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Western NSW Health Research Network Inc

WHRN2022 Research Symposium

INTERWEAVING THE THREADS: TYING RURAL HEALTH POLICY TO RURAL HEALTH RESEARCH

Sponsored by

Monday 24 October
Workshops & Western NSW Researcher of the Year Awards

Tuesday 25 October
WHRN2022 Research Symposium

Members and Partners

Day 1 Workshops

Aboriginal Research	Adolescent Health	Arts & Health	Collaborative Commissioning
Workshop 1 **9am-12pm** Aboriginal community-led research yarn-up	No session	**Workshop 4** **11am-12pm** Recreation is Medicine	Internal session (not open to public)
LUNCH OVERLAP 11.45AM - 12.30PM	**LUNCH** 12-1	**LUNCH** 12-1	**LUNCH** 12-1
Workshop 2 **12pm-3pm** Introduction to 8 Aboriginal Ways of Learning and how this can transform the way you provide health services and programs. ****please note this workshop will start with a 30 minute lunch break to allow morning workshop delegates to join without missing lunch.**	**Workshop 3** **1pm-2pm** Adolescent Rural Cohort Study – ARCHER That's a Wrap **4pm – 5.30pm** Putting young people at the Centre of health care research and provision	**These workshops are at WPCC** **Workshop 5 -** **Arts Room - WPCC** **1pm-2.30pm** Virtual Art Snacks **Workshop 6** **Drama Room WPCC** **2.30pm-4pm** Listening to Voices	**Workshop 7** **1pm-4pm** Care Partnership – Diabetes, Collaborative Commissioning: Locally-driven design, implementation, and evaluation embedded in a state-wide initiative: how to make it work?

Western NSW Researcher of the Year Awards

Western Plains Cultural Centre, Wingewarra Street, Dubbo
5.30pm - 7.30pm Awards Event

Time	Topic	Presenters
5pm	WPCC Gallery open for delegates viewing prior to the awards commencement	
5.40pm	Commencement	MC Brinae Smith
	Aboriginal Dancers	Dubbo Aboriginal Lands Council
	Year in Review	Associate Professor Catherine Hawke WHRN Chair
	2022 Research Symposium Best Abstract awards in Emerging, General and Open categories	Associate Professor Georgina Luscombe Chair, WHRN Scientific Committee
	Western NSW Local Health District address	Mr Mark Spittal, Chief Executive, Western NSW Local Health District
	Clinical Research Leader of the Year presentation	**Nominees:** Dr Peter Fox Dr Sumitha Gounden Dr Ruth Jones Dr Shannon Nott
	Emerging Researcher of the Year presentation	**Nominees:** Danielle Allen Dr Kimberley Dean Cristen Fleming Catherine Osborne Dr Giti Haddadan Rod Hammond Stephen How Mrs Kristie Sweeney
	Aboriginal Health Researcher of the Year presentation	**Nominees:** Ms Lynette Bullen Professor Linda Deravin
	Presentation - Health Research Academic Leader of the Year	**Nominees:** Associate Professor Debra Jones Associate Professor Melissa Nott
7.15pm	Wrap up, special WHRN awards and acknowledgments	Catherine Hawke and Brinae Smith (MC)
7.30pm	Close	

Day 2 Programme

9.00 (5)	**Introduction**	Kate Smith MC
9.05 (10)	**Welcome to Country**	Aunty Marg Walker, Elder, Dubbo Aboriginal Lands Council
9.15 (5)	**Introduction to WHRN**	A/Prof Catherine Hawke, WHRN Co-Chair
9.20 (15)	**WHRN2022 Research Symposium Official Opening**	Bronnie Taylor, Minister for Women, Minister for Regional Health, and Minister for Mental Health Mark Spittal Western NSW Local Health District
9.35-9.55 (20)	**Keynote 1:** Regional Health Division	**Luke Sloane** Coordinator-General, Regional Health Division of NSW Health.
9.55-10.25 (30)	**Keynote 2:** You can't find this in any textbook.	**Kate Fiske & Tracey Parnell** Listening to Voices Project, Gateway Health *Sponsored by Three Rivers Department of Rural Health*
10.25-10.45 (20)	**Keynote 3:** Consumer Engagement and Co-design	Melissa Kang Specialty of General Practice, University of Sydney
10.45–11.15 (30)	*MORNING TEA*	*Includes poster viewing and voting*
11.15–12.30 (75)	**CONCURRENT SESSIONS**	See expanded programme below
12.30-1.30 (60)	*LUNCH*	Network with colleagues and students
1.30-1.50 (20)	**Keynote 4:** Aboriginal Health Safely Sleeping Aboriginal Babies in SA	Julian Grant, Associate Dean (Research) Charles Sturt Uni
1.50-2.05 (15)	Audience Participation	Arts OutWest
2.05-2.25 (20)	**Keynote 5:** Partnership Models RRR-CTEP Rural, Regional, and Remote Clinical Trial Enabling Program	**John Lawson**, Medical Director – Rural, Regional, and Remote Clinical Trial Enabling Program
2.25-3.00 (35)	**Panel Discussion:** What is the thread that ties research and policy together? **Convener:** Dr Shannon Nott WNSWLHD	**Panellists:** – Uncle Frank Doolan [Wiradjuri] Dubbo Elder – Andrew Coe (Western NSW Primary Health Network). – Donna Waters (Far Western NSW LHD & Broken Hill DRH) – Dr Liz Dale [Worimi woman] University of Wollongong
3.00-3.30 (30)	*AFTERNOON TEA*	*Includes poster viewing and voting*
3.30-4.45 (75)	**CONCURRENT SESSIONS**	See expanded programme below
4.45-5.05 (20)	**Keynote 6:** Therapeutic Recreation	Nicole Peel
5.05-5.15 (10)	**Symposium close and Awards for Best presentation (General, Emerging, Open) and Best poster**	**Kate Smith** (MC) A/Prof Georgina Luscombe (Chair WHRN Scientific Committee)

