spread of infectious diseases, and to mental health and other aspects of social and emotional wellbeing. Remote settlements will be vulnerable to these climate impacts and associated health impacts due to isolated location, quality of the infrastructure, economic resources, limited transport, and existing health vulnerabilities that enable resilience or vulnerability. These risks will build on the existing vulnerabilities in remote Indigenous communities – a generally higher burden of disease, economic limitations, infrastructure that may be poorly maintained, and isolation from main centres that can provide emergency and health services.

Translational outcomes: Despite the climate-related health risks, the traditional connection to country and associated responsibilities ensures an intention to continue to live in remote settlements. Therefore, to maintain and better support Indigenous populations, there is a need for prevention, management and adaptation – and this brings health co-benefits.

Future actions: Future research could identify and detail Indigenous knowledge to guide future adaptation efforts. Future research could also seek evidence on which to weight confidence and certainty statements and could seek data to detect changes to human health and identify the attribution (where it exists) to human-induced climate change.

Racial discrimination and allostatic load among First Nations Australians

Authors: Ms Leah Cave^{1,2}, Dr Matthew N. Cooper¹, Prof Stephen R. Zubrick^{1,3}, Dr Carrington C.J. Shepherd^{1,4}

Affiliations: ¹Telethon Kids Institute, ²School of Population and Global Health, The University of Western Australia, ³Centre for Child Health Research, The University of Western Australia, ⁴Ngangk Yira Research Centre for Aboriginal Health & Social Equity, Murdoch University

Abstract:

Context and aim: Increased allostatic load is linked with racial discrimination exposure, providing a mechanism for the biological embedding of racism as a psychosocial stressor. We undertook the first examination of how racial discrimination interacts with socioecological conditions to affect multisystem dysregulation in a First Nations population.

Methods and research findings: We conducted latent class analysis (LCA) using indicators of life stress, socioeconomic background and physical and mental health from a nationally representative sample of Australian Aboriginal adults (N=2 056). We used LCA with distal outcomes to estimate the effect of the latent class variable on our derived allostatic load index and conducted a stratified analysis to test whether allostatic load varied based on exposure to racial discrimination across latent classes. Our socioecological measures informed a four-class structure; 'Low risk' (30.8%), 'Challenged but healthy' (27.8%), 'Mental health risk' (24.0%) and 'Multiple challenges' (17.4%). Mean allostatic load was highest in 'Multiple challenges' compared to all other classes, both in those exposed (4.5; 95% CI: 3.9, 5.0) and not exposed (3.9; 95% CI: 3.7, 4.2) to racial discrimination. Allostatic load was significantly higher for those with exposure to racial discrimination in the 'Multiple challenges' class ($t = 1.74$, $p = .04$) and significantly lower in the 'Mental health risk' class ($t = -1.67$, $p = .05$).

Translational outcomes: Racial discrimination may not always modify physiological vulnerability to disease. This finding does not diminish the importance of responding to racial discrimination as a social determinant of health, instead social and economic contexts must be considered when addressing the impact of racism, with a focus on individuals and sub-populations experiencing co-occurring life challenges.

Future actions: Prevention strategies may take the form of intervention programs with linked evaluations or policy approaches which cut across multiple systems (e.g. healthcare, education, housing) to address the impact of racism on national health disparities.

Impacts of pandemic controls on influenza-like illness among First Nations Australians

Authors: Mrs Sandra Carlson¹, Ms Kristy Crooks^{1,2}, Ms Kylie Taylor¹, Mr Allen Stanley¹, Dr Craig Dalton^{1,3}

Affiliations: ¹Hunter New England Population Health, ²Menzies School of Health Research, Charles Darwin University, ³University of Newcastle

Abstract:

Context and aim: The disproportionate impact of past influenza pandemics on First Nations Australians is a stark reminder of the public health threat of COVID-19 to this priority group. First Nations Australians were omitted as a high-risk group in past pandemic plans and had no ownership of development and implementation of culturally appropriate prevention and mitigation strategies. There is a need for better surveillance data to monitor pandemic effects on First Nations Australians.

Flutracking, an Australian and New Zealand influenza-like illness (ILI) surveillance system, provides early insights into the impact of COVID-19 on First Nations Australians.

Methods and analysis: Weekly percentages of First Nations and non-First Nations Flutracking participants who reported ILI (defined as fever and cough) were calculated. Prior to the implementation of COVID-19 prevention and mitigation strategies (mid-March 2020) the percentage of First Nations participants reporting ILI peaked at two times higher (2.8%) than non-First Nations participants (1.4%). By late May 2020, ILI rates for all Australian participants declined to historically low levels. As COVID-19 restrictions eased, June ILI rates for First Nations participants increased again, disproportionately to non-First Nation participant ILI rates.

Translational outcomes: These findings show that community wide, non-targeted interventions have likely contributed to decreased respiratory virus transmission for First Nations Australians. However, the role of early intervention by First Nations leaders must be acknowledged as a likely contributing factor. Early targeted positive communication and social media messaging, work with First Nations Communities on preparedness and response plans, and community instigated lockdowns have all likely played a role in keeping First Nations communities safe.

Future actions: The disproportionate increase in ILI levels in First Nations participants in June is alarming. This should serve as an early warning to First Nations leaders to continue important work on limiting the impact of COVID-19 on this priority group.

4B – Healthcare

On Demand from 9:30am AEDT

Oral healthcare utilisation in CALD groups using the NSW Population Health Survey

Authors: Ms Kanchan Marcus^{1,3}, Dr Madhan Balasubramanian², Prof Stephanie Short^{2,3}, Prof Woosung Sohn¹

Affiliations: ¹The University of Sydney, Population Oral Health, School of Dentistry, Faculty of Medicine and Health, ²The University of Sydney, Faculty of Medicine and Health, ³Sydney Asia Pacific Migration Centre (SAPMiC), The University of Sydney

Abstract:

Context: Culturally and linguistically diverse (CALD) groups experience several barriers when accessing preventive oral healthcare services. Some barriers include health literacy levels, communication barriers, knowledge, beliefs, access to services and cost issues. The aim of this study is to explore the characteristics, profiles and dental visiting patterns between CALD and non-CALD communities in NSW.

Method: The NSW Adult Population Health Survey data was analysed for years 2013 (n=14,969) and 2015 (n=15,564). The main outcome measure was dental visit in the last 12 months. CALD was defined using country of birth and language other than English spoken at home. Univariate analysis was undertaken in SPSS.

Outcomes: The mean age of participants was 48 years in 2013 and 49 years in 2015. More women than men participated in the survey in both years (57.3% compared to 42.7% in 2013 and 55.4% compared to 44.6% in 2015). Preliminary findings reveal that majority of respondents were Australian born (75.7%), followed by country of birth in chronological order with England, China, Other, India and New Zealand. Almost 75% respondents had visited the dentist in the last two years and 60% visited the dentist in the last 12 months. CALD and non-CALD participants reported no need to visit the dentist in the last 12 months (55.3%), while 58% of CALD groups visited the dentist in the last 12 months compared to all CALD groups. Participants who spoke a language 'Other,' Hindi, Punjabi, Mandarin and Pakistani/Urdu reported visiting the dentist between 2-10 years or more.

Conclusion: Mainstream oral healthcare services are not meeting the needs of CALD groups. Utilising primary healthcare professionals through skills mix and further research with CALD groups, is needed to improve the provision of oral healthcare services for the growing number of CALD communities.

Addressing dry mouth via community pharmacies: piloting an innovative oral health approach

Authors: Ms Carolyn Loton¹, Associate Professor Rachel Martin³, Mr Kevin McNamara², Mrs Catherine Adams¹, Mr Bradley Christian³, Professor Hanny Caleche²

Affiliations: ¹Juntos Marketing, ²Deakin University, ³La Trobe University

Abstract:

Context and aim: Dry mouth (Xerostomia), a common, debilitating condition, affects oral health and quality of life in approximately 20% of the population, particularly older people. Producing less saliva results in higher risk of gum disease, tooth decay, tooth sensitivity and at times difficulty swallowing and speaking.

Recent initiatives have focused on widening the role of community pharmacists in primary care and prevention. This pilot study aimed to increase community pharmacists' capacity to educate and support clients experiencing dry mouth.

Method and findings: Using co-design, consumers with lived experience informed the approach, messages and trial materials. Clear, easy-to-understand professional resources were then developed. Ten NSW and Victorian community pharmacists used the supplied guide and resources with up to 50 clients. Pre and post intervention surveys were administered.

This study found community members had low awareness of dry mouth, even amongst those experiencing significant symptoms.

Pharmacists indicated good knowledge of dry mouth and possible complications, yet a low awareness of the implications of dry mouth on oral health. Their ability to identify potential target consumers varied significantly, as did their recommendations. Additional professional education that helps pharmacists to better assist customers experiencing dry mouth would be welcomed.

Translational outcomes: Initial results indicate pharmacists can be an effective channel to communicate important health messages. The resources were generally seen as helpful.

Pharmacists appear to underestimate the incidence of dry mouth and its impact on their clients, suggesting improved education and understanding would improve oral health outcomes and awareness in the wider community.

Future actions: Working with community pharmacists is a promising means of improving oral health outcomes and quality of life for those experiencing dry mouth. Future actions should include education, awareness and practical resources to encourage simple behaviour changes.

We now plan to test this approach in a larger scale trial.

Challenges and opportunities to appropriate antibiotic prescribing: a survey of clinicians' perceptions

Authors: Ms Mah Laka¹, Dr Adriana Milazzo¹, Professor Tracy Merlin²

Affiliations: ¹*School Of Public Health, University Of Adelaide*, ²*Adelaide Health Technology Assessment (AHTA), School of Public Health, University of Adelaide*

Abstract:

Context and Aim: Emerging antibiotic resistance is a significant threat to global public health. There is evidence on sub-optimal prescribing as a contributing factor to antibiotic resistance. This study aimed to identify behavioural determinants of inappropriate antibiotic prescriptions that may help design effective interventions.

Method and Research Findings: A cross-sectional online survey was undertaken with clinicians from hospital and primary care settings in Australia from June – October 2019. Multivariate logistic regression was used to determine if clinicians' demographic characteristics, and use of guidelines, are associated with barriers of appropriate antibiotic prescribing.

Our results indicate that inappropriate prescribing behaviour is not limited to clinicians' practices, but also relate to patients' expectation and clinical culture. A lack of data for evidence-based decision making and diagnostic uncertainty contribute to sub-optimal antibiotic prescriptions. Different care settings and experiences of clinicians influence their perceptions of whether the unavailability of information, delay in diagnostic results and patient expectations regarding treatment led to inappropriate prescribing behaviour. Respondents in primary care settings and with less experience were more likely to consider that patient demands and lack of data required for decision-making are barriers to appropriate antibiotic prescribing.

Transnational outcomes: The efficacy of interventions designed to improve antibiotic prescribing practices can be limited by the lack of focus on contexts in which these practices are nested. Comparison across different settings and clinician groups indicated that the practice gaps and uncertainties during antibiotic prescribing are influenced by individual and setting-specific factors.

Future actions: For optimal antibiotic prescribing practices, there is a need to focus on contextual requirements, shared decision-making by clinicians and patients and availability of relevant information at the point-of-care.

A retrospective review of a phone service for sexual and reproductive health

Authors: Dr Yan (wendy) Cheng¹, Dr Clare Boerma¹, Dr Jessica Botfield¹, Dr Kevin McGeechan^{1,2}, Ms Jane Estoesta¹

Affiliations: ¹*Family Planning NSW*, ²*The University of Sydney*

Abstract:

Context and aim: Telehealth is the remote delivery of healthcare through telecommunication tools. To support access to healthcare during the COVID-19 pandemic, in March 2020 the Australian government announced temporary Medicare Benefits Schedule (MBS) items for telehealth/phone services. In addition to face-to-face consultations, Family Planning NSW (FPNSW) introduced phone services in April 2020 to ensure that access to essential sexual and reproductive health (SRH) services was not compromised. Phone services were provided for contraception, gynaecological problems, pregnancy options counselling, termination of pregnancy (TOP) and sexually transmitted infections (STIs). A study was undertaken to explore the use of phone services for SRH.

Methods and analysis/research findings: FPNSW clinical data collected between April and June 2020 was reviewed to describe the use of phone services for SRH. There were 2865 telephone consults by doctors, nurses and social workers/psychologists, accounting for 38% of total visits to FPNSW clinics over this time; approximately doubled that of the same period in 2019.

Fifty-four percent (1556/2865) of telephone consults utilised the temporary MBS items. The main presenting issues focussed on contraception (38%), gynaecological problems (32%), TOP (12%), STIs (8%) and pregnancy/fertility (7%). Most phone service users were young people <30 years (56%), English-speaking (81%), from a major city (88%), and with a full-time/part-time job (52%).

Translational outcomes: The high use of phone consultations by FPNSW clients for a range of issues demonstrates the feasibility and acceptability of providing SRH services remotely. Utilising telehealth as a complement to face-to-face consultations has ensured access to these services during the pandemic, and continued provision will likely further enhance SRH care.

Future actions: The temporary MBS items for telehealth/phone services will expire after 30 September 2020. Given the demand for these services and need for continued and enhanced access to SRH care, continuation of these MBS items is warranted.

Investigating symptoms of lung cancer: a guide for all health professionals

Authors: Dr Vivienne Milch¹, Ms Vivienne Chipman¹, Ms Jennifer Chynoweth¹, Ms Tamsin Farrugia¹, Dr Candice Woods¹, Ms Rhona Wang¹, Dr Cleola Anderiesz¹, Prof Dorothy Keefe¹

Affiliations: ¹*Cancer Australia*

Abstract:

Context and aim: Lung cancer is the leading cause of cancer mortality in Australia. Symptoms are often non-specific, making patient awareness and identification in primary care difficult. The COVID-19 pandemic compounds these challenges:

symptomatic people may delay presenting to GPs, and, in those who do present with respiratory symptoms, health professionals need to remain alert to the symptoms and signs of lung cancer, in addition to COVID-19.

Cancer Australia aims to maximise uptake of its new resource, Investigating symptoms of lung cancer: a guide for all health professionals (the Guide), to support health professionals during and following the pandemic.

Methods and analysis: Cancer Australia adopted an evidence-based approach to develop the Guide, which provides health professionals with a step-by-step method for appropriate and timely investigation of lung cancer symptoms, including haemoptysis, cough, chest pain, shortness of breath and fatigue. The Guide has been endorsed by 12 professional colleges and organisations.