DAY 2 - TUESDAY 25th OCTOBER - CONCURRENT SESSION 1

First Nations Stream Macquarie Room 2			Chairperson – Patricia Canty	
	Timeslot	**Presenter**	**Abstract Title**	**Pg**
FN1	11:15-11:30	Ms Lynette Bullen	Beliefs of drug and alcohol clinicians when considering referral of Aboriginal clients to involuntary drug and alcohol treatment: A qualitative study	8
FN2	11:30-11:45	Dr Emma Webster	Swimming this river together: integration of Aboriginal pedagogy in mainstream healthcare	9
FN3	11:45-midday	A/Prof Veronica Matthews, Mrs Talah Laurie, Ms Kris Vine	CQI our way: working together respectfully and culturally to strengthen Aboriginal primary health care delivery	10
FN4	Midday-12:15	Prof Sarah Larkins, A/Prof Veronica Matthews, Mrs Talah Laurie	Working it Out Together! Aboriginal led co-design of strong and deadly health workforce models	11
FN5	12:15-12:30	Dr Holly Randell-Moon	Promoting critical race literacies for health professionals	12
Workforce Stream Macquarie Room 2			**Chairperson – Kerrie Noonan**	
	Timeslot	**Presenter**	**Abstract Title**	**Pg**
WF1	11:15-11:30	Dr Jessica Harris	Challenges and opportunities – findings from the Health Workforce Needs Assessment for rural NSW.	13
WF2	11:30-11:45	Mrs Sally Butler	Drivers of workforce location amongst nurses, midwives, and allied health professionals.	13
WF3	11:45-midday	Dr Giti Haddadan	The Strength of Cross-Sector Collaborations in Co-Designing an Extended Rural and Remote Nursing Placement Innovation	14
WF4	Midday-12:15	Dr Heather Russell	Rural social histories: evaluating an innovative teaching program	15
WF5	12:15-12:30	Ms Linda Cutler	Medical Workforce Data-degree of difficulty 10	16
Inequities / Geographic Variation Stream – Oxley Room			**Chairperson – Anne Field**	
	Timeslot	**Presenter**	**Abstract Title**	**Pg**
IGV1	11:15-11:30	Mr Tristan Bouckley	Towards identifying a framework to address health equity during implementation of health system reforms in NSW: A scoping review protocol and early findings	18
IGV2	11:30-11:45	Ms Josephine Canceri	Serious Toilet Talk – Rural General Practitioners perspectives on the National Bowel Cancer Screening Program	19
IGV3	11:45-midday	Mr Tyler White	Geographic and demographic variation of cardiovascular disease risk in western New South Wales	20
IGV4	Midday-12:15	Ms Jorja Armstrong	Mapping mental health: a hotspot analysis of the use of Western NSW Mental Health Emergency Care service 2013-2019	21
IGV5	12:15-12:30	A/Prof Georgina Luscombe	Reducing inequities in current models of rural ST-Elevation Myocardial Infarction (STEMI) care: evaluation of a Western NSW LHD Centralised Management System with Hot Transfer	21
Maternal and Child Stream – Theatre			**Chairperson – Tony Brown**	
	Timeslot	**Presenter**	**Abstract Title**	**Pg**
MC1	11:15-11:30	Ms Mariam Ebrahim	Anaemia in pregnancy at a NSW regional base hospital in 2020: a retrospective audit of screening and treatment compared to Australian guidelines.	23
MC2	11:30-11:45	Ms Anna Noonan	“She basically just sort of threw pamphlets at me for Canberra” A qualitative exploration of how women in Western NSW negotiate the rural health system for unintended pregnancy.	24
MC3	11:45-midday	Dr Kate Freire & Ms Kristen Andrews	Hearing the child’s voice in healthcare: a systematic review of participatory approaches	24
MC4	Midday-12:15	Mr Edward Yates	Describing paediatric eye injuries in Western NSW	25
MC5	12:15-12:30	Mr Rohan Gupta	Can health promotion programs improve the mental health of school-age children living in rural Australia? A narrative review	26

DAY 2 - TUESDAY 25th OCTOBER - CONCURRENT SESSION 2

First Nations Stream – Macquarie Room 1			Chairperson – Deborah Kenna	
	Timeslot	**Presenter**	**Abstract Title**	**Pg**
FN6	3.30-3.45	Ms Danielle Cameron	'Connecting our way': Improving the Mental Health of young Aboriginal and Torres Strait Islander children by connecting to culture	28
FN7	3.45-4.00	Mrs Tegan Dutton, Shona Kennedy, Kylie Lawless	Winanggaay Aboriginal pre-school program – happy and healthy children that are ready for school	30
FN8	4.00-4.15	A/Prof Veronica Matthews, Ms Kris Vine, Jessica Spencer	Healing Country: weaving knowledges for Aboriginal community-led climate change mitigation and adaptation planning	30
FN9	4.15-4.30	Mrs Tegan Dutton, Alison Amor	Winya Marang: the management and prevention of type 2 diabetes among Aboriginal families in Wellington, NSW	31
FN10	4.30-4:45	Ms Kerryann Stanley	Healing the Spirit Within	32
Health Services Stream – Macquarie Room 2			**Chairperson – Linda Cutler**	
	Timeslot	**Presenter**	**Abstract Title**	**Pg**
HS1	3.30-3.45	Dr Rebecca Venchiarutti	Cost savings to patients and the health system by providing specialist head and neck surgery outreach clinics in regional NSW	34
HS2	3.45-4.00	Ms Amelia Wagstaff & Sam Gersbach	Interweaving Antimicrobial Stewardship: a multidisciplinary team model of care improves optimal prescribing in rural and remote health care	35
HS3	4.00-4.15	Mr Adam Autore	Referral pathways for patients suffering Major Trauma in rural and remote NSW: a retrospective study comparing single and dual regional trauma service models	36
HS4	4.15-4.30	Mr Sharif Bagnulo	A One Health System approach: Working in partnership for better health outcomes through Care Partnership – Diabetes (CP-D) program planning in Western and Far West NSW	37
HS5	4.30-4:45	Dr Jessica Harris	Collaborative Care for Remote and Rural Communities (Documentary)	37
eHealth Stream - Oxley Room			**Chairperson – Meredith Makeham**	
	Timeslot	**Presenter**	**Abstract Title**	**Pg**
EH1	3.30-3.45	Ms Catherine Wang	Perceptions of Remote In-home Monitoring in Rural Women with Gestational Diabetes Mellitus	39
EH2	3.45-4.00	Dr Genevieve Johnsson	Telepractice in early childhood intervention: A family-centred approach	39
EH3	4.00-4.15	Ms Lyra Egan	eHealth interventions to improve diet, alcohol use, and smoking among rural adolescents: A systematic review.	40
EH4	4.15-4.30	A/Prof Georgina Luscombe, Dr Anna Thompson	Evaluation of the Western NSW LHD Virtual Rural Generalist Service as an effective, "COVID-19 resilient" model of care	41
EH5	4.30-4:45	Mr Rik Dawson	Physiotherapy telehealth to improve mobility and reduce falls in aged care (TOP UP): feasibility and emerging qualitative analysis	42
Mental Health Stream – Theatre			**Chairperson – Mel Nott**	
	Timeslot	**Presenter**	**Abstract Title**	**Pg**
MH1	3.30-3.45		Vacant	
MH2	3.45-4.00	Ms Anushka Dashputre	Crossroads II rural mental health	44
MH3	4.00-4.15	Ms Clare Sutton	The mental health, wellbeing and work impacts of COVID-19 on Community Health Nurses (CHNs) in regional NSW	45
MH4	4.15-4.30	A/Prof Peter Simmons	Rural small business owner management of their mental wellbeing during 2020	46
MH5	4.30-4:45	Dr Hazel Dalton	Locating a Good SPACE for suicide prevention: updating a rural training program with evidence and lived experience.	47

Posters		
Presenter	**Abstract Title**	**Pg**
Ms Julia Boyle	Pathways to care, prevention and early intervention for rural youth mental health and substance use	49
Mrs Charlotte Finlayson	Not Just Individual Experience but Collective Experience: Using an Arts-based Participatory-informed method in Researching Suicidal Distress in Rural/Remote NSW	50
Mr Thomas Groth	Analysis of interventions afforded to out-of-hospital Cardiac Arrest & Major Trauma patients in Rural NSW: Is there a case for upskilling rural paramedics?	50
Dr Brie Turner	Murray-Darling Medical Schools Network Research Collaboration – working together to grow our rural medical workforce.	51

FIRST NATIONS STREAM 1

Beliefs of drug and alcohol clinicians when considering referral of Aboriginal clients to involuntary drug and alcohol treatment A qualitative study

Lynette Bullen

Lynette is a Wiradjuri woman who recently completed a Health Education and Training Institute, Rural Research Capacity Building Program (NSW Health). Lynette is a Senior Drug and Alcohol Clinician at the Involuntary Drug and Alcohol Treatment Unit, Orange and has worked in the drug and alcohol field for nearly 30 years. She was recognised by the Australasian Professional Society on Alcohol and other Drugs (APSAD) with the Clinician Award in 2021.

1. Ms Lynette Bullen, Western NSW Local Health District, lynette.bullen@health.nsw.gov.au, Orange NSW 2800
2. A/Prof Kylie Lee, NHMRC Centre of Research Excellence in Indigenous Health and Alcohol, Faculty of Medicine and Health, The University of Sydney, kylie.lee@sydney.edu.au, Carlton VIC 3053
3. Dr Catherine Zheng, NHMRC Centre of Research Excellence in Indigenous Health and Alcohol, Faculty of Medicine and Health, The University of Sydney, catherine.zheng@sydney.edu.au, Camperdown NSW 2006
4. Prof Angela Dawson, Australian Centre for Public and Population Health Research, Faculty of Health, University of Technology Sydney, angela.dawson@uts.edu.au, Ultimo NSW 2007
5. Dr Alice Munro, Western NSW Local Health District, alice.munro@health.nsw.gov.au, Orange NSW 2800
6. Prof Kate Conigrave, NHMRC Centre of Research Excellence in Indigenous Health and Alcohol, Faculty of Medicine and Health, The University of Sydney, kate.conigrave@sydney.edu.au, Camperdown NSW 2006

BACKGROUND & AIMS Since 2012, the Involuntary Drug and Alcohol Treatment Unit (IDAT) in New South Wales has provided treatment and assessments in a secure facility for individuals experiencing severe dependence on alcohol and other drugs. This program provides safe medical withdrawal and comprehensive assessments. Alcohol-attributable hospitalisations for Aboriginal people in NSW have increased compared to their non-Aboriginal counterparts (between 2016-17). Yet at the same time, referrals to IDAT for Aboriginal people have decreased. This study set out to explore the beliefs of drug and alcohol clinicians when referring Aboriginal clients to IDAT in NSW.

METHODS IDAT is legislated by the NSW Drug and Alcohol treatment ACT 2007. There are two IDAT units in urban (Sydney, four beds) and regional (Orange, 8 beds). NSW Health drug and alcohol clinicians who had referred clients to IDAT between 2016-2018 were invited to participate in a semi-structured 11 interview. A qualitative study was conducted using content analysis, drawing on the constant comparison technique associated with Grounded Theory. This involved independent inductive category coding by two researchers (LB, CZ) to describe and tabulate data as per the study aims, alongside a simultaneous comparison of experiences across the transcripts.