Cancer Australia developed a multi-pronged implementation approach for this resource, pivoting the messaging to be relevant to the COVID-19 pandemic.

Translational outcomes: Launched in May 2020, Cancer Australia promoted the Guide through media, endorsing organisations, and a social media campaign/video, Not every cough is COVID-19, to encourage health professionals to refer to the Guide and be vigilant about the possibility of lung cancer when assessing patients with respiratory symptoms.

Within two weeks, the social media campaign had over 190,000 impressions, and the video was viewed over 25,000 times. To date, the information on the Guide has been accessed 8,000 times.

Future actions: To further support reach and uptake of the Guide, Cancer Australia will distribute the resource to primary care; develop educational content through webinar, face-to-face and e-learning channels; and engage with Primary Health Networks. Implementation activities will be evaluated to assist in maximising reach and utility into the future.

Are there opportunities to prevent hospitalisations for persons with dementia?

Authors: Dr Sharyn Lymer¹, Ms Helen Moore¹

Affiliations: ¹NSW Health

Abstract:

Context and aim: Dementia is associated with hospital admissions that result in more adverse outcomes, longer stays and higher costs. Potentially preventable hospitalisations (PPH), a health system performance measure, was used to explore health disparities experienced by dementia patients. The impact of risk adjustment for sociodemographic factors on dementia patient PPH measures was considered.

Methods and analysis/research findings: NSW combined admitted patient epidemiology data 2017/18, NSW residents only, was used for analysis. Descriptive statistics of patient characteristics and outcomes, contrasting with and without dementia for PPH admissions were done. Adjusted odds ratios of having a PPH for dementia were calculated. The logistic regression model controlled for age, sex, socioeconomic status, rurality, aboriginality and co-morbidity using Charlson Comorbidity Index.

Dementia cases with PPH are older, more often female, have more co-morbidities and stay in hospital for longer. After risk-adjustment, dementia cases have a 25 percent greater odds of PPH (95%CI: 1.19-1.30). In contrast, age-sex only adjustment would report 60 percent greater odds. Chronic disease PPH odds were 48 percent greater (risk-adjusted) in dementia cases. Conditions such as diabetes complications and urinary tract infection, had significantly increased odds in dementia cases. Further, a socioeconomic gradient is present, with more disadvantaged areas more likely to have PPH.

Translational outcomes: Chronic PPH management in dementia cases represents an opportunity for change through better access to primary healthcare. The reporting of PPH measures for surveillance is currently reported by major risk groups such as socioeconomic disadvantage on HealthStats NSW.

Future actions: Future surveillance using PPH measures both generally and more specifically related to dementia patients require indicators developed that include appropriate risk adjustment for routine ongoing reporting. Initiatives that could lower PPHs in dementia patients, an over-represented group, and those in socially disadvantaged areas, could provide wide ranging benefits but requires appropriate monitoring and evaluation.

4C – COVID-19: Lifestyle Impacts

On Demand from 9:30am AEDT

Australian's physical activity during COVID-19: changes in guideline adherence and active recreation

Authors: Dr Lauren Arundell¹, Professor Jo Salmon¹, Professor Anna Timperio¹, Dr Shannon Sahlqvist¹, Dr Helen Brown¹, Associate Professor Nicky Ridgers¹, Dr Riaz Uddin¹, Associate Professor Jenny Veitch¹, Dr Kate Parker¹

Affiliations: ¹Deakin University, Institute for Physical Activity and Nutrition (IPAN)

Abstract:

Context and aim: The Government's response to COVID-19 resulted in closures of workplaces, schools, sport and recreation centres, the main settings for health enhancing moderate-to-vigorous intensity physical activity (MVPA). This study examined changes in Australians' self-reported adherence to the MVPA guidelines and active recreation in February 2020 (pre-COVID-19) and April/May 2020 (lockdown restrictions).

Methods and analysis/research findings: Participants in the national Our Life at Home study completed an online survey in May 2020. They reported demographics, adherence to the MVPA guidelines, and participation (minutes/week) in 15 active recreational activities (running [outdoors/at home], cycling [to school or work/leisure/home], muscle-strengthening exercises, yoga/Pilates, fitness classes [in neighbourhood/home], informal sport practice/play, recreational activities (e.g. skateboarding), gardening, walking for leisure [own/group/family]) during February 2020 and April/May 2020. Data were analysed by age: adults (n=1383, 36.9±15.2yrs, 82% female), adolescents (n=1315, 16.2±1.3yrs, 70% female) and children (parent proxy-reported; n=334, 12.3±4.3yrs, 48% female). Chi-square and t-tests assessed changes in MVPA guideline adherence and recreation activities, respectively, pre-COVID-19 and during lockdown.

Pre-COVID-19, fewer adults (30% vs 33%, p<0.01) and more children (22% vs 15%, p<0.01) achieved the MVPA guidelines compared to lockdown. No change was seen amongst adolescents (8% at both times). Pre-COVID-19, adults, adolescents and children spent less time in muscle-strengthening exercises (-21mins/week, -10mins/week and -14mins/week respectively), walking with family (-18mins/week, -3mins/week, and -30mins/week respectively), and more time in informal sport practice/play (15mins/week, 32mins/week and 31mins/week respectively) (all p<0.01).

Translational outcomes: The COVID-19 lockdown restrictions had positive and negative impacts on physical activity across age groups, creating unique challenges and opportunities. Findings can inform public health, sport and recreation strategies to maintain or (re-)engage Australians, particularly children and adolescents, in physical activity post-COVID-19.

Future actions: Investigation into the factors associated with current MVPA participation is required to support effective physical activity promotion policies and programs for all Australians.

Health-related behaviours during coronavirus pandemic: Food consumption and exercise habits while 'staying-at-home'

Authors: Mrs Liyuwork Mitiku Dana¹, Associate Professor Moira O'Connor¹, Dr Zenobia Talati¹, Ms Hayley Grant¹, Dr Blake Lawrence¹

Affiliations: ¹Curtin University

Abstract:

Context and aim: In response to the novel coronavirus pandemic the Australian Government introduced isolation guidelines ('lockdown') and social distancing measures, including temporary closure of gyms, restaurants and cafes (except from takeaway and delivery services), hotels and others, which potentially influenced lifestyle behaviours (e.g., exercise and eating habits) of many Australians. The current study will assess West Australian adults' health-related behaviours and lifestyle changes during the coronavirus pandemic 'lockdown' period.

Methods and analysis: Approximately 150 West Australian adults aged 18+ years will complete an online survey from June to July 2020. Respondents will report on the frequency with which they ordered meals online for home delivery or collected takeaway meals during the 'lockdown' period, as well as the meal type they usually order using these platforms. Respondents will report on their intake of vegetable, fruit, and sugary drinks as well as time spent engaging in physical activity, and describe whether the pandemic 'lockdown' period influenced any changes in these behaviours. Findings from quantitative and open-ended responses will be presented.

Translational outcomes: The outcomes of this research will offer a unique understanding of potential changes in Western Australian's exercise and eating behaviours during the unexpected social and economic circumstances of the coronavirus pandemic. This project has direct relevance in the context of a pandemic and its impact during and the post pandemic era.

Future action: This research will be used to inform future public health interventions and advocacy for policies that encourage individuals to adopt healthy lifestyle behaviours during national and international health emergencies, such as the current novel coronavirus pandemic. It will also guide future campaigns as the study will examine a range of factors including demographics (e.g., age, gender), socio-economic factors (e.g., living and working status), and contextual factors (e.g., easier access to take away).

Safe Exercise at Home website: Keeping older people active during COVID-19

Authors: Miss Courtney West¹, Professor Cathie Sherrington¹, Associate Professor Cathy Said^{2,3,4}, Professor Keith Hill⁵, Associate Professor Michele Callisaya^{5,6}, Rik Dawson^{1,7}, Associate Professor Frances Batchelor⁸, Professor Anne-Marie Hill⁹, Associate Professor Shylie Mackintosh¹⁰, Dr Stephanie Fu^{11,12,13}

Affiliations: ¹Institute For Musculoskeletal Health (University of Sydney and Sydney Local Health District), ²University of Melbourne, ³Western Health, ⁴Australian Institute for Musculoskeletal Science, ⁵Monash University, ⁶Menzies Institute for Medical Research, University of Tasmania, ⁷Australian Physiotherapy Association, ⁸National Ageing Research Institute (NARI), ⁹Curtin University, ¹⁰University of South Australia, ¹¹Ageing Balance, ¹²Mater Health Services Brisbane, ¹³University of Queensland

Abstract:

Context/aim: Physical distancing restrictions, including recommendations for Australians to 'stay home', has been an essential strategy to minimise the spread of COVID-19 during the pandemic. As these restrictions limited exercise opportunities, they may result in reduced physical activity which can reduce function and increase risk of falls in older people. Our group of academic and clinical physiotherapists and a communications expert identified the need to support safe exercise at home to minimise the impact of these restrictions.

Methods/analysis: We met virtually and: a) developed home exercise programs for people at three levels of functional ability; b) developed simple advice about exercising safely, exercise intensity, and staying motivated; and c) reviewed and selected online exercise programs and resources for consumers and health professionals to link to. Real life examples of older people keeping active during the pandemic were sourced to provide motivation. Website content was made available to download and print to increase accessibility. Modifications were made after consumer and international advisor feedback. Google Analytics was used to evaluate website usage.

Translation outcomes: The website was launched on 5 May 2020, 35 days after the group's initial meeting. In the first 9 weeks of website availability 20,608 users accessed the website, with 14.6% being returning users. There were 27,513 sessions and 74,927 page views. Users were most engaged in pages for older people and the different levels of functional ability. Most users accessed the website by direct URL or referral from another online source. Most users were from Australia (80.74%), followed by Denmark (5.15%) and USA (3.85%).

Future actions: Further modifications will be guided by user feedback and restriction changes. Additional resources will be added following review. We plan to conduct webinars to educate health professionals and consumers, using the website as a guide to tailor home exercise programs.

Online yoga for seniors during COVID19: adaptations made in the SAGE trial

Authors: Associate Professor Anne Tiedemann¹, Dr Juliana Souza De Oliveira¹, Professor Catherine Sherrington¹, Professor Stephen Lord², Ms Romina Sesto³, Ms Giane Caon Camara¹, Dr Anne Grunseit⁴, Professor Adrian Bauman⁴, Professor Kaarin Anstey², Professor Roberta Shepherd⁵

Affiliations: ¹Institute for Musculoskeletal Health, The University of Sydney and Sydney Local Health District, ²Neuroscience Research Australia, University of New South Wales, ³Yoga To Go studio, ⁴Prevention Research Collaboration, School of Public Health, Faculty of Medicine and Health, University of Sydney, ⁵School of Health Sciences, Faculty of Medicine and Health, University of Sydney

Abstract:

Context and aim: Falls significantly reduce independence and quality of life in older age. Exercise that challenges balance can prevent falls. Yoga can provide a high challenge to balance, however the effect of yoga on falls has not been evaluated. The NHMRC-funded Successful AGEing (SAGE) yoga trial will establish the effect of a yoga exercise program compared to a yoga relaxation program on falls. Recruitment to the face-to-face classes for the trial was, however, interrupted by COVID19.

Methods and analysis/research findings: SAGE trial participants (n=560) are randomised to either: (1) the SAGE yoga exercise program, involving twice-weekly supervised classes for 40 weeks or (2) a yoga relaxation program, involving 2 supervised classes and unsupervised practice. Primary outcome is rate of falls in the 12 months post randomisation.

248 participants were recruited to the SAGE trial since September 2019. Since COVID19 and the advice for older people to stay at home, SAGE trial classes that were face-to-face are now delivered online via Zoom. The change to online classes has expanded recruitment locations and offered people in regional and remote settings the possibility to join. The public response to this opportunity has been exceptional, with 119 people recruited in 6 months pre-COVID19 and 129 people recruited in 4 weeks during COVID19, showing that access to supervised online physical activity is indeed welcomed and valued by older people.

Translational outcomes: Key learnings regarding transitioning from face-to-face to online classes will be discussed, including technology and ongoing support to successfully engage older people in this approach.

Future actions: Considering the uncertainty of the current and future impact of COVID19 on our ways of living, exploration of online physical activity programs for older people is crucial. Future research should identify the barriers and enablers to widespread uptake of online physical activity opportunities by older people.

Cancer and COVID-19: providing strategic health communication and promotion during a pandemic

Authors: Dr Vivienne Milch¹, Dr Cleola Anderiesz¹, Dr Debra Hector¹, Dr Scott Turnbull¹, Ms Jane Salisbury¹, Ms Melissa Austen¹, Dr Candice-Brooke Woods¹, Ms Rhona Wang¹, Mr Rahul Sathiaraj¹, Ms Carolyn Der Vartanian¹, Professor Dorothy Keefe PSM MD¹

Affiliations: ¹*Cancer Australia*

Abstract:

Context and aim: The approach to cancer care during the COVID-19 pandemic needs to consider the increased risks to cancer patients of acquiring COVID-19 and associated serious illness or mortality, and the risks of delaying cancer diagnosis and treatment. Cancer Australia is in a unique position to provide strategic health communication and promotion to health professionals and the cancer community during the pandemic.

Methods and analysis: Cancer Australia established an online information hub about cancer and COVID-19 to inform, support and facilitate access to Australian and international guidance and resources for people affected by cancer, health professionals, and researchers.

As part of a suite of awareness campaigns about cancer and COVID-19, Cancer Australia's 'Cancer Won't Wait' and 'Act early for our Mob's Health' videos provide consumer-friendly information to encourage people to see their health professional or Aboriginal health worker with 'red flag symptoms' that may be cancer. 'Cancer and COVID-19 – What it means for our Mob' provides tailored information to support Indigenous Australians with cancer to stay safe during COVID-19. 'Not every cough is COVID-19' assists health professionals to identify and appropriately investigate patients with symptoms and signs that might be lung cancer. Videos for these four campaigns were shared across websites and social media platforms.

Translational outcomes: Between 31 March – 14 June 2020, the online information hub was viewed over 21,000 times, and the social media campaigns collectively received 169,000 impressions, 700+ 'likes', and 400+ shares.

Future Actions: Access to quality health information can influence best practice care, and strategic health promotion can influence positive health behaviour change. Cancer Australia will continue to inform and support health professionals and the cancer community during the pandemic, through development and promotion of resources on cancer and COVID-19, including dedicated information for Aboriginal and Torres Strait Islander people.