RESULTS Two key themes summarised clinicians' beliefs when considering the referral of Aboriginal Australians to involuntary drug and alcohol treatment 1) Dilemma between saving someone's life and being culturally safe; and 2) Need for holistic wrap-around care.

CHALLENGES Involuntary drug and alcohol treatment for Aboriginal clients is a controversial topic, the challenge was to honour the voices of the participants in this study ensuring they were heard and respected during the process. Conclusions Almost all clinicians were worried that a referral to IDAT could further erode their client's autonomy and be retraumatising. Yet at the same time, a referral to IDAT for most interviewees was a 'last resort' to save someone's life. Strategies were suggested to improve the involvement of Aboriginal-specific services in IDAT and to ensure adequate local support options for clients on discharge. This study highlights the need for increased wrap-around services especially Aboriginal specific drug and alcohol support programs in rural and remote settings where limited services exist. As a result of this study, the NSW Ministry of Health are

creating an Aboriginal Health Impact Statement for IDAT to help improve treatment outcomes for Aboriginal clients accessing this service. Future research could examine effectiveness, acceptability and feasibility of involuntary drug and alcohol programs.

Swimming this river together integration of Aboriginal pedagogy in mainstream healthcare

Emma Webster

Dr Emma Webster is a Senior Lecturer in Rural Research with the University of Sydney, School of Rural Health. Dr Webster is recognised for her pragmatic and collaborative approach to research and her genuine desire to engage academia to serve community interests. In her work with Aboriginal people and communities, Dr Webster acknowledges Aboriginal values, ways of knowing and doing research. She has experience applying decolonising approaches to enhance participation of Aboriginal people in research design and conduct. She also has an interest in exploring bicultural models of care which give proper recognition to the value of Aboriginal cultural protocols and practices in healthcare.

1. *Emma Webster University of Sydney, School of Rural Health*
2. *Regina Osten Agency for Clinical Innovation*
3. *Cathy Kostovski (Yuin) Agency for Clinical Innovation*
4. *Billie Townsend (Gamilaroi) University of Sydney, School of Rural Health*
5. *Allan Hall (Yuwaallaraay/Gamilaroi) 8 Ways knowledge holder and community member*
6. *Yvonne Hill (Wiradjuri) 8 Ways knowledge holder and community member*
7. *Cecil See (Wiradjuri) 8 Ways knowledge holder and community member*
8. *Eunice Simons (Polynesian) Agency for Clinical Innovation*

BACKGROUND AND AIMS The 8 Aboriginal Ways of Learning (8 Ways) is an Aboriginal knowledge sharing framework. The Agency for Clinical Innovation (ACI) trained 34 staff members in 8 Ways, established a community of practice and introduced 8 Ways into programs and projects across the NSW Health system. It is important to understand the utility of this innovative approach to support cultural responsiveness and 'fit' of mainstream health services and policies to provide high quality healthcare to Aboriginal peoples. This study describes how 8 Ways were integrated into ACI work programs or projects and how staff members experienced implementing these changes.

METHODS We used a mixed methods approach and invited all ACI staff who undertook 8 Ways training to complete an electronic questionnaire and join a virtual focus group. Descriptive statistics were used to summarise quantitative data and framework analysis of qualitative data have been undertaken. An Aboriginal Research Governance Group provided guidance on the research.

RESULTS Analysis is currently underway. The questionnaire was completed by 13 staff (38% response rate). Most respondents were female (85%), non-Aboriginal (77%) and had undertaken formal cultural awareness training prior to learning about 8 Ways (85%). Participants used all 8 Ways on work projects, reporting they applied story sharing and deconstruct/reconstruct most often. Participants self-rated confidence in undertaking tasks related to culturally competent practice, reporting most confidence asking for Aboriginal cultural advice at work, collaborating with Aboriginal colleagues and asking Aboriginal colleagues for help to build connections with Aboriginal community members. Further advances in culturally competent practice can be made by developing connections with Aboriginal Elders and collaborating with Aboriginal communities. Staff had positive views of the 8 Ways framework and perceived this to be the beginning of a longer journey.

CHALLENGES State-wide approaches favoured by policy makers and local approaches and relationships favoured by Aboriginal communities create a challenging balance for provision of culturally safe services.

IMPLICATIONS or conclusion (take home message) 8 Ways proved a useful framework to structure learning through culture. Aboriginal employees were integral in supporting non-Aboriginal staff and therefore the organisation to improve culturally responsive practice. Whilst 8 Ways provides a strong foundation it should not

be applied universally without consideration of the diversity within and between Aboriginal communities. The 8 Ways framework presents opportunities for health policies and health services to ‘swim this river together' with Aboriginal peoples to achieve high quality and culturally responsive health services.

CQI our way working together respectfully and culturally to strengthen Aboriginal primary health care delivery (Open abstract)

Veronica Matthews, Talah Laurie, Kris Vine

1. A/Prof Veronica Matthews, University Centre for Rural Health on behalf of the LEAP project team. James Cook University, kristina.vine@sydney.edu.au, Townsville QLD 4810
2. Ms Talah Laurie, James Cook University, talah.laurie@jcu.edu.au, Lismore NSW 2480
3. Ms Kris Vine, James Cook University, kristina.vine@sydney.edu.au, Lismore NSW 2480

This study shows a way of working in research that honors First Nations peoples, through culturally respectful relationships, and sharing of new knowledge in innovative ways to make health research learnings more empowering, culturally appropriate and accessible to Aboriginal and Torres Strait Islander people.