Tuesday 27 October 2020

5A – Rapid Fire – COVID-19: Public Health Action

On Demand from 9:30am AEDT

Aboriginal Community Action Planning in response to COVID-19, 2020

Authors: Priscilla Stanley¹, Sarah Trudgett¹

Affiliations: ¹Western Nsw Local Health District

Abstract:

Aboriginal people living in remote communities in Western NSW are at a greater risk from COVID-19.

Within the Western NSW Local Health District (WNSWLHD) footprint there are many remote Aboriginal communities. Many of these remote Aboriginal communities are considered amongst the most socio-economically disadvantaged communities in New South Wales.

To reduce the risk of COVID-19 infection to Aboriginal people living in these remote communities, the WNSWLHD Aboriginal Health Leadership Team have played a pivotal role in the development and implementation of localised Community Action Plans.

The Community Action Plans have provided Aboriginal people in remote communities in Western NSW with a platform to prioritise their community's needs and develop and implement strategies to reduce the risk of COVID-19 infection. Importantly, these plans have also been used as a communication tool used to increase Local and State Governments understanding of what each of the community's needs are in relation to COVID-19.

The WNSWLHD Aboriginal Health Leadership Team have represented the Organisation (WNSWLHD) in this process by engaging with community to obtain their feedback for the purpose of informing Community Action Plans, leading the development and maintenance of a 'Community Members at Risk' register for each remote community which includes identification of 'homes at risk' as a result of overcrowding and /or resident illness (complex and chronic conditions), working in collaboration with local businesses, such as supermarkets, to ensure ongoing provision of essential items and the introduction of home delivery for vulnerable community members and monitoring the Organisation's progress of assigned strategies.

Pandemic planning requires close and ongoing partnerships with Aboriginal people and communities to develop effective and culturally appropriate strategies for reducing the risk of a pandemic.

From ask to response: food security in remote Indigenous communities during COVID-19

Authors: Stacey Holden¹, Julie Brimblecombe¹, Megan Ferguson², Katherine Cullerton², Emma van Burgel¹, Beau Cubillo¹, Julia McCartan¹

Affiliations: ¹Monash University, ²The University of Queensland

Abstract:

COVID-19 and the government and societal response to this existential threat has revealed the precariousness of food security for First Nations communities in remote Australia. Peak organisations representing and servicing these communities have advocated for government action to address this issue.

We aim to examine the connect between food security issues being reported by these peak organisations and the reporting of these in major Australian newspapers in the context of COVID-19.

Our method involves collecting data from January to December 2020 through:

1. Manual review of peak organisation websites to identify food security issues reported publicly through media releases,
2. Systematic review of mainstream print media literature to identify reporting of related food security issues, and
3. Examination of the Australian and state and territory government websites to identify the key policy measures relevant to food security announced in response to COVID-19

A narrative policy framework is being used to guide data extraction. Critical policy analysis will be applied to these data to examine the values, logic and power structures connected with the content describing the food security problem by the peak organisations and media, and the relationship of these to the government response. An established working group of experts who collaborate on food security issues for remote communities were engaged to assess the completeness of the list of known key stakeholders and peak organisations. We will present on preliminary findings from data collected Jan-June 2020.

This research systematically and critically analyses the policy and societal response to the threat of COVID-19 to remote Australian First Nation communities and its impact on food security will illuminate the values and meanings attached to food security for First Nations communities and contribute to finding a common understanding of this issue.

COVID-19 and Pacific food system resilience: opportunities to build a robust response

Authors: Dr Penny Farrell¹, A/Prof Anne Marie Thow¹, Dr Jillian Wate², Mr Nichol Nonga³, Ms Penina Vatucawaga⁴, Dr Tom Brewer⁵, Mr Michael Sharp⁶, Dr Anna Farmery⁵, Dr Helen Trevena¹, Ms Erica Reeve⁷, A/Prof Hampus Eriksson⁵, Ms Itziar Gonzalez⁴, Ms Georgina Mulcahy¹, Dr Jacob Eurlach⁸, Prof Neil Andrew⁵

Affiliations: ¹Menzies Centre for Health Policy, The University Of Sydney, ²WorldFish, ³Food and Agriculture Organization of the United Nations (FAO), ⁴Food and Agriculture Organization of the United Nations (FAO), ⁵Australian National Centre for Ocean Resources and Security, ⁶Pacific Community, ⁷Global Obesity Centre, Institute for Health Transformation, Faculty of Health, Deakin University, ⁸Department of Ecology, Evolution and Marine Biology, University of California, Santa Barbara

Context and aim: The unfolding COVID-19 pandemic has exposed the vulnerability of the Pacific food system to externalities and has had far-reaching impacts, despite the small number of COVID-19 cases recorded thus far. Measures adopted to mitigate risk from the pandemic have had severe impacts on tourism, remittances, and international trade, among other aspects of the political economy of the region, and are thus impacting on food systems, food security and livelihoods. Of particular concern will be the interplay between loss of incomes and the availability and affordability of local and imported foods.

Methods and analysis: In this presentation, we use a global framework to examine some of the key pathways of impact on food systems in the Pacific region, and identify opportunities to strengthen Pacific food systems during these challenging times.

Translational outcomes: The great diversity among Pacific Island Countries and Territories in their economies, societies, and agricultural potential will be an important guide to planning interventions and developing scenarios of alternative futures.

Future actions: Bolstering regional production and intraregional trade in a currently import-dependent region could strengthen the regional economy, and provide the health benefits of consuming locally produced and harvested fresh foods – as well as decreasing reliance on global supply chains. However, significant production, processing and storage challenges remain and would need to be consistently overcome to influence a move away from shelf-stable foods, particularly during periods when human movement is restricted and during post-disaster recovery.

Food access in Solomon Islands during COVID-19: a rapid baseline survey

Authors: Dr Penny Farrell¹, Dr Jillian Wate², A/Prof Anne Marie Thow¹, Dr Jessica Bogard³, Ms Jessica Scott⁴, Prof Neil Andrew⁴

Affiliations: ¹The University Of Sydney, ²World Fish, ³CSIRO, ⁴Australian National Centre for Ocean Resources and Security (ANCORS)

Abstract:

Problem that requires public health action

Currently in Solomon Islands, the effects of COVID-19 mitigation measures are placing food security at risk. While Solomon Islands has had no COVID-19 cases, arguably the greatest impacts of the pandemic to date are social and economic, and on food and nutrition security in particular. Of concern is the risk of price gouging in an already price sensitive environment, potential decreased availability of commodities due to disruptions in supply chains and food imports (particularly of staples such as rice and wheat products), and potential impacts of closures or restricted operation of venues such as open markets and eat-in venues.

What have we learned?

We will present results from a study currently underway which aims to collect critical baseline information to monitor food and nutrition security as COVID-19 unfolds by implementing a vendor survey at open markets and retail stores in Solomon Islands. The findings will be derived from a survey which analyses the availability and pricing of local and imported diverse foods in the external (store/market focussed) food environment in the capital city and two regional locations in Solomon Islands.

How has this been used in practice?

The findings have potential to influence Solomon Islands national policy and provide input into food policy, highlighting potential diet gaps to inform aid delivery and prioritisation.

The study uses a novel survey tool which was developed based on validated tools to measure and map the external food environment and as such also offers much-needed methodological advancement in this space.

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

Our findings give insights for policy on how diverse food access can be improved in a local and regional food system that is vulnerable to external shocks, of which a pandemic is a significant one.

Supporting vulnerable communities in Melbourne's north through the coronavirus pandemic

Authors: Ms Elizabeth Chondros¹, Ms Annie Grant¹, Ms Karleigh Earle¹

Affiliations: ¹*Your Community Health*

Abstract:

Context and aim: The COVID-19 pandemic and subsequent 'lockdown' led to the immediate closure of services, supports and local networks for all Victorian residents. For older people and those living with complex health and social conditions, the period of self-isolation only increased their vulnerability.

Your Community Health (YCH) established a COVID-19 Community Connection and Support Team (CCST) to respond to the community to ensure they received the necessary supports to stay healthy, safe and connected.

Methods and analysis: We know people 'fall between the cracks' and the pandemic has heightened awareness of this. We also know of the challenge for people to be able to navigate an increasingly complex service system and bureaucracy to get the supports they need. This has been exacerbated with the closure of various community supports and services during the lockdown.

A proactive approach, including contacting known and potentially vulnerable clients and community members was vital to ensure people were supported through this period.

At least 25% were new clients not linked into any health services or programs at YCH. The people we have supported now have a connection with YCH, so there is trust, working in partnership with local agencies.

Translational outcomes: The CCST is able to respond in a personalised way to the supports required by individuals at a particular time and their needs and supports may change over the course of the crisis.

Clients access the service for general support and then are assisted with service navigation across health and welfare sector.

Future actions: The service will provide more options for community members to access the health service without necessarily having an identified health concern.

YCH will continue to provide direct support to vulnerable people whilst the restrictions are in place. Data gathered through this initiative will inform future engagement with vulnerable communities.

COVID-19 preparedness for seasonal workers in the North Burnett region of Queensland

Authors: Dr Madhumati Chatterji¹

Affiliations: ¹*Wide Bay Public Health Unit*, ²*University of Queensland*

Abstract:

Context and aim: North Burnett in central rural Queensland is vulnerable to SARS-CoV2 (COVID-19) outbreaks. This is due to its transient population of seasonal workers in the agriculture and farming sector and their potentially compromised living conditions, often backpacking in overcrowded suboptimal settings.

The agriculture and farming economy of Australia is dependent on seasonal workers, with thousands arriving on temporary visas for a few months annually.

This paper demonstrates the public health preparedness COVID-19 by the agri-businesses.

Methods and analysis/research findings: In February 2020, the North Burnett agriculture businesses worked with Wide Bay Public Health Unit (WBPHU) in the development of their preparedness plan. This included inspections of backpacker hostels and farmyards; education sessions and training in infection control practices; ensuring a COVID-19 plan in place for the local agri-employers and accommodation owners.

Translational outcomes: A risk management and stratification undertaken from the information collected allowed the development of the COVID-19 Health Management and Rapid Response Plans by the businesses, with enhanced education, risk mitigation and alternative strategies developed to upskill and maintain COVID-19 preparedness of the businesses.

Future actions and recommendations: Significant learnings from the initiative, which was put to test by a COVID-19 case associated with fruit-picking included: a need for continuous education and training; seasonal agri-workers' movements closely monitored, active surveillance through an improved and expanded community testing for COVID-19 for the workers for early detection of community transmission; screening of all interstate and international entrants and a quarantine of 14 days in Queensland before joining work in agriculture related businesses; a Health Management and Rapid Response Plan for COVID-19 is in place, complied with, closely monitored and enforced by the local government, Department of Agriculture and Fisheries, Queensland Police Force and WBPHU through the various guidelines, policies, processes, directives and enforcement strategies.

5B – Rapid Fire – Public Health Action – Mixed Bag

On Demand from 9:30am AEDT

Preterm birth and its biopsychosocial predictors: national prospective cohort study in Australia

Authors: Mr Habtamu Mellie Bizuayehu^{1,2}, Dr Melissa L. Harris¹, Dr Catherine Chojenta¹, Ms Peta M. Forder¹, Professor Deborah Loxton¹

Affiliations: ¹Research Centre for Generational Health and Ageing, School of Medicine and Public Health, Faculty of Health and Medicine, The University of Newcastle, ²Debre Markos University

Abstract:

Context and aim: Preterm birth is a public health problem that affects 8.7% of Australian newborns. This figure has increased by 7% over the last decade. A range of biopsychosocial (biological, psychological, and social) factors associated with preterm birth were identified by studies largely come from hospital-based cross-sectional studies which lack representativeness and temporality. Therefore, using 19 years of cohort data, we examined the biopsychosocial predictors of preterm birth.

Methods/findings: Data from 5,292 women (11,256 newborns) who reported singleton births between 1996 and 2015 in the Australian Longitudinal Study on Women's Health were included. Preterm birth was reported for 8.5% of first births and 5.9% of all-births, while recurrent preterm birth was reported for 9.5% of newborns. Risk factors for preterm were menarche before 12 years (ORa 1.33; 95% CI: 1.00-1.77), a history of preterm birth (ORa 2.33; 95% CI: 1.46-3.70), not being partnered (ORa 1.31; 95% CI: 1.02-1.69), gestational diabetes (ORa 1.67; 95% CI: 1.16-2.41), chronic hypertension (ORa 2.02; 95% CI: 1.45-2.82), gestational hypertension (ORa 3.22; 95% CI: 2.43-4.25), and asthma (ORa 1.40; 95% CI: 1.14-1.72). Compared to first births, second or later births had less likely odds of preterm birth (ORa 0.44; 95% CI: 0.36-0.55). The risk of preterm birth was also less likely among mothers who completed a university degree compared to women with a high school certificate (ORa 0.73; 95% CI: 0.57-0.94).

Translational outcomes: Effective management of chronic diseases during the antenatal period and implementation of prevention strategies in the preconception period is paramount. However, as 40% of pregnancies are unplanned and 44% of women delay antenatal care, a large proportion of women may not receive appropriately staged care.

Future actions: Further development of multi-sectoral policies used for the prevention of chronic diseases and strengthening the utilization of peripartum care are required for preventing preterm birth.

Policy prioritisation for not-for-profit advocacy: a conceptual framework for impact

Authors: Mr Josh Meyers¹, Mr Brad Gellert¹

Affiliations: ¹Cancer Council NSW

Abstract:

Recent crises have brought into sharp focus that, despite seemingly abundant resources, technological advancements and a high-performing health system, capacity to respond is limited by resource scarcity. Our aim was to develop a policy prioritisation framework to guide how Cancer Council NSW (CCNSW) prioritises public policy and advocacy options.

A literature review revealed a variety of prioritisation approaches, however few were suitable in the not-for-profit setting. We conducted a series of interviews with key internal stakeholders and reviewed lessons from previous advocacy campaigns.

We found that a multi-criteria decision analysis incorporating evidence, equity and feasibility should be explicitly considered in the priority setting process. By reviewing the last ten years of policy and advocacy at CCNSW, we found feasibility was one of the most important factors in understanding why a policy ask was successful. Existing prioritisation tools often neglect this key consideration. By considering feasibility, we recognise our mission to achieve impact while acknowledging that public policy decisions are made by governments within a complex socio-economic-political landscape.

While maximising benefit is a legitimate aim and endorsed in other priority-setting guides, equity must also be considered in the priority-setting process to ensure entrenched disadvantage is not exacerbated. Discernment of what is considered equitable in priority-setting often involves value judgements based upon the organisations values, mission and evidence-informed deliberation.

Recognising the complex and shifting public policy-making environment, the Policy Prioritisation Framework describes the principles for ensuring an evidence-based policy and advocacy agenda-setting process. This framework allows CCNSW to set a priority driven advocacy agenda that maximises impact of limited resources while ensuring accountability and a demonstrable decision-making process.

An explicit, open and transparent prioritisation process that considers evidence, equity and feasibility ensures limited resources are effectively allocated and deployed for maximum impact. This prioritisation framework can be applied in other not-for-profit settings.

How do you successfully implement a new digital health intervention package?

Authors: Ms Maria Gomez¹, Dr Emma Quinn¹, Dr Kai Hsaio¹, Mr Nick Pilbeam¹, Mr Andrew Ingleton¹, Mr Arun Prasath Monfort Parasuraman¹, Dr Zeina Najjar¹

Affiliations: ¹Public Health Unit, Sydney Local Health District

Abstract:

Context and aim: The use of digital health apps in public health have increased significantly over the last few decades. In practice, the successful implementation of a digital health app requires an identification and understanding of the enabling factors (personal, system and environmental) that are required for maximal uptake, engagement and use overtime. The Sydney Local Health District (SLHD) Public Health Unit (PHU) is piloting an innovative web-based application i.e. the influenza outbreak communication advice and reporting app (FluCARE) to help residential aged care facility staff respond to infectious disease outbreak. We are taking an implementation science approach to better understand how to effectively implement our app and intervention package.

Methods and analysis: The app includes a number of enabling structures referred to as the intervention package, which are necessary for the successful implementation of FluCARE. The key intervention package components can be classified in five groups: user training and education; IT infrastructure and support; operational policies and procedures; user engagement and promotions; and governance structures. We will be conducting research to understand how best to deliver these components in other health districts in NSW to enable the scale up of the project over time.

Translational outcomes: The FluCARE app has been piloted with residential aged care facilities (RACFs) in the Sydney Local Health District (a total of 38 RACFs and 60 staff). By taking an implementation science perspective, we aim to have practical information regarding the enabling factors for other health districts, as well as information on how to adapt the intervention package to best suit their staff, IT infrastructure and governance etc.

Future actions: An implementation science approach is necessary to understand and address the enabling factors that will help public health practitioners scale up digital innovations in health.

The Appropriateness of Online Training Modules to Support Intervention Implementation

Authors: Nicholas Pilbeam¹, Emma Quinn², Maria Gomez², Kai Hsiao², Andrew Ingleton², Arun Montfort-Parasuraman², Zeina Najjar², Leena Gupta²

Affiliations: ¹University Of Sydney, ²Public Health Unit, Sydney Local Health District

Abstract:

Context and Aim: FluCARE is a novel, innovative web-based intervention application (app) developed by the Sydney Local Health District Public Health Unit (SLHD) being piloted during 2020. FluCARE supports staff in residential aged care facilities (RACF) in responding to infectious disease outbreaks. Due to the COVID-19 pandemic, we had to quickly adapt our existing face to face training workshops and design and deliver online training modules to the staff in RACFs participating in our pilot program. We created these modules using the SLHD learning management system "Moodle", which included evaluation surveys to determine the effectiveness of online training in upskilling the staff in how to use FluCARE, as well as intervention implementation.

Methods and Analysis/Research Findings: The modules were design to provide sufficient practical content (including videos, quizzes and course notes) on how to use the app so that RACF staff could be accredited to use the app. The evaluation data suggested that online modules are a valuable mode of training for upskilling RACF staff when applying a novel intervention. Uptake evaluation data indicated that 39 participants completed the training out of 110 links to training provided for interested staff.

Translational outcomes: Based on our evaluation results so far, online training appears to provide an easily accessible, convenient, interactive and credible way to upskill staff in app utilisation. This format is particularly appropriate during the COVID-19 pandemic, where face to face training is not suitable, and public health resources are in high demand. Consequently, online training for pilot participants wishing to use FluCARE this year has effectively supported our team in running our pilot program this year.

Future actions: Online training modules appear to be effective tools for to support staff training in using web-based applications, particularly within the current pandemic context.

Renewable Energy Use in Australian Public Hospitals

Authors: Mr Hayden Burch¹, Professor Forbes McGain²

Affiliations: ¹University of Melbourne, ²Western Health

Abstract:

Context and aim: Increases in extreme weather are causing adverse health effects. Australian healthcare contributes approximately 7% of Australia's total carbon footprint. Public hospital energy use is a major source of healthcare associated emissions. It is unknown how rapidly Australian hospitals are decoupling energy needs from emissions. We sought to i)

calculate the renewable energy percentage produced/purchased by Australian public hospitals per state/territory and ii) compare performance against international healthcare leaders and other economic sectors.

Methods and findings: Cross-sectional analysis was conducted (2019-2020). Secondary data on public hospital (>200 beds) direct energy usage was sought from all state/territory Health Ministers (renewable & non-renewable electricity, natural gas, liquefied petroleum gas) between 2015-2019. Best-case renewable electricity calculations were performed.

Australian public hospitals produced/purchased 4–94 GWh/yr (0.16–2.31%) of renewable energy (2015-16 to 2018/19). State/territory public hospital efforts have been small to non-existent (0 – 9.5%). Queensland has begun acting on their energy choices, including public hospitals (9.5%) in whole-of-government GreenPower purchase agreements. Victoria and New South Wales consume 61% of health care direct energy (1,288 & 1,206 of 4,122 GWh) have less than 1% renewable electricity. Smaller states/territories (Tasmania, ACT and South Australia) have high grid renewable energy penetration. However large amounts of natural gas are still consumed (35% of Australian public hospital energy use vs 61% grid electricity 2018-19).

Comparatively, individual universities produced/purchased similar or more renewable energy than ALL Australian public hospitals COMBINED (e.g. University of NSW 124GWh/yr 2018-19). The UK's National Health Service will power 11% of facilities with 100% renewable energy in 2020.

Translational outcomes: Public hospitals remain very large emitters and contributors to climate change. This study supports improved leadership by the healthcare sector.

Future actions: Advocating for a Health Sustainable Development Unit, shown to be effective in the UK, would provide the leadership and coordination required.

5C – Rapid Fire – COVID-19

On Demand from 9:30am AEDT

Media representation of COVID-19 pandemic: An Australian perspective.

Authors: Mr Modhar Al Miqdadi¹, Dr Stéphane Bouchoucha², Dr James Lucas², Professor Marilyn Cruickshank¹

Affiliations: ¹University of Technology Sydney, ²Deakin University

Abstract:

Context: During public health emergencies, news media can disseminate recent and urgent government policies, conveying public health messages, increase the level of public acceptance, and improve community health outcomes.

Aims: Investigation of Australian media reports during the COVID-19 pandemic between Dec 31st, 2019 until May 31st, 2020.

Data collection:

Data were collected from Factiva (news agencies), ProQuest (multiple subjects), and Lexis Advance (legal documents). Reports written in English and published in Australia were included. The search algorithm included - Coronavirus OR "COVID-19" OR "SARS" OR "MERS" OR "Wuhan pneumonia" in the headline.

Data analysis: Data were analyzed using an analysis strategy devised for the study: (i) discourse analysis, to examine the relationship between language and ideology; (ii) content analysis of the frequency of statements about catastrophe or disaster and seriousness of the diseases; (iii) interpretative framework, to illustrate the process of how social movements functioned as catalysts for policy change; (iv) temporal analysis to investigate the association between volume of news media reports, number of new cases, and public health policies.

Preliminary findings: The number of media reports varied over the period under study ranging from 1 to 739 per week. Ongoing analysis will detail links between the number, and content of reports, with significant public policy announcements; themes and dominant representations; turning points in the media narratives, and what public health policies were most frequently reported.

Translation outcomes: The project will generate new knowledge about the impact of news media responding to future pandemics by advancing our understanding of media reports during COVID-19 pandemic.

Expected outcomes include stronger public health and media collaborations to influence community acceptance of public health policy, and new evidence-base to guide policy.

Conclusion: This project investigated the impact on the acceptance and translation of public policy by reports of the Australian news media during COVID-19 pandemic.

Move More April: supporting people at home during COVID-19

Authors: Jasmine Teo¹, Gael Myers¹, Anne Finch¹, Jenny Atkins¹

Affiliations: ¹Cancer Council WA

Abstract:

LiveLighter® is a healthy lifestyle campaign funded by the WA Department of Health and implemented by Cancer Council WA. With COVID-19 causing substantial changes to the work, family and social lives of Western Australians, Cancer Council WA decided to suspend planned hard-hitting TV-led LiveLighter® campaigns in favour of non-TV campaigns that would be more relevant and supportive. Several factors were considered for LiveLighter®'s first campaign during this time:

- Campaign development time
- Target audience relevance
- Cost
- The reduction in physical activity due to closure of gyms/sport and reduction in active transport

LiveLighter® developed and implemented a new unpaid social media campaign, 'Move More April', with the aim to encourage people to stay physically active while staying at home.

'Move More April' encouraged individuals to download a physical activity calendar which was housed on the LiveLighter® website, and/or to follow the LiveLighter® social media pages for daily updates. Achievable exercise "challenges" that were accessible and could be performed without equipment were posted each day in April. The posts were positively framed with motivational and inclusive language.

The campaign reached over 107,130 people and achieved 3,527 engagements on Facebook. (These results compare favourably with data from the previous month, with LiveLighter® reaching 63,782 people and achieving 2,949 engagements in March.) The LiveLighter® webpage promoting the campaign had 4,865 unique page views, while the calendar was downloaded by 874 website users.

The results of this campaign suggest that the use of reactive, unpaid social media campaigns can be very effective in reaching target audiences. 'Move More April' provided several learnings that informed the creation of a more strategic non-TV campaign that was released in May.

Replacing a hard-hitting public health campaign with positively framed creative materials can drive user engagement and brand affinity during a time of public health crisis.

NSW Health Incident Action Plan for COVID-19 outbreaks in RACF

Authors: Dr Laksmi Govindasamy¹, Dr Anthony Zheng¹, Ms Shelley Thompson¹, Ms Sarah Alland¹, Dr Laura Collie¹, Dr Michael Douglas¹

Affiliations: ¹NSW Ministry of Health

Abstract:

Context and aim: A COVID-19 outbreak in a Residential Aged Care Facility (RACF) can have significant consequences. RACF residents are at increased risk of serious illness and death from COVID-19, due to higher prevalence of co-morbidities that may also delay identification of symptoms. Oversight of RACF is inter-jurisdictional in Australia, with Commonwealth and State government input during outbreak response.

Methods and analysis/research findings: NSW Health has responded to several protracted outbreaks of COVID-19 in RACFs, as well as 15 RACF with isolated cases. These learnings have been iteratively incorporated into a new Incident Action Plan (IAP) to guide public health management of RACF outbreaks.

Outbreak response in RACF for COVID-19 must be activated immediately following initial identification of a single case or development of symptoms in a single resident. Wide testing is vital to confirm the degree of spread and baseline transmission within the facility, and to investigate an initial source of the outbreak. This can include all residents, staff and associated community close contacts, and may include a combination of SARS-CoV-2 NAT and serology tests. Rigorous infection prevention and control practice, including appropriate training for staff, is difficult in the RACF setting, but crucial for a successful public health response.

Translational outcomes: IAP implementation has improved outbreak response and ensured systematic approaches to investigation, clinical management, and infection prevention and control procedures.

Future actions: The introduction of novel viruses such as SARS-CoV-2 can contribute to paradigm shifts in outbreak response in the RACF setting. Health authorities must consider early that existing approaches to other conditions, such as influenza, may not be suitable for a novel virus.

Collaborating to support primary care in times of Crisis

Authors: Ms Anais Le Gall¹, Ms Stacy Leveans¹, Ms Philippa Gately²

Affiliations: ¹Capital Health Network - ACT Primary Health Network, ²COORDINARE - SNSW Primary Health Network

Abstract:

Context and aim: Due to geographical boundaries, Australian Capital Territory (ACT) and Southern NSW (SNSW) share a strong relationship around the delivery of primary health services with workforce and patients moving across borders. The 2019 bushfires and COVID 19 pandemic led to increased pressure on, and disrupted access to, primary care across both regions. Access to relevant up-to-date clinical management and referral information was essential for health professionals.

Methods and analysis: The ACT & SNSW HealthPathways program responded by developing relevant pathways within a short timeframe. By 2nd January 2020, bushfire related pathways were live on site followed by the development of 9 COVID specific pathways. The information in the pathways were developed in collaboration with experts within NSW and consultation with ACT subject matter experts.

User numbers increased by 50% and page views increased from an average of 12,000 per month to 19,000. Google analytics was also used to monitor other emerging issues. Further evaluation is underway to determine the impact of the Health Pathways on patient care across ACT and SNSW, results will be available in August/September 2020.

Translational outcomes: Health Pathways is an online platform used by health professionals in the primary care setting to access up to date, relevant local information at times of a disaster. Data on common searches and views provided an insight into the needs of the community early and an opportunity to provide support to health professionals that was relevant.

Future actions:

Continue to collaborate across jurisdictions to:

- Streamline care for patients.
- Enable rapid access to information that supports high quality care regardless of location.
- Ensure cross-border differences are clearly understood and do not impact upon care delivery (i.e. legislative differences).

- Promote HealthPathways as an enabler for information sharing and supporting the patient journey across the health system.

Tuesday 27 October 2020

6A – COVID-19: Measuring

On Demand from 9:30am AEDT

Using ‘real-time’ whole genome sequencing to support public health response to COVID-19

Authors: Mrs Jennifer Case¹, Dr Alicia Arnott², Dr Rebecca Rockett², Dr Roy Byun¹, Dr Yuanfei Huang¹, Dr Laura Collie¹, Ms April Roberts-Witteveen¹, Prof Vitali Sintchenko², Dr Jen Kok², Dr Mailie Gall², Dr Connie Lam², Dr Karen-Ann Grey², Dr Jenny Draper², Dr Elena Martinez², Prof Dominic Dwyer², Dr Rosemarie Sadsad², Prof Sharon Chen²

Authors: ¹NSW Ministry of Health (MOH)- Public Health Response Branch COVID-19, ²Institute of Clinical Pathology and Medical Research (ICPMR)

Authors:

Context/Aim: The COVID-19 pandemic has provided a novel opportunity for using whole genome sequencing (WGS) to identify genomic similarity between clinical SARS-CoV-2 samples. To date there have been 3137 confirmed cases of COVID-19 in NSW and a total of 549 samples have been sequenced by ICPMR. The utility of WGS for immediate public health response and epidemiological investigations is described.