Title CQI our way: working together respectfully and culturally to strengthen Aboriginal primary health care delivery

Background and Aims

The Leveraging Effective Ambulatory Practice (LEAP) Project is a research partnership between quality improvement networks and eight Aboriginal and Torres Strait Islander Primary Health Care (PHC) services in regional and remote Australia. This recently completed project undertook a strengths-based approach to explore the key implementation challenges for continuous quality improvement (CQI) for Aboriginal and Torres Strait Islander PHC services and how they contextually interact in complex systems, along with service-suggested strategies for improvement.

Methods

The project was conducted within the ‘LEAP Learning Community’, made up of eight self-selected Indigenous PHC services across QLD, NT and WA, along with key peak primary healthcare bodies (AMSANT and QAIHC) and local primary health networks (NTPHN, NQPHN, WQPHN and WAPHA). Throughout the life of the project, emphasis was placed on creating respectful relationships, building trust and encouraging connections. This importance of relationships also informed the ways of collecting information. Qualitative data was collated and disseminated in a variety of formats, diversifying engagement by taking into account local contextual factors such as clinic day workflows and preferred methods of communication. Data consisted of interviews with PHC services and community members (n=142), Learning Community meetings both online (n=37) and in person (n=2), as well as records of each PHC service quality improvement strategies. Data was inductively analysed in NVivo using a collaborative process.

Results

Findings from this project show both the complexity of CQI implementation challenges for services, and the innovations in overcoming some of these challenges. Overall, this study shows the importance of having the service embedded in local culture and *respect* being *central* to improving care quality. *“We use culture and balance with [non-Indigenous] ways to health”*. This cultural way of working to improve services included three interrelated aspects: accessible relevant data to show continuous improvements; two-way communicating with local community to drive improvements; and having a culturally responsive and stable workforce.

The project team will present findings through Indigenous-designed knowledge translation products aimed at increasing accessibility. One example is the ‘Respect is Central’ Yurrumpi (Honey Ant) Story – a story developed by a member of the project team Nalita Nungarrayi Turner, that has been created into a variety of videos: some as interview; some as animation; some for individual communities including options to be translated into traditional language. The ‘Yurrumpi’ (Honey Ant) Story and Framework, link here

Take home messages

This study shows a way of working in research that honors First Nations peoples, through culturally respectful relationships, and sharing of new knowledge in innovative ways to make health research learnings more empowering, culturally appropriate and accessible to Aboriginal and Torres Strait Islander people.

We acknowledge Aboriginal People and Torres Strait Islander People as the first inhabitants of the nation and acknowledge Traditional Custodians of the Australian lands where our staff and students live, learn and work.

Working it Out Together! Aboriginal led co-design of strong and deadly health workforce models

Veronica Matthews, Talah Laurie

1. A/Prof Veronica Matthews, University Centre for Rural Health, veronica.matthews@sydney.edu.au, Lismore NSW 2480
2. Prof Sarah Larkins, James Cook University, sarah.larkins@jcu.edu.au, Townsville QLD 4810
3. Ms Talah Laurie, James Cook University, talah.laurie@jcu.edu.au, Lismore NSW 2480 on behalf of the Working it out Together! Team, University Centre for Rural Health, Lismore NSW 2480

BACKGROUND & AIM High primary health care (PHC) workforce turnover (both Aboriginal and non-Indigenous staff) in remote and rural areas is problematic for communities and their health services. Turnover undermines relational trust, cultural security, and quality of care. While the economic and logistical costs of high workforce turnover are well described, there has been limited research into culturally safe models of care, relational costs of turnover and contextually informed strategies to improve workforce stability. Previous attempts to address rural and remote health workforce issues have fallen short, in part because they have not systematically incorporated Aboriginal perspectives. In a place-based approach, this project aims to address the question How can we build optimal community-led co-designed, sustainable strategies to address local workforce priorities?

METHODS We will use community-based participatory research to unite diverse, system-wide perspectives to

- understand strengths and weaknesses of local workforce systems;
- inclusively co-design workforce strategies to strengthen competency and stability;
- implement/adapt these strategies in four sites representing various rural/remote contexts (Western Qld, NT, Northern NSW, and Far North Qld);
- use Indigenous-led evaluation to measure population health outcomes, provider experiences, user experiences, and cost benefit. This project incorporates guidance from peak bodies (NAATSIHWP and CATSINaM) and other key stakeholders including the local Primary Health Networks, peak bodies and health departments.

EXPECTED OUTCOMES This five-year project has recently commenced (July 2022) and aims to deliver the following outcomes

- four detailed co-designed community health workforce plans with evidence of implementation and effectiveness;
- testing of feasibility and effectiveness of a community co-innovation process in remote and rural Indigenous settings;
- strong Indigenous centred process evaluation to understand the effectiveness of this co-design process and implementation of workforce strategies;
- quantitative evaluation of implementing local plans on workforce stability and turnover, cost, access to services and perceived quality of care.

Our first project partner meeting is scheduled late August where we will discuss workforce issues and best approaches to engage community and stakeholders in developing local workforce models. With permission from project partners, we will present outcomes from these early discussions.

IMPLICATIONS Building an appropriate health workforce that is stable, well-trained and culturally safe is crucial to delivering strong, high quality PHC services. This project aims to combine community-led place-based planning processes with engagement of policymakers and funders, enhancing the probability of success. Importantly, all of this work is done in a strong Indigenous-led partnership. The implementation processes developed are likely to be widely scalable.