Findings: ICPMR tracks the transmission of SARS-CoV-2 in NSW utilising WGS to identify genomic similarity between samples from confirmed cases. With involvement from the NSW MOH, WGS has been facilitated in ‘real-time’ where results have been used to guide urgent public health advice. Previously unknown links between cases have been identified and understanding of community transmission has been enhanced through weekly reporting of results and epidemiological discussion between interdisciplinary stakeholders.

Translational outcomes: The use of ‘real-time’ WGS involved comparison of samples to determine genomic similarity and rapidly confirm epidemiological hypotheses. On two occasions urgent WGS was undertaken due to high-risk exposures associated with healthcare settings and findings supported identification of close-contacts and delivery of self-isolation advice. Additionally, WGS results have proven valuable in identifying breaches in infection control due to ongoing transmission, prompting review of policy and practice. Timely reporting of WGS has also informed epidemiological investigations where genomically linked cases have prompted additional retrospective investigation that has identified shared exposures. This has helped develop our understanding of transmission of COVID-19.

Future actions: Important public health decisions have been based on timely WGS results in NSW however, sourcing samples from the variety of pathology providers in NSW remains difficult. Both the challenge and successes of this work has been in building relationships between the diverse interdisciplinary stakeholder groups. Translating these findings into consistent practice requires resourcing and support from genomics researchers, laboratory management, the public health workforce and executives.

Identifying common factors in high transmission COVID-19 outbreaks in NSW

Authors: Shelley Thompson¹

Affiliations: ¹Ministry Of Health

Abstract:

The world is collectively learning and responding to the COVID-19 pandemic simultaneously. Identifying factors that contribute to increased transmission of SARS-CoV-2 will help to inform which public health interventions are most effective in limiting or reducing spread of the virus.

Three high transmission events in NSW have been compared: two in residential aged care facilities (RACFs) (5 staff, 16 residents and 34 staff, 31 resident cases respectively); and one childcare centre (CCC) (7 staff, 6 child, and 13 secondary cases)], to identify common factors associated with increased transmission.

The nature of contact and duration of exposure appear to contribute most to increased transmission of SARS-CoV-2. Carer relationships and household contacts were found to be particularly vulnerable.

Learnings from high transmission events early in the pandemic have informed how NSW Health have responded to later events, by being incorporated into incident action plans (IAP) to guide future public health response. Changes over time include reducing the number of cases required to constitute an outbreak within high risk settings (such as CCCs and RACFs) and trigger a public health response; how a ‘close contact’ is assessed and defined; and broadening testing criteria to include asymptomatic close contacts within RACFs.

An outbreak is defined as a single case within a CCC or RACF. All staff and children within a CCC are likely considered close contacts, given the difficulty in maintaining physical distance within this setting, and the nature of the relationship between staff and children. Within an RACF, early and widespread testing of staff and residents is now recommended to support source identification and prevention of transmission within the facility.

As the pandemic evolves, it is important to reflect on the efficacy of public health responses, revising IAPs and national guidelines as appropriate. Information sharing is pivotal to providing the best informed and evidence-based response.

Using technologies to Manage COVID-19 pandemic– a New South Wales’s perspective

Authors: Mr Kevin Wang¹, Mr Matthew Blanch¹, Mr Bruce Imhoff¹, Ms Paula Spokes¹

Affiliations: ¹NSW Health

Abstract:

Context: COVID-19 provided unprecedented challenges and unique learning opportunities to how New South Wales (NSW) Health used systems to support the pandemic response.

Methods and analysis: The Notifiable Conditions Information Management System (NCIMS) has been used by NSW Health since 2001, to support the management of notifiable conditions. It is used by public health units (PHUs) to collect information on cases of COVID-19 and to co-ordinate state-wide response. The COVID-19 pandemic threw unprecedented challenges to public health, due to its novel nature and evolving epidemiology. As a result, rapid changes were made to the application to adapt to the evolving situation.

Translational outcomes: From the early stage of the pandemic, the NCIMS infrastructure capacity and human resources received significant boost. The NSW public health emergency operations centre (PHEOC) and PHU staff surged which resulted in a significant increase in the number of NCIMS users. Over 900,000 laboratory records were imported into NCIMS between February and June, more than the system had handled in the five years prior to 2020 combined. To manage these challenges, major changes and configurations were made to the NCIMS application and infrastructure to enable rapid response. Where manual data imports are required, multiple quality control processes were developed to improve data quality, which greatly enhanced our contact tracing and epidemiological reporting capabilities. Survey functionality is being used to supplement manual follow up activities, increasing contact tracing capacity.

Future actions: It is important to understand and recognise the limitations of a critical technology platform such as NCIMS and adapt according to the operational requirements.

Challenges of epidemiological reporting of COVID-19 data – a New South Wales’s perspective

Authors: Kevin Wang¹, Dr Shaun Nielson¹, Dr Duleepa Jayasundara¹, Dr Steven Nigro¹, Ms Paula Spokes¹

Affiliations: ¹NSW Health

Abstract:

Context: Timely reporting of epidemiological data is critical to informing decisions on how to manage a disease outbreak. The rapidly evolving COVID-19 pandemic provided great challenges to biostatisticians and epidemiologists to provide timely information to inform the public health response. This included rapidly changing data, requirements and code-base, keeping shift-working teams up-to-date, and managing end-user feedback. In this presentation, we will discuss some of the methods that were developed to manage timely reporting of data in a rapidly changing environment.

Methods and analysis: The Notifiable Conditions Information Management System (NCIMS) has been used by New South Wales (NSW) Health since 2001, to support the public health response for notifiable conditions. It is used by public health units (PHUs) to manage local cases, and centrally by Health Protection NSW to co-ordinate the state-wide response. NCIMS includes demographic data (such as age, sex, and address), laboratory data (such as type of tests, specimen site, and test results), and has functionality to create links between cases, contacts, and outbreaks.

Translational outcomes: Daily reporting of data was developed using R (a statistical software). It culminated in the compilation of the code-base into two R packages to manage import/export of data and satisfy reporting requirements from different stakeholders, such as internal briefings, public reporting as well as providing data to public health units for local analysis. A suite of applications was found to greatly enhance communications, and documentation for the code-base.

Future actions: We suggest that an established method of communication, documentation and version control is crucial to overcome issues with rapidly changing data requirements and code-base during an emergency response. End-user consultation is also important to understand data requirements.

FluTracking: Insights from the Australian 2020 flu season and COVID-19 pandemic

Authors: Dr Craig Dalton^{1,3}, Sandra Carlson², Dr Zachary Howard^{2,3}, Zoe Baldwin², Prof David Durrheim^{1,3}

Affiliations: ¹School of Public Health and Medicine, University of Newcastle, ²Hunter New England Population Health, ³Hunter Medical Research Institute

Abstract:

Context/Aim: The COVID-19 pandemic has seen unprecedented restrictions on population movement. Australia responded early by closing international borders, quarantining Australians returning from overseas, and implementing a range of public health orders designed to limit the spread of the virus. We assessed the impact of the measures on the transmission of community-reported respiratory illness.

Methods and analysis: FluTracking is one of the largest online public health surveillance systems in the world. Participants respond to a short online weekly survey, answering questions about respiratory symptoms and healthcare seeking behaviours across Australia. Throughout the COVID-19 pandemic, it has received over 60,000 surveys each week. FluTracking aims to provide timely and valuable insights into community rates of influenza-like illness (ILI – defined as fever and cough), and healthcare seeking behaviours during the COVID-19 pandemic. ILI is used as a proxy for viral respiratory transmission in the community and can provide real-time insights into the pandemic situation.

Translational outcomes: Following the introduction of COVID-19 pandemic public health measures during February and March in Australia, FluTracking recorded the lowest ILI incidence since its inception in 2006. The weekly proportion of participants with ILI declined to 0.2% compared to a five- year average of 2.1% in May. These findings demonstrate how a surveillance system like FluTracking can be used to inform the effectiveness of containment measures on respiratory virus transmission. FluTracking data also identified the proportion of symptomatic participants seeking medical attention and COVID-19 testing. This information has been used to guide messaging about the need to increase testing opportunities.

Future actions: As Australia faces probable future waves of COVID-19 transmission, timely surveillance data from FluTracking provides valuable insights into healthcare seeking behaviours when symptomatic community respiratory virus transmission. FluTracking will continue to conduct surveys throughout 2020 and be able to present data to October 2020.

6B – COVID-19: Healthcare

On Demand from 9:30am AEDT

A pilot COVID-19 case investigation training module, a collaboration supporting disease containment

Authors: Dr Kate McBride², Professor Lynne Madden¹, Dr Jennifer Davids³, Dr Aishah Moore¹, Dr Brahm Marjadi², Ms Christine Newman³, Associate Professor Stephen Corbett³

Affiliations: ¹Notre Dame University, ²Western Sydney University, ³Western Sydney Local Health District

Abstract:

Containing the spread of COVID-19 requires the identification and isolation of people with infection and those with whom they have been in close contact. During an epidemic the volume of cases emerging requires the rapid mobilisation of health professionals competent to complete case investigations and contact tracing. This can be challenging for health systems, weakening the capacity for effective containment. In early March 2020 no standardised training existed in NSW to provide surge training for the multidisciplinary health workforce. In response a collaboration between University of Notre Dame Australia (UNDA), Western Sydney University medical schools, and Western Sydney Local Health District (WSLHD) piloted a COVID-19 case investigation training module.

The module comprised three days of training; a foundation day which delivered essential knowledge and skills followed by two days of supervised, experiential learning delivered in the health service workplace to gain competence. Participants were provided with background to the disease and the Public Health Act in NSW, as well as communication skills training anticipating the challenge of breaking bad news and likely difficult conversations with people during investigation interviews. Workplace experience observing and being observed conducting case investigations followed at the Public Health Unit (PHU).

The module was piloted with 19 individuals including health services staff from different professional backgrounds and final year UNDA medical students. The first day was successfully delivered online allowing social distancing of participants. The training was well received by participants, the WSLHD health service and the five participating PHUs. Most of these individuals immediately joined the COVID-19 surge workforce, indicative of the overall success of the programme.

Given the ongoing threat of a second surge of cases there is an urgent need to develop training such as this in sustainable, sharable formats that can be rapidly accessed for delivery.

Establishing an Expert Panel to review healthcare worker COVID-19 infections in NSW

Authors: Dr Caitlin Swift¹, Sarah Alland¹, Professor John Hall^{1,2}

Affiliations: ¹NSW Ministry of Health, ²University of New South Wales

Abstract:

Context and aim: Experience overseas during the COVID-19 pandemic has showed that healthcare workers are vulnerable to acquiring COVID-19. This puts individuals at risk but also has societal impacts through reductions in healthcare workforce and risk of further COVID-19 transmission throughout the community.

Methods and analysis: NSW Health developed a Healthcare Worker Investigation Protocol to respond to healthcare worker COVID-19 cases with an unknown source of infection and/or where the workplace was considered a potential source.

This Protocol included development of a case questionnaire with a focus on workplace exposures, personal protective equipment (PPE) use and infection prevention and control (IPC) training and practices, to supplement the standard COVID-19 case questionnaire and Local Health District incident management processes.

An Expert Panel was established to review healthcare worker case investigations, identify recommended actions and share learnings. The Expert Panel included experts with medical, nursing, IPC, patient safety, health workforce, clinical microbiology, virology, and public health practitioner backgrounds.

Translational outcomes: Key learnings from the Expert Panel have included the need for rigorous PPE practices and training regimes for all healthcare workers, with casual staff identified as particularly vulnerable.

Recommendations arising from these investigations are formally documented and accepted for implementation by the Chief Executive of the relevant health organisation and Chief Health Officer. Lessons learnt will also be shared with IPC and public health practitioners across health organisations through state-wide webinars.

Convening an Expert Panel has allowed a range of stakeholder perspectives to be obtained and strengthen the recommendations arising from each investigation.

Future actions: Implementing the recommended actions developed through this Healthcare Worker Investigation Protocol will reduce risk of COVID-19 transmission to healthcare workers in future. Continuing to share learnings during the COVID-19 pandemic is crucial as the properties and transmission dynamics of the novel SARS-CoV-2 virus continue to be discovered.

Surging the COVID-19 Public Health Emergency Operations Centre workforce: challenges and lessons

Authors: Dr Andrew Milat¹, Ms Dawn Arneman¹, Mr Joe Berry¹, Mr David Breheny¹, Ms Jo-Ann Cuneo¹, Ms Kate Kirkman¹, Ms Sai Rajasekharuni¹, Ms Kylie Catford¹, Mr Ranjit Nair¹, Ms Anna Black¹, Ms Brooke Pobihuszka¹, Ms Carmen Pereira², Prof Sarah Thackway¹

Affiliations: ¹NSW Ministry Of Health, ²HealthShare NSW

Abstract:

Context and aim: The Public Health Emergency Operations Centre (PHEOC) is the New South Wales (NSW) state operations centre for public health responses. In February 2020, the PHEOC was stood up in response to the COVID-19 global pandemic. As cases exponentially grew during March, we urgently needed to surge staff to support the PHEOC.

Methods and analysis: NSW Health has over 30 years of proactive strategies to build population health capacity and capability, including: population health training programs that have trained over 400 people; an expertly skilled population health division; a state-wide public health network and extensive stakeholder relationships across sectors. These strategies enabled NSW Health to surge at an unprecedented rate, quickly achieving a five-fold increase in the size of the PHEOC.

We established a dedicated recruitment, human resources and rostering team to drive workforce surge through redeployment of population health staff; targeted recruitment; population health trainee deployment and recruitment; and mass onboarding of staff from universities, research organisations and other government agencies.

The establishment and adaption of existing business processes and rapid onboarding and training enabled us to create an agile and flexible pool of staff able to support emerging areas of need across the health system and make a critical contribution to flattening the curve in NSW.

Translational outcomes: Rapid changes to systems and processes enabled end-to-end recruitment, human resources and rostering for the PHEOC.

Future actions: Long term investment in the population health workforce, expedited approval processes and the establishment of a dedicated recruitment, human resources and rostering team are essential to facilitate effective workforce surge.

Rapid and Responsive Record Linkage to support NSW Health COVID-19 pandemic response

Authors: Michael Nelson¹, Paula Spokes², Katie Irvine¹, Lee Taylor¹

Affiliations: ¹NSW Ministry Of Health, ²NSW Health

Abstract:

Aim: To describe rapid record linkage projects that have supported the NSW Health COVID-19 pandemic response.

Methods and analysis: In NSW, the Public Health Emergency Operations Centre (PHEOC) coordinates the COVID-19 pandemic response. The Centre for Health Record Linkage (CHeReL) hosts a secure, high-performing data linkage system, including a Master Linkage Key (MLK) of administrative health datasets, and generates linked data to inform policy decisions. In the period January to June 2020, a series of rapid record linkage projects were requested by PHEOC for a range of purposes.

1. Ascertainment of hospitalisations and deaths associated with COVID-19 for case and contact management
2. Ascertainment of cruise-ship and airline passengers with COVID-19
3. Characteristics of people hospitalised with COVID-19
4. Characteristics of the NSW Health workforce notified with COVID-19
5. Information of COVID-19 tests carried out on Aboriginal people and people born overseas

Use of personal information for linkage was authorised under The NSW Public Health Act 2010, the NSW Health Records and Information Privacy Act 2002 and/or the Public Health (COVID-19 Restrictions on Gathering and Movement) Order (No 2) 2020. In total 26 linkage projects were carried out.

Translational outcomes:

We describe two examples:

1. A daily linkage was carried out of confirmed COVID-19 cases to seven cruise ship manifests, to support case and contact tracing and management.
2. The COVID-19 Communicable Disease Register has been updated 11 times since March 2020, providing a rich dataset to answer questions on the health outcomes of COVID19 cases, such as hospitalisations and ICU admissions, and on access to testing in vulnerable populations.

Future actions: Enabling legislation combined with an up-to-date MLK, established data supply infrastructure and procedures are providing rapid and responsive record linkage to support the COVID-19 pandemic response.

When someone dies: Addressing information disparity and cultural responsiveness for bereaved Queenslanders

Authors: Ms Caitlin Lock¹, Ms Hayley McNamara¹, Ms Hannah McGhee¹

Affiliations: ¹*Clinical Excellence Queensland*

Abstract:

Context and aim: Bereavement support is an important part of end-of-life care; however, there is variation in the support provided to families and carers. A needs analysis survey with stakeholders across Queensland confirmed there was a gap in the availability of consistent, up-to-date, and culturally safe information for bereaved people. This need became particularly salient in preparing for the COVID-19 pandemic when many deaths were expected.

Methods and analysis: A multidisciplinary working group was established. The group recommended a suite of bereavement resources targeted to different groups including people who identify as Aboriginal and/or Torres Strait Islander, people with low English literacy, and people who read Arabic, simplified Chinese and Vietnamese.

It was important the resources are respectful and sensitive to the cultural diversity of end-of-life rituals and practices while providing clear, practical information. We partnered with consumers to ensure this balance was achieved. Consumer engagement - conducted virtually due to social distancing requirements - included focus groups, individual review, and consultation with consumers with intellectual disability. To ensure contextual and cultural appropriateness and safety, focus groups were held in various languages, representing a range of countries of origin and cultural identification.

Translational outcomes: The resources will support bereaved people at various points, from preparing for death, immediately following the death, and caring for self and others throughout the grief trajectory. Content includes practical information about preparing for the death of an adult family member or friend; what to do after someone dies; grief and loss; self-care; a checklist of suggested tasks; and a comprehensive list of support services.

Uptake has been high; over 40,000 resources were ordered in the first week.

Future actions: Evaluation will measure implementation outcomes including acceptability, adoption, and sustainability. Successful implementation will help healthcare professionals to support bereaved people in a difficult and confusing time.

Electronic prescriptions for Australia: a COVID-19 fast track to implementation

Authors: Mr Andrew Matthews¹, Ms Rowena Sierant², Mr Dan Beams¹, Ms Ashleigh Rhind¹, Ms Denise Woodward², Mr John Groome¹, Ms Odile Williams¹, Mr Paul Carroll¹, Ms Krista Palmer², Ms Kathryn Fraser¹, Ms Rowena Martin², Mr Bradley McCulloch¹, Mr Travis Hodgson¹

Affiliations: ¹*Australian Digital Health Agency*, ²*Digital Health and Services Australia Branch, Department of Health*

Abstract:

Context and aim: On 11 March 2020, the Australian Government announced its COVID-19 National Health Plan. This included acceleration of the implementation of electronic prescriptions to support the associated telehealth medicine initiatives. The goal was to enable electronic prescribing in general practice and dispensing of electronic prescriptions in community pharmacy, within 8 weeks.

Methods and analysis: The foundational technical framework for electronic prescribing was co-designed by the Australian Digital Health Agency (Agency) over 2019, working with industry, consumers, health professionals, peak bodies and governments. Changes to the legislative framework commenced from 31 October; this meant the core regulatory and technical changes were complete, to allow the use of an electronic prescription as an alternative to a paper prescription. But to 'fast-track' electronic prescriptions, the Agency negotiated agreements with 12 major software products (representing more than 80% of the clinical information system software used in general practice and community pharmacy) to release software conformant to a modified conformance profile, within the timeframe. Operation of a conformance test environment was established and electronic prescribing Communities of Interest (COIs) were set-up to ensure technical and workflow issues were addressed on a smaller scale, before broader national roll-out. An extensive health professional communications and awareness campaign was progressed.

Translational outcomes: Australia's first electronic prescription in primary care was successfully transmitted on 6 May, eight weeks after the Plan announcement. As at 1 July, 1490 electronic prescriptions had been transmitted and all 12 fast-track software products were conformant. All states and territories except Queensland had made regulatory changes to recognise the form of the electronic prescription. 29 COIs had been established, 66 digital and print assets were launched for download or print on demand and over 7500 health professionals attended Agency education webinars.

Future actions: National scaling of electronic prescriptions will begin from August 2020.

6C – COVID-19: Lifestyle Impacts

On Demand from 9:30am AEDT

Healthy at Home: adapting LiveLighter® messaging during COVID-19

Authors: James Stevens-cutler¹, Jasmine Teo¹, Gael Myers¹, Abbie-Clare Vidler¹, Jenny Atkins¹, Anne Finch¹, Ellen Hart¹, Kelly Kennington¹

Affiliations: ¹Cancer Council WA

Abstract:

LiveLighter® is a healthy lifestyle campaign funded by the WA Department of Health and implemented by Cancer Council WA. A major component of LiveLighter® is a state-wide TV-led mass media advertising which is delivered over three waves each year. In March 2020, as the public health significance of the COVID-19 pandemic became clear, Cancer Council WA decided to suspend LiveLighter® TV advertising to prevent any distraction from important corona virus-related health messaging. Instead, Cancer Council WA developed a new and contextualised non-TV led LiveLighter® campaign which sought to motivate people to lead a healthy lifestyle at home.. The 'Healthy At Home' campaign aimed to encourage people to eat healthy, be physically active and reduce alcohol consumption.

LiveLighter® has historically run two to three non-TV led campaigns throughout the year to promote secondary messages, especially in summer when TV viewership is low. Cancer Council WA was confident that an effective healthy lifestyle campaign for the autumn and winter months could be developed for placement on non-TV media channels. The creative materials would encourage healthy behaviours while also acknowledging the substantial change to many peoples' routines and the restrictions on peoples' freedom of movement which had recently been imposed.

Healthy At Home broadcast over 8 weeks in WA across retail radio, out-of-home (point of sale) and digital channels. Advertisements drove people to a new 'healthy at home hub' on the LiveLighter® website. The positively framed creative executions featured bright, colourful imagery of healthy behaviours being performed at home, and had an empowering, supportive tone. Complete campaign results will be available in late July.

Non-TV channels should not be overlooked when developing reactive campaigns at short notice. Health promotion campaigns must be able to be adaptive and flexible to remain relevant at times of national crisis.

COVID-19 and chronic illness – implications for policy and practice

Authors: Dr Robert Stanton^{1,3}, Dr Quyen To^{2,3}, Dr Saman Khalesi^{2,3}, Dr Susan L Williams, Dr Stephanie J Alley^{2,3}, Mrs Tanya L Thwaite^{2,3}, Dr Andrew S Fenning³, Professor Corneel Vandelanotte^{2,3}

Affiliations: ¹Cluster for Resilience and Wellbeing, Appleton Institute, Central Queensland University, ²Physical Activity Research Group, Appleton Institute, Central Queensland University, ³School of Health, Medical and Applied Sciences, Central Queensland University

Abstract:

Context and aim: As of July 1st 2020, Australia had over 8000 confirmed COVID-19 cases resulting in over 100 deaths. Over 78% of COVID-19-related deaths occurred in patients with chronic illnesses including respiratory and cardiovascular conditions. However, little is known about how Australians perceive chronic health risks associated with COVID-19.

Methods and analysis/research finding: As part of a larger study examining health behaviours of Australian adults during the early stages of COVID-19, participants were questioned regarding awareness of any relationships between a range of chronic conditions and COVID-19. Response options were, 'Yes', 'No', and 'Unsure'. 'Yes' responses were summed to create an 'awareness score'. Participants also reported demographic details, chronic illness status, and the number of chronic illnesses experienced. Independent samples t-tests and bivariate correlations examined the difference in awareness of the association between chronic illnesses and COVID-19 between genders, and those with and without chronic illness, and the relationship between awareness of the association between chronic illness and COVID-19 and the number of reported chronic illnesses.

Data for 1491 participants (mean age 50.5±14.9 years; 999 females) were analysed. Females had significantly greater awareness of the association between chronic illness and COVID-19 compared to males. Participants with chronic illnesses had significantly greater awareness of the association between chronic illness and COVID-19 compared to those without. Awareness of the association between chronic illness and COVID-19 was not significantly correlated with the number of reported chronic illnesses.

Translational outcomes: Public health messaging increases understanding of the link between COVID-19 and chronic illnesses but must be sensitive to differences in health literacy and preventative health behavior to ensure adherence to guidelines to reduce COVID-19 transmission.

Future actions: Public health messages regarding COVID-19-related health risks should be developed to ensure all Australians develop awareness of the risks COVID-19 poses to community members.

Chronic disease prevention during a global pandemic. Re-design of Life! during COVID-19

Authors: Ms Elleni Kaias, Ms Lauren Martin

Affiliations: ¹*Diabetes Victoria*

Abstract:

Context and aim: The Life! program is a Victorian government funded lifestyle modification program, aiming to reduce risk factors and incidence of type 2 diabetes and cardiovascular disease (CVD). The Life! program consists of group-based, face-to-face programs (including culturally tailored streams) and a Telephone Health Coaching (THC) program with seven sessions delivered over 12 months.

In response to the COVID-19 pandemic and associated government-imposed restrictions and policy measures, the Life! program was adapted to allow for continued delivery to support participants that complied with COVID-19 recommendations and safety measures.

Methods and analysis: In the early stages of the pandemic, all group-based courses were put on hold. During this time, immediate support was provided to Life! participants to assist them to maintain healthy behaviours, including a series of emails and webinars. Concurrently, in-depth consultations were conducted via surveys and interviews with program stakeholders, and a review of the program provided insight for a rapid co-design of a suite of alternative delivery options (ADO) to allow the continuation of program delivery.

Translational outcomes: The ADO included online group sessions, online one-on-one sessions, and telephone one-on-one sessions. Flexibility in data collection, and adapted program structure and content were introduced to support delivery and participant uptake. Between April and June 2020, 552 new participant commencements were achieved, compared to 1551 commencement in 2019.

Future actions: Due to the successful implementation of the ADO, Life! will continue to explore the use of technology to deliver the program. An evaluation for the ADO program delivery has been planned, and surveys developed. The findings from the evaluation will inform future program delivery options.

COVID-19 impact on diet & physical activity to inform healthy lifestyle campaign

Authors: Ms Claudia Gascoyne¹, Alison McAleese², Dr Belinda Morley¹, Emily Falduto², Kelly Kennington³, Ellen Hart³

Affiliations: ¹*Centre for Behavioural Research in Cancer, Cancer Council Victoria*, ²*Prevention Division, Cancer Council Victoria*, ³*Cancer Council Western Australia*

Abstract:

Context and aim: COVID-19 has led to restrictions that have impacted the daily lives of Australian adults and families. This includes the way that we shop, the type and amount of foods we consume, and physical activity undertaken. The survey aimed to assess the quality and quantity of changes in adult's eating habits and physical activity as a result of COVID-19 restrictions to inform future campaign messaging about attaining and maintaining a healthy lifestyle.

Methods and analysis/research findings: Shape of Australia is a cross-sectional survey of 2,000 adults aged 18 to 65 from all Australian states and territories with the sample recruited in July from a nonprobability online panel. Results will be available prior to the conference and will report changes in household structure and income, snacking behaviour, fruit, vegetable, fast food, sugary drink and alcohol consumption, household grocery expenditure, use of online delivery services, meal preparation, physical activity and screen time that have occurred during COVID-19 restrictions and whether it is anticipated these changes will be maintained in the future. Results will also report on differing impacts of COVID-19 restrictions on demographic subgroups including parents and residents of low socio-economic areas.

Translational outcomes: These results will inform the nature and content of campaign messaging aimed at encouraging the adoption and maintenance of healthy eating and physical activity behaviours. This messaging will be primarily delivered via the mass media but will also seek to engage the community through social media, online resources and advocacy.

Future actions: Campaign messaging aimed at promoting a healthy lifestyle will need to be responsive to the significant changes to everyday life that have occurred as a result of COVID-19 restrictions.

Smokers' attitudes, behaviours, and perceived health risk during the COVID-19 pandemic

Authors: Dr Natalia Lizama^{1,2}, Liyuwork Dana², Dr Kaaren Watts², Hayley Grant², Elise Alexander², Assoc Prof Moira O'Connor², Fiona Phillips¹, Sarah Beasley¹, Rebecca Salsano¹

Affiliations: ¹*Cancer Council WA*, ²*Curtin University*

Abstract:

Context and aim: Research suggests that smokers may be at increased risk of dying from or developing severe outcomes from COVID-19. The current pandemic appears to have prompted quitting intentions among Australian smokers, with notable increases observed in the number of quitting app downloads since early 2020. The aim of the present research is to measure Western Australian smokers' behaviours, attitudes, and perceived risk regarding tobacco use in the context of the COVID-19 pandemic.