Promoting critical race literacies for health professionals (Open abstract)

Holly Randell-Moon

1. Dr Holly Randell-Moon, School of Indigenous Australian Studies, Charles Sturt University, hrandell-moon@csu.edu.au, School of Indigenous Australian Studies, Charles Sturt University Dubbo NSW 2830

It is an increasing requirement for Australian health professions to engage broadly with culturally competent practice and delivery in response to entrenched health inequalities between Indigenous and non-Indigenous Australians. In a collaborative literature review, we have found hundreds of articles on cultural competency, cultural safety, and cultural responsivity (Lock et al., forthcoming). However these definitions lack coherency and can be confusing to health professionals. Moreover, cultural competency training and research can exclude an explicit focus on racism, anti-racism, and the history of racial science and the development of medical professions in Australia (Anderson, 2005; Bond & Singh, 2020). My research program focuses on the importance of supporting racial literacy in health professional practice amidst calls from First Nations to pay greater attention to the institutional and structural role of racism in healthcare, health promotion, and the collection and management of health data (Temple et al., 2019; Henry et al., 2004; McPhail et al., 2015; Bourke et al., 2019; Walter, 2016). Critical race theories have been increasingly applied to the health professions in the past two decades (Gatwiri et al., 2021; Rix et al., 2014). While newer university undergraduate and postgraduate health courses include critical race theory, there is a sizeable segment of the workforce that did not graduate with these literacies or who may wish to refresh their knowledge in these areas. Supporting racial literacy is a crucial step in mitigating deficit discourse on First Nations health and empowering health professionals to understand their history and relationship to Indigenous Country.

WORKFORCE STREAM

Challenges and opportunities - findings from the Health Workforce Needs Assessment for rural NSW. (Open abstract)

Jessica Harris

Jessica Harris is a city-trained scientist who moved to rural NSW ten years ago and has never looked back. She has a keen interest in rural health and a passion for health equity. As Research Officer at the NSW Rural Doctors Network, Jessica collates and analyses data and evidence to inform programs that support the health workforce in rural NSW.

1. Dr Jessica Harris, NSW Rural Doctors Network, jharris@nswrdn.com.au, Hamilton NSW 2303

BACKGROUND AND AIMS The NSW Rural Doctors Networks' (RDN) annual Health Workforce Needs Assessment (HWNA) presents data on issues impacting rural health professionals and the communities they serve. The assessment also sets priorities for action and identifies emerging trends worth considering when developing rural health workforce initiatives.

METHODS RDN's HWNA framework enables the capture of multidimensional workforce challenges within the priority areas of access, quality, and sustainability. RDN's needs assessment process involves situational analysis of health workforce needs against these criteria. This process enables the implementation of targeted workforce support strategies and assessment of the impact of these strategies. The report is informed by RDN's annual Rural GP Workforce and Rural Practice Manager Workforce Surveys, publicly available data, input from stakeholders and advisory groups and extensive work undertaken by RDN staff to distil, assess and synthesise on-the-ground intelligence. The data is analysed with reference to three priority areas of access to primary health services, health workforce capability and health workforce sustainability.

RESULTS Findings from the 2021-22 HWNA include * More allied health and nursing professionals are required in GP practices to increase deliberate team-based care. * Access to care could be improved with additional services, including mental health, oral health, drug and alcohol services and social support. * Practice managers, GPs and patients reported patient transport as a significant health service need. * New models of care, such as community paramedics and nurse-led clinics, should be considered to improve the sustainability of health care in rural areas.

CONCLUSION Despite the complexities of the challenges facing the rural health sector in NSW there are many innovative approaches being explored at the workforce and community levels. Purposeful patient-centred approaches that encourage team-based care arrangements may maximise the scope of practice of local clinical and non-clinical health professionals, improving workforce availability and efficient use of funding. The evidence contained in this report plays a critical role in designing RDN activities to improve sustained access to primary health care, especially in these times of natural disaster and emergencies. It's also a document designed to be used within the sector to inform program development and collaboration across NSW.

Drivers of workforce location amongst nurses, midwives, and allied health professionals.

Sally Butler

Sally is an early career biostatistician and research fellow with expertise in rural health workforce and care delivery. Sally has experience in public policy consulting and has conducted a broad range of evaluations to address complex health, social and educational issues. Recent work includes the evaluation of the Rural Health Multidisciplinary Training program. Sally has a thorough knowledge and understanding of the Australian health

system from prior experience as a registered nurse. Her clinical and policy evaluation experience combined with statistical training have provided her with the necessary skills and knowledge to make a valuable contribution to the rural health evidence base.

1. Mrs Sally Butler, School of Rural Medicine, Charles Sturt University, Orange, NSW, Australia
2. Dr Kris Battye, KBC Australia, Orange, NSW, Australia
3. Dr Cath Sefton, KBC Australia, Orange, NSW, Australia
4. Professor Janie Smith, Bond University, Gold Coast, QLD, Australia
5. Dr Joseph (Mark) Thomas, Centre for Health Economics Research and Evaluation, University of Technology Sydney, NSW, Australia
6. Dr Isabelle Skinner, Decision Support Analytics, VIC, Australia

BACKGROUND AND AIMS Strong evidence exists that the maldistribution of nursing and allied health workforces across regional and rural areas contributes inequitable access to health services. Currently there are no Australia wide studies capturing the combined workforce location drivers of nurses and both Aphra and non-Aphra accredited Allied Health disciplines. The aim of this study was to describe the drivers of work location across metropolitan, regional and rural locations amongst the Australian nursing and allied health workforces.

METHODS This study used existing data from the Health Career Pathways Survey, conducted in 2019 as part of the Rural Health Multidisciplinary (RHMT) program evaluation. Survey responses were collected from nurses, midwives and allied health professionals who graduated between 2005 and 2018 from an Australian University. Work location was categorised into metropolitan (MM1), regional, (MM2 & 3) and rural (MM4-7). Workforce drivers were coded into six themes. Multiple response questions were analysed on a case basis with a Bonferroni correction applied to account for respondent correlation.