Methods and analysis: Approximately 400 Western Australian smokers and recent quitters aged 18-54 will participate in telephone surveys from April to August 2020. Respondents will report their perceived personal health and financial risks from

COVID-19, as well as their beliefs about the effect of smoking on risk of severe complications from COVID-19. Respondents will also describe any changes to smoking habits and tobacco purchasing behaviours that developed during the pandemic. Findings from quantitative and qualitative analyses of responses will be presented.

Translational outcomes: The findings from this research will offer a unique glimpse into smokers' perceived risk of illness and changes in smoking behaviour in the context of a global respiratory health crisis. The results will provide insight into the complex factors that motivate smokers to change their smoking habits or render it difficult for them to reduce and quit. The findings will be useful for developing future anti-tobacco public education campaigns, particularly those that focus on the health risks of smoking.

Future action: This research can be used to inform future public education campaigns and advocacy for policies that encourage smokers to quit, during disasters and health emergency circumstances such as the current COVID-19 pandemic, and beyond.

Learning objectives:

- Understand how smokers perceive health risks from smoking in the context of COVID-19.
- Learn what prompted smokers to change smoking behaviours during the pandemic.

Wednesday 28 October 2020

P2 - E-Poster Presentations

2:45pm – 3:15pm AEDT

An international award-winning photograph illustrates how graphics convey climate change communication messages.

Authors: Mrs Deborah Hilton¹

Affiliations: ¹Deborah Hilton Statistics Online [<http://sites.google.com/site/deborahhilton/>]

Abstract:

Context and aim: The Public Health Association of Australia climate change team prepare discussion papers and policies outlining the urgent necessity to limit global warming. The Intergovernmental Panel on Climate Change (IPCC), report an increase of 1.5-2°C is catastrophic and significant for sea level rise, loss of biodiversity and ecosystem destruction [species loss, extinction], ocean temperature and acidity changes, disruptions to food and water availability, community health [impacts of heat on health, occupational diseases, mental health] and financial instability. Action is critical and high priority in that policy measures work to mitigate adverse environmental changes and hence protect communities. Aside from written documents, graphics have a fundamental pivotal role in policy communication. Frederick R. Barnard in 1921, published a piece commending the effectiveness of graphics in advertising titled; "One look is worth a thousand words".

Methods and analysis: The author recently selected a photograph from Stephen Hilton's amateur photographic library to enter the Asia Pacific Academic Consortium for Public Health photographic competition in Thailand. The theme related to sustainable developmental goals and his magnificent tree photograph won the competition. The accompanying description was; 'Climate change, deforestation, tree logging, global warming, concrete monstrosities, either roads, buildings or car parks, causes loss of the forest, butterflies, and the wildlife that inhabit there. This tree with green and autumn leaves, with lovely reflections highlights the beauty of nature that we must protect. Don't destroy our environment'.

Translational outcomes: This international award-winning photograph is a perfect representation of the Chinese proverb/phrase "one picture is worth ten thousand words", meaning images convey an idea quickly and more effectively than the written word.

Future actions: Public health committees must utilise graphics on policy documents, websites and flyers as these superb images have dramatic influence over opinions, understanding and collective action.

A new language for Ecological Public Health

Authors: Dr Michael Bentley¹

Affiliations: ¹Flinders University

Abstract:

Context and aim: The concept of conviviality – 'living with' – in an ecological sense connotes how living with the more-than-human inhabitants in our locales opens up new ways of thinking about ecological public health. Crafting an ecological public health in the Anthropocene re-imagines public health in a way that acknowledges humans are not separate from, nor central to, the living planet. (Bentley 2019). The aim of this e-poster is to extend thinking on these concepts and their terms.

Methods and analysis: A brief literature scan and narrative review of terms related to the Anthropocene, ecology, and the human relationship with the environment suggests the continuing separation between people and nature is detrimental to human health and planetary health.

Terms such as "ecology," "ecological," and "ecosystem" while useful in scientific enquiry, 'fail to capture the emotional and cultural dimensions of the human relationship to land'. (Albrecht 2019)

Indeed, Indigenous understandings of the interrelationship of Aboriginal people and Country can inform better ways of living together in contemporary Australia.

Translational outcomes: Monbiot (2017) argues that '[if] we want people to engage with the living world, we should stop using such constipated terms to describe our relationship to it.' A new language is needed. Monbiot argues we should 'stop using the word environment, and use terms such as "living planet" and "natural world" instead, as they allow us to form a picture of what we are describing.'

Future actions: To extend ecological public health thinking, I suggest the principles of an ecological approach to public health – 'conviviality', 'equity', 'sustainability' and 'global responsibility' – posited over thirty years ago by Kickbusch (1987) are combined into a Symbiocene health, which Albrecht (2019) suggests 'offers the prospect of human sharing and collaboration in the maintenance and optimisation of life and health for "all".'

Roadmap to a stable climate and public health through sustainable food systems.

Authors: Dr Sonia Nuttman¹, Dr Justin Lawson¹, Ms Teresa Capetola¹

Affiliations: ¹Deakin University

Abstract:

Context and aim: It is well documented that industrialised food systems, including within Australia, pose significant threats to ecosystems through practices that contribute to soil degradation, pollution and food waste to name a few. Industrialised food system practices are also one of the most significant contributors to climate change. Resulting climatic changes threaten the production of food at global and national levels. It is also indicated that, in such a circumstance, human health will be compromised as access to fresh, healthy food is a requirement for optimal health and wellbeing. It has been argued that healthy and sustainable food systems are required to adapt to and mitigate against climate change and provide protection for public health. Few frameworks, however, exist to inform public health policy and practice towards this vision.

Methods and analysis: This paper presents a framework which has been developed to guide public health policy and practice towards healthy and sustainable food systems. This framework emanated from a PhD study that explored the potential for food insecurity to be addressed from a sustainability perspective.

Translational outcomes and Future actions: This framework draws on systems thinking to capture the complexity of the food system. A focus on systems thinking recognises that the multifaceted issues inherent within current industrialised food systems (e.g. climate change, food waste, ecosystem degradation, food insecurity, obesity) are all interconnected. This paper demonstrates how such a framework could be utilised in public health policy and practice to address shared goals of ecological protection, climate adaptation and mitigation and public health goals of food security, healthy eating and chronic illness prevention.

Is that all?: What we know about the sleep of Australian adults

Authors: Dr Yu Sun Bin¹

Affiliations: ¹Charles Perkins Centre

Abstract:

Context & Aim: Poor sleep is an independent risk factor for poor health. Insufficient/short (≤ 6 h) sleep, excess/long (> 9 h) sleep duration, and poor sleep quality double the risk of depression and anxiety, and increase the risk for accidents and injury, cardiometabolic disease, and premature death. However, little is known about the sleep health of the Australian population.

Methods & Analysis: We analysed data from 11,476 respondents to the 2011-2013 Australian Health Survey – the only national health survey in which sleep has been captured. Respondents aged 5 to 85 were asked about last night's bed-time and wake-time and to indicate whether this was typical of usual sleep for that night of the week. Primary carers responded for children.

Research Findings: "Typical" sleep duration was reported by 68.1% (sleeping 8.3 hours on average) with 14.3% indicating that they usually slept more and 10.3% that they usually slept less. Those who usually slept more averaged 7.4 hours, whilst those who typically slept less slept 9.3 hours and those who did not have typical sleep slept 8.2 hours. Only 1.2% of adult respondents reported using sleep medications, but 72.2% had been using these medications for over 6 months well in excess of recommendations.

Translational Outcomes: Understanding the prevalence and distribution of poor sleep in the population will help to inform public health interventions for promoting sleep health. However, the only national survey with sleep information was collected more 7 years ago with sleep health indicators removed from more recent surveys.

Future Actions: Nationally representative data on sleep health in Australian adults is lacking and this hampers health promotion efforts despite the wealth of evidence on the importance of poor sleep as a lifestyle risk factor.

Acknowledgements: We thank the Australian Bureau of Statistics for data access.

Professional needs of International medical graduates in rural and remote Australia

Authors: Dr Xiaoyue Xu¹, Professor Teng Liaw¹, Professor Karin Sanders², Dr Kylie Vuong¹, Professor John Hall¹

Affiliations: ¹UNSW School of Public Health and Community Medicine, ²UNSW School of Business

Abstract:

Context and aim: As part of a global phenomenon Australia recruits international medical graduates (IMGs) to meet shortages of doctors particularly in regional and remote regions. IMGs form a significant proportion of the Australian medical workforce, especially in rural and remote areas where they make up 40% to 60% of the medical workforce. The aim of this study is to investigate the significant gap in current knowledge about the professional needs and work satisfaction of IMGs in rural and remote Australia.

Method and analysis/research findings: We conducted a systematic review of English peer-reviewed research articles between 2000 and 2020, according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). A series of searches using MEDLINE, PUBMED, CINAHL and SCOPUS were conducted using relevant terms for participants (IMGs) and concept of interest (career paths, continuing professional development, work satisfaction and career intentions). The initial

search identified 2,127 articles. Databases search results were imported into Endnote then Covidence. The final number of articles to be included will be identified after titles and abstracts are reviewed by two reviewers. Any disparities between reviewers about which articles to include will be discussed and resolved by consensus.

Translational outcomes: The research findings will be reported in the conference in terms of IMGs' career paths, their continuing professional development activities, work satisfaction and career intentions. The research outcomes will address that knowledge gap and will provide an evidence base for policy decisions that support IMGs in their professional practice.

Future action: Policy decisions need to be further developed on IMGs registration, their performance and practice and retention in rural and remote Australia.

Workshops

W1 - How do we improve the public health messaging during periods of bushfire smoke and poor air quality?

Hosts: Centre for Air pollution, energy and health Research (CAR)

Abstract:

About the workshop: The 2019-20 bushfire season shone a spotlight on the absence of consistent public health communication surrounding bushfire smoke and poor air quality more generally. This workshop, run by the Centre for Air pollution, energy and health Research (CAR) will bring together researchers, not for profits, public health organisations, public health practitioners and government representatives in a 'knowledge exchange' to discuss questions such as:

- What type of public health information does the public need around bushfire smoke and poor air quality generally? In what formats?
- What are the knowledge gaps that exist around the use and effectiveness of public health information during periods of poor air quality?
- What are the opportunities for the attendees to collaborate to improve public health information on poor air quality?
- What roles and responsibilities amongst different organisations are envisioned?

This workshop will be highly interactive and discussions will be documented by CAR and provided to attendees after the conference.

Learning outcomes:

- identifying the needs and 'lived experience' of the public in terms of public health messaging during periods of poor air quality (with a focus on bushfire smoke)
- identifying knowledge gaps in public health messaging during periods of poor air quality
- discussing solutions and ways forward in improving public health messaging during periods of poor air quality
- making connections with others with an interest/need to improve public health messaging with a view to collaborate

W2 – Addressing Climate Change Vulnerability through Health Impact Assessment: A framework for Health Services

Hosts: The Healthy Urban Environment Collaboratory

Abstract:

About the workshop: Climate change impacts on human health are evident in Australia and are predicted to become more frequent and intense. While the effects of these climate changes are likely to impact everyone, disadvantaged populations are potentially at risk of being disproportionately affected, compounding the social and economic inequalities that already contribute to existing health inequities. Local Health Districts (LHDs) play a critical role in responding to changing health needs of the local population, and to the likely effects of climate change on health service resources, workforce and infrastructure.

Health Impact Assessment (HIA) is a systematic process that considers the potential health impacts of a proposal during the planning stages and offers recommendations to mitigate harms and maximise benefits.

Climate change vulnerability health impact assessment (CCVHIA) provides a framework and process for health services to assess the potential impacts of climate change on vulnerable populations and develop responses using a vulnerability lens, which considers the interactions between exposure, sensitivity and adaptive capacity and resilience.

The workshop consists of three parts. Firstly, we will present and discuss ways of conceptualising vulnerability and resilience in relation to climate change. We will then provide an introduction to and overview of the CCVHIA framework and related tools. We will then facilitate an interactive session with participants.

Learning outcomes:

Learn about Climate Change Vulnerability Health Impact Assessment Framework

Understand ways of conceptualising climate change vulnerability and resilience

Identify actions that health services can take to address climate change vulnerability

W3 – How do we use what we know? The practice-evidence exchange in disaster recovery

Hosts: University of Melbourne

Abstract:

About the workshop: Climate change impacts on human health are evident in Australia and are predicted to become more frequent and intense. While the effects of these climate changes are likely to impact everyone, disadvantaged populations are

potentially at risk of being disproportionately affected, compounding the social and economic inequalities that already contribute to existing health inequities. Local Health Districts (LHDs) play a critical role in responding to changing health needs of the local population, and to the likely effects of climate change on health service resources, workforce and infrastructure.

Health Impact Assessment (HIA) is a systematic process that considers the potential health impacts of a proposal during the planning stages and offers recommendations to mitigate harms and maximise benefits.

Climate change vulnerability health impact assessment (CCVHIA) provides a framework and process for health services to assess the potential impacts of climate change on vulnerable populations and develop responses using a vulnerability lens, which considers the interactions between exposure, sensitivity and adaptive capacity and resilience.

The workshop consists of three parts. Firstly, we will present and discuss ways of conceptualising vulnerability and resilience in relation to climate change. We will then provide an introduction to and overview of the CCVHIA framework and related tools. We will then facilitate an interactive session with participants.

Learning outcomes:

Learn about Climate Change Vulnerability Health Impact Assessment Framework

Understand ways of conceptualising climate change vulnerability and resilience

Identify actions that health services can take to address climate change vulnerability

A

Adams, Catherine	40
Adderley, Marijke	9
Al Agili , Dania	26
Al Miqdadi, Modhar	52
Albar, Nassreen	26
Alexander, Elise	62
Alexandra, Leila	12
Allan, Leah	11
Alland, Sarah	53, 58
Allen, Keeley	27
Allender, Steven	8

Alley, Stephanie J	61
Alston, Laura	8
Amin, Janaki	29
Anderiesz, Cleola	37, 41, 45
Andrew, Neil	47
Anstey, Kaarin	44
Arneman, Dawn	59
Arnott, Alicia	55
Arundell, Lauren	22, 43
Atkins, Jenny	52, 61
Austen, Melissa	37, 45

B

Bag, Shopna K	24
Baird, Marian	15
Balasubramanian, Madhan	40
Baldock, Katherine	16
Baldwin, Zoe	56
Barker, Ruth	31
Barratt, Alexandra	19
Basser, Jeremy	18
Batchelor, Fraces	44
Batterham, Roy	8, 36
Bauman, Adrian	27, 44
Beams, Dan	60
Beasley, Sarah	62
Beaty, Matt	7
Bell, Colin	8
Bell, Katy	19
Bentley, Michael	64
Berry, Joe	59
Bi, Peng	6, 7
Bin, Yu Sun	65
Bizuayehu, Habtamu Mellie	49
Black, Anna	59

Blanch, Matthew	56
Boerma, Clare	41
Bogard, Jessica	47
Bone, Angie	34
Botfield, Jessica	41
Bouchoucha, Stéphane	52
Bowles, Devin	18
Bowman, David	34
Bragge, Peter	28
Breheny, David	59
Brewer, Tom	47
Briggs, Hannah	25
Brimblecombe, Julie	46
Brooker, C	14
Brown, Andrew	18
Brown, Andrew D	8
Brown, Helen	22, 43
Buckland, Tammy	25
Burch, Hayden	50
Bwititi, Phillip	28
Byun, Roy	55

C

Caleche, Hanny	40
Callisaya, Michele	44
Campbell, Narelle	31
Campbell, Sharon	33, 34

Chen, Sharon	55
Cheng, Christina	8, 36
Cheng, Yan (wendy)	41
Chia, Debbie	30

L

Canning, Colleen	15
Caon Camara, Giane	44
Capetola, Teresa	17, 65
Carey, Rachel	12
Carlson, Sandra	39, 56
Carroll, Paul	60
Case, Jennifer	55
Cassar, Samuel	22
Catford, Kylie	59
Cave, Leah	39
Chan, Lilian	27
Chan, Priscilla	10
Chan Moi Fat, Sandrine	22
Chand, Marina	11
Chatterji, Madhumati	48
Chau, Josephine	15
Chau, Josephine Y.	29
Chen, Cheng	7
Chen, Ming	30

D

Dalton, Craig	39, 56
Dana, Liyuwork	43
Dana, Liyuwork Mitiku	62
Dartnell, Evie	21
Davids, Jennifer	58
Dawson, Rik	44
Deng, Lucy	24
Der Vartanian, Carolyn	37, 45

E

Earle, Karleigh	48
Eckert, Jacki	22
Edge, Rhiannon	10
Elbrink, Sanne	8, 36
Elmer, Shandell	8, 36

F

Falconer, Sandra	34
------------------	----

Chin, Jian Wen	17
Chipman, Vivienne	41
Chojenta, Catherine	49
Chondros, Elizabeth	48
Christian, Bradley	40
Chynoweth, Jennifer	41
Coller, Lee	8, 18
Collie, Laura	53, 55
Cook, Anthony	30
Cooper, Matthew N.	39
Corbett, Stephen	58
Crane, Mel	34
Creagh, A	14
Crooks, Kristy	4, 25, 39
Crosby, Lucy	38
Cruickshank, Marilyn	52
Cubillo, Beau	46
Cullerton, Katherine	46
Cuneo, Jo-Ann	59

Douglas, Michael	53
Douglas, R	14
Douglas, Richelle	14

Dowden, Michelle	3
Draper, Jenny	55
Durrheim, David	56
Dwyer, Dominic	55

Elwell, Michelle	3
Eriksson, Hampus	47
Estoesta, Jane	41
Eurlich, Jacob	47
Evans, Mitchell	19

Ferguson, Megan	46
-----------------	----

Falduto, Emily	13
Falduto, Emily	62
Farmery, Anna	47
Farrell, Penny	47
Farrugia, Tamsin	41
Felmingham, Tiana	18
Fenning, Andrew S	61

G

Gall, Mailie	55
Galrao, Mariana	14
Garcia, Paola	30
Gardner, Karen	3
Garvey, Kate	33
Gascoyne, Claudia	62
Gately, Philippa	53
Gellert, Brad	49
Gillison, Kylie	22
Glass, Kathryn	27
Glenister, Kristen	9, 36
Glennie, Miriam	3
Gomez, Maria	32, 50
Gonzalez, Itziar	47

H

Haigh, Fiona	12
Haigh , Fiona	15
Hall, John	65
Hall, Nina L.	38
Hansen, Alana	6
Hart, Ellen	61, 62
Hassett, Leanne	15
Hawkins, Melanie	8, 36
Hector, Debra	37, 45
Henderson- Wilson , Claire	17
Hickey, Katarnya	13
Hill, Anne-Marie	44
Hill, Keith	44

I

Imhoff, Bruce	56
Ingleton, Andrew	32, 49, 50

Finch, Anne	52, 61
Fitzgerald, Emma	31
FitzGerald, Vilma	5
Fraser, Kathryn	60
Freeman, Becky	27
Fu, Stephanie	44

Goodwin, Denise	23
Gov, Soour	15
Govindasamy, Laksmi	30, 53
Grant, Annie	48
Grant, Hayley	43
Grant , Hayley	62
Green, Sonny	4
Grey, Karen-Ann	55
Gribble, Karleen	11
Groome, John	60
Grosse, Mark	3
Grundy, Emily	23
Grunseit, Anne	15, 44
Gupta, Leena	32, 50

Hilton, Deborah	29, 64
Hobson, Georgina	38
Hodgson, Travis	60
Holden, Stacey	46
Howard, Zachary	56
Howland-Rose, Kevin	32
Hsaio, Kai	50
Hsiao, Kai	32
Hsiao, Kai-Hsun	50
Hsieh, Wing	28
Huang, Yuanfei	55
Hunt, Paul	33
Hunter, Arnagretta	6

Irvine, Katie	59
---------------	----

J

James, Tobias	6	Johnstone, Travers	24
Jaques, Karla	12, 15	Johnstone, Travers	32
Jayasundara, Duleepa	56	Jones, Penelope J	34
Johnston, Fay H	33, 34		

K

Kaias, Elleni	61	Kirkman, Kate	59
Karnaghan, Jo	30	Klerck, Michael	38
Katellaris, Anthea	24	Koirala, Archana	24
L			
Keefe, Dorothy	37	Kok, Jen	55
Keefe PSM MD, Dorothy	41, 45	Komaric, Nera	11
Kennedy, Georgina	22	Kumar, Saravana	16
Kennington, Kelly	13, 61, 62	Kunstler, Breanne	23, 28
Khalesi, Saman	61	Kwasnicka, Dominika	15
Khanlari, Sarah	24		

L

L. Harris, Melissa	49	Lizama, Natalia	62
Laachir, Karima	6	Lloyd, Kyle	18
Laka, Mah	41	Lock, Caitlin	60
Lam, Connie	55	Locke, Danja	14, 37
LaMontagne, Tony	17	Longmore, Sarah	31
Laranjo, Liliana	22	Lord, Stephen	44
Lawrence, Blake	43	Loton, Carolyn	33, 40
Lawson, Justin	65	Loxton, Deborah	49
Le Gall, Anais	53	Lucani, Christopher	34
Leveans, Stacy	53	Lucas, James	52
Li, Zhicheng	10	Lucas, Robyn	6
Liaw, Teng	65	Lumanog, Joseph	22
Liu, Jingwen	6	Lymer, Sharyn	42

M

M. Forder, Peta	49	McGeechan, Kevin	41
Macartney, Kristine K	24	McGhee, Hannah	60
Maccora, Olivia	18	McIntyre, Erica	17
Mackie, Brenda	7	McKeown, Scott	33
Mackintosh, Shylie	44	McNamara, Hayley	60

Madden, Lynne	58
Maddison, Ralph	22
Mahesh, Rewena	19
Mahoney, Ray	38
Marcus, Kanchan	40
Marjadi, Brahm	58
Martin, Fiona	15
Martin, Jane	13
Martin, Lauren	61
Martin, Rachel	40
Martin, Rowena	60
Martinez, Elena	55
Mashyakhy, Mohammed	26
Matthews, Andrew	60
Mazariego, Carolyn	10
McAleese, Alison	13, 62
McAlister, Scott	19
Mcbride, Kate	58
McCartan, Julia	46
McCulloch, Bradley	60
McGain, Forbes	19, 50

N

Nadarajah, Ranjit	8, 36
Nair, Ranjit	59
Nairn, John	7
Najjar, Zeina	32, 50
Nassar, Natasha	24
Nelson, Michael	59
Newman, Christine	58

O

Obrenovic, Vladislav	32
O'Connor, Moira	43
O'Connor, Moira	62

P

Palfrey, Nicola	6
Palmer, Krista	60
Panchuk, Shannon	7
Parker, Kate	22, 43

McNamara, Kevin	40
Merlin, Tracy	41
Meyers, Josh	49
Mihrshahi, Seema	29
Milat, Andrew	59
Milazzo, Adriana	41
Milch, Vivienne	37, 41, 45
Miller, Annie	10
Miller, Nicole	16
Montfort-Parasuraman, Arun	32, 50
Moon, Lynelle	21
Moore, Aishah	58
Moore, Helen	42
Morley, Belinda	62
Morrow, April	10
Mulcahy, Georgina	47
Mulvaney, Vanora	34
Murphy, Maureen	12, 28
Myers, Gael	52
Myers, Gael	61

Nielson, Shaun	56
Nigro, Steven	56
Nitschke, Monika	4
Nonga, Nichol	47
Noy, Sue	17
Nuttman, Sonia	65
Nwose, Ezekiel	28

O'Hara, Blythe	27
O'leary, Lyndal	31
Osborne, Richard	8, 36

Pereira, Carmen	59
Phan, Hoang	37
Phillips, Fiona	62
Phongsavan, Philayrath	15, 27

Parry, Amy	27
Pascaud, Aurora	11
Patrick, Rebecca	17

Paulger, Kerrie	8, 36
Pearce, Karma	16

Peisley, Genene	15
-----------------	----

Q

Quadri, Faeq	26
Quin, Emma	32
Quinn, Emma	50

R

Rajasekharuni, Sai	59
Reeve, Erica	47

Reid, Andrew	12
--------------	----

Reynolds, Anna	21
Rhind, Ashleigh	60

Ridgers, Nicky	22
Ridgers, Nicola D.	43
Rissel, Chris	31

S

Sadsad, Rosemarie	55
Saeri, Alexander	23
Saeri, Alexander	28
Sahlqvist,	22, 43
Shannon	
Said, Cathy	44
Salisbury, Jane	45
Salmon, Jo	22, 43
Salsano, Rebecca	62
Sanders, Karin	65
Sartori, Ainslie	13
Sathiaraj, Rahul	45

Schiavuzzi, Alexandra	10
Schmidtke, Alison	13
Schutze, Heike	5
Scolyer, Meg	3
Scott, Jessica	47

Pilbeam, Nicholas	50
Pilbeam, Nick	50
Pobihuska, Brooke	59
Podubinski, Tegan	9, 36
Prasath Monfort	50
Parasuraman, Arun	
Pryor, Alice	21

Quinn, Helen E	24
Quinn, Phoebe	18
Quiroz, Juan	22

Robards, Fiona	17
Roberts-	55
Witteveen, April	
Roberts-	24
Witteveen , April	
Rockett, Rebecca	24
Rockett, Rebecca	55

J	
Ronto, Rimante	29
Russell, Sarah	33
Ryan, Elizabeth	30

Sherrington, Cathie	44
Short, Stephanie	40
Shubayr, Mosa	26
Sierant, Rowena	60

Sintchenko, Vitali	55
Slattey, Peter	23, 28
Smith, Liam	28
Smith, S	14
Smith, Tara	30
Sohn, Woosung	40
Souza De Oliveira, Juliana	44
Spokes, Paula	56, 59

Stanley, Allen	39
Stanley, Priscilla	46
Stanton, Robert	61
Stevens-cutler, James	61

Senanayake, Sanjaya	21
Sesto, Romina	44
Sharp, Michael	47
Shepherd, Carrington C.J.	39
Shepherd, Roberta	15, 44
Sherrington, Catherine	15, 44

Stothers, Kylie	31
Strugnell, Claudia	8
Suleman, Sameera	11
Sullivan, Sheena	34
Superina, Alessandra	3
Swift, Caitlin	58

T

Tait, Peter	17
Tait, Peter	19
Talati , Zenobia	43
Tan, Chia Howe	19
Taylor, Kylie	4
Taylor, Kylie	25
Taylor, Lee	59
Taylor, Natalie	10
Teo, Jasmine	52, 61
Thackway, Sarah	59
Thompson, Shelley	25, 53, 55
Thow, Anne Marie	47
Thwaite, Tanya L	61

Tiedemann, Anne	15, 44
Tiernan, Gabriella	10
Timperio, Anna	22, 43
To, Quyen	61
Tobin, Sean	30
Todd, Isobel	34
Todd, Katherine	25
Toffoletti, Kim	22
Tong, Huong Ly	22
Trevena, Helen	47
Trudgett, Sarah	46
Truong, Vien	37
Turnbull, Scott	37, 45

U

Uddin, Riaz	22, 43
-------------	--------

V

van Burgel, Emma	46
------------------	----

V

Vandelanotte, Corneel	61
Vardoulakis, Sotiris	6
Varghese, Blessen	6
VARGHESE, BLESSON	7
Vassallo, Amy	10

Vatucawaqa, Penina	47
Veitch, Jenny	22
Veitch, Jenny	43
Vidler, Abbie- Clare	61
Vuong, Kylie	65

W

Wallbank, Geraldine	15
Walsh, Erin	6

Williams, Sarah	50
Williams, Susan L	94

Wang, Kevin	56
Wang, Rhona	37, 41, 45
Wate, Jillian	47
Watts, Kaaren	62
West, Courtney	44
Wheeler, Amanda J	34
Whelan, Jillian	8
White, Emily	18
Williams, Jarryd	22
Williams, Odile	60

X

Xu, Xiaoyue	65
-------------	----

Y

Yang, Shin Yi	18
Yang, Tina	7

Z

Zapart, Siggi	12, 15
Zawahar, Zaman	8, 36
Zheng, Anthony	30, 53

Williamson, Bhiamie	18
Williamson, Christine	4
Williamson, Grant J	34
Wingett, Amanda	18
Winkler, Noni	24
Wood, Nicholas J	24
Woods, Candice	41
Woods, Candice-Brooke	45
Woodward, Denise	60

Yapa, Chaturangi	30
------------------	----

Zino, Veronica	5
Zubrick, Stephen R.	39