RESULTS Of the 4,300 responses collected, approximately 62% (n=2,685) were valid. Half (n=1250) of the valid responses were from nurses. Compared to metropolitan health professionals, rural origin was strongly associated with working in a regional (RR 2.4, 95%CI 2.1-2.7) or rural (RR 3.7, 95%CI 3.1-4.5) location, as was the median number of rural placement weeks completed during university (regional +10 weeks, $p<0.001$; rural +8 weeks, $p<0.001$). Social and lifestyle drivers such as proximity to friends and family was the major driver for respondents in all locations and became more dominant as experience increased (Early career 80% vs Experienced 86%, $p=0.004$). Amongst rural workers, career advancement drivers were significantly lower (54% vs 63%, $p<0.001$), but the sense of community responsibility was significantly higher (38% vs 10%, $p<0.001$). Job acquisition (54% vs 22%, $p<0.001$), positive training experiences (23% vs 13%), $p<0.001$) and career advancement (64% vs 56%, $p=0.01$) drivers were significantly more influential for early career health professionals compared to experienced health professionals.

CONCLUSION Noticeable differences exist amongst the metropolitan, regional and rural nursing and allied health workforces. More insight into workforce drivers for nurses and allied health professionals by location will better inform health policies, strategies and resources aimed to increase the recruitment and retention of the regional and rural nursing and allied health workforces.

The Strength of Cross-Sector Collaborations in Co-Designing an Extended Rural and Remote Nursing Placement Innovation

Giti Haddadan

Dr. Giti Haddadan is a Research Associate at the Broken Hill University Department of Rural Health, University of Sydney. Giti is involved in co-designing and evaluating health service programs within Far West NSW, including the Extended Nursing Placement Program (ENPP) and the Primary Care Nurse in Schools Program. Her research employs multiple methods and adopts relevant frameworks and theories to capture the impact and influence of

implementing these programs. Giti is an advocate for rural and remote workforce development and research that improves the lives of those living and working in rural and remote communities.

1. Dr Giti Haddadan, Broken Hill University Department of Rural Health, giti.haddadan@health.nsw.gov.au, Broken Hill NSW 2880
2. A/Prof Sue Randall, University of Sydney, sue.randall@sydney.edu.au, Sydney NSW 2000
3. A/Prof Anna Williams, University of Western Sydney, anna.williams@westernsydney.edu.au, Sydney NSW 2751
4. Ms Danielle White, Broken Hill University Department of Rural Health, South West Academic Centre (SWAC) danielle.white@health.nsw.gov.au, Dareton VIC 2717
5. Ms Anne McArthur, University of Notre Dame, anne.mcarthur@nd.edu.au, Sydney NSW 2010
6. A/Prof Debra Jones, Broken Hill University Department of Rural Health, debra.jones1@health.nsw.gov.au, Broken Hill NSW 2880

AIM To describe the strength of a cross-sector and multi-university collaboration in co-designing an extended nursing placement innovation in rural and remote Australia.

BACKGROUND Registered nurses represent the largest health workforce in rural and remote Australia. However, current approaches to nurse education that focus on short duration hospital placements can 1) result in student churn through rural and remote communities; 2) limit student exposure to the real world complexities confronting communities; fail to impact student nurse consideration of rural practice uptake post-graduation, and; limit student exposure to rural and remote primary health care practice. Extended duration nursing placements have been recommended to address nursing workforce shortages; facilitate integration of student nurses into their host sites and communities to support student establishment of a sense of belonging within their practice teams and communities; provide students with the skills required to practice in these contexts and primary health care models. However, there are no guidelines governing the development of these placements and limited resources to support placement design, implementation and evaluation.

METHODS Methods adopted in program development included 1) collaboration establishment; 2) co-defining challenges confronting nurse education in these contexts; 3) co-developing guiding principles; 4) co-designing a new approach to nurse education, the Extended Nursing Placement Program (ENPP), and; 5) the co-contribution of stakeholders to program design, implementation and evaluation. Participants Regional stakeholders include a NSW and Victorian Local Health District/Service, three Aboriginal health services, and the Royal Flying Doctor Service of Australia. University participants include two metropolitan universities, a University Department of Rural Health, and final year Bachelor of Nursing students.

RESULTS Impacts of the co-design approach to date include establishment of a program governance group and research sub-group; successful delivery of Semester 1 pilot in 2022 and implementation of Semester 2 pilot; expansion of cross-sector stakeholders and university partners engaged in the program; program adaptation based on stakeholder feedback; initial data collection and preliminary analysis on findings; attraction of scholarship funds to support 2022 participants, and; planned expansion of the program into acute care in Semester 2 of 2023.

CONCLUSION The authors propose that the adoption of collaborative approaches can contribute to re-framing student nurse education and the development of a future-fit and rural-ready nursing workforce. These approaches can provide regions and universities with the opportunity to avoid student churn whilst promoting the attainment of skills required to work, live and thrive in these locations.

Rural social histories evaluating an innovative teaching program

Heather Russell

Heather is an academic GP at the School of Rural Health based in Orange. The School of Rural Health is a multi-professional academic unit which undertakes rural health research, builds rural research capacity and supports

medical students on extended rural placement. Heather has particular interests in medical education and the health of rural populations. Heather and a team of like-minded clinicians and educators have developed a teaching program designed to improve health and medical students' expertise in building social histories with rural patients.

1. Dr Heather Russell, The University of Sydney, heather.russell@sydney.edu.au, Orange NSW 2800
2. Dr Jayne Crew, The University of Sydney, jayne.crew@sydney.edu.au, Orange NSW 2800
3. Ms Lisa Hampshire, The University of Sydney, lisa.hamphire@sydney.edu.au, Orange NSW 2800
4. A/Prof Catherine Hawke, The University of Sydney, catherine.hawke@sydney.edu.au, Orange NSW 2800
5. Dr Alice Henschke, The University of Sydney, alice.henschke@sydney.edu.au, Orange NSW 2800
6. Prof Annette Burgess, The University of Sydney, annette.burgess@sydney.edu.au, Sydney NSW 2000

BACKGROUND People living in rural areas experience unique social determinants of health and poorer health outcomes. Undertaking a comprehensive social history can help clinicians to better understand and address factors influencing the health of rural people. Despite this, social history teaching is minimal in medical education and rural health is frequently taught exclusively at the population level. A blended learning module was developed to improve medical students' expertise in building social histories in rural contexts. Specifically, the program focused on enhancing students' knowledge of the social determinants of health and translating that knowledge to the individual care of rural patients.

METHODS Between January and May 2022, the teaching program was evaluated using a mixed methods approach. Year 3 and 4 students based at the School of Rural Health in Orange and volunteer patients involved in the program's delivery were invited to participate. A pre- and post-module questionnaire utilising a 7-point Likert scale to assess respondents' understanding and confidence was distributed to students via email. Students and volunteer patients were also invited to participate in focus groups following completion of the teaching program. An inductive thematic analysis was undertaken, and emergent themes identified.

RESULTS Ten students responded to both the pre- and post-module questionnaire (n=10/26; 38%). Respondents were most likely to be aged 20-29, male and have undertaken a science degree prior to medicine. Eleven students participated in two focus groups and two patients in a single focus group. Student respondents demonstrated improvement in their understanding and confidence in building social histories. There was also improvement in opportunities to practice social histories after undertaking the teaching program. Emergent themes from student focus groups highlighted a deeper understanding of the intersectionality of disadvantage and the role of the social history in individualising patient care. Both students and volunteer patients highlighted the benefits of allowing the patient narrative to develop naturally.

IMPLICATIONS Formal teaching in social histories improved the understanding and confidence of medical students based at a rural clinical school. A change in approach to social histories and a deeper understanding of the role of the social history was demonstrated by students participating in the program. The social histories learning module offers opportunities for interprofessional learning, can be applied in multiple rural settings and extended to postgraduate learning including hospital- and community-based medical, nursing and allied health practitioners.

Medical Workforce Data-degree of difficulty 10 (Open Abstract)

Linda Cutler

1. Ms Linda Cutler, Western NSW Regional Training Hub, University of Sydney, linda.cutler@sydney.edu.au, Dubbo NSW 2830

The Western NSW Regional Training Hub (the Hub) partnered with the Western NSW Local Health District (LHD) and invited the Western NSW Primary Health Network and NSW Rural Doctors Network to collaborate on a comprehensive medical workforce description and analysis. The Western NSW Medical Workforce Analysis took

over a year to complete with the data collection completed by the Hub with input and assistance from the LHD. The Workforce Analysis aimed to map the volume and distribution of medical professionals in the regions, highlight areas of mal-distribution or workforce shortage, and model the workforce moving into the future. To understand and communicate the nature of the workforce distribution across the region, the evaluation team and expert panel used an adjusted head-count measure to standardise the variability of workload to a full-time equivalent (FTE) pro rata. This data was mapped against similar data sets including the Australian medical workforce data and averages, NSW (total) medical workforce data and ratios, Rural NSW (excluding Metropolitan Sydney), and the Northern NSW region The Analysis identified the disciplines of priority shortage as well as disciplines with no workforce resident in the region. Workforce was distributed unevenly across the region with a centralisation towards Orange and Dubbo and away from remote sites, which is now mapped and quantified for the first time. There were a range of hurdles that needed to be overcome in gathering, collating, analysing and communicating the workforce data. This included the withholding of information due to privacy, difficulty collating accurate local data pertaining to Western NSW, and the nature of medical workforce in Western NSW, with many specialists providing care being non-resident and traveling from Sydney and other locations. In some instances, this information proved unattainable. The process was significantly impacted by the fact that the period for data collection coincided with the outset of the global pandemic (COVID 19). Like any paper and in-depth analysis, certain assumptions have been made in undertaking this work and there are limitations and caveats related to the data and analysis. This presentation will focus on the challenges, the limitations and caveats as well as assumptions made to produce the report which provides a sound foundation on which to build our collaborative work in improving medical workforce opportunities into the future.

Inequities / Geographic Variation Stream

Towards identifying a framework to address health equity during implementation of health system reforms in NSW A scoping review protocol and early findings

Tristan Bouckley

Tristan Bouckley – Research associate and PhD candidate - The George Institute (TGI) for Global Health and University of New South Wales.

Tristan is a health policy and systems focused researcher and PhD candidate at The George Institute. Previously, he worked in various senior policy advisory roles supporting the design and implementation of significant health system reforms, as well as several operational roles both in Australia and globally. Drawing on his diverse experience, Tristan aims to bring community, policy, and research together to enhance the design and implementation of health system reforms and services to support health equity and address disadvantages.

1. Mr Tristan Bouckley, The George Institute for Global Health at University of NSW, tbouckley@georgeinstitute.org.au, Sydney NSW 2048
2. Prof David Peiris, The George Institute for Global Health at University of NSW, dpeiris@georgeinstitute.org.au, Sydney NSW 2204
3. A/Prof Devaki Nambiar, The George Institute, dnambiar@georgeinstitute.org.au, Dehli NSW
4. Dr Gill Schierhout, The George Institute for Global Health at University of NSW, gschierhout@georgeinstitute.org.au, Sydney NSW 2064

BACKGROUND & AIMS Health equity and the reduction of disparities across geographies, ethnicities and socio-economic status for example, are commonly asserted goals of state health systems. However, there is limited understanding of how best to address equity promoting strategies as a part of large-scale system reform implementation. In recognition of this knowledge gap, we are conducting a scoping review to (1) identify methods and frameworks that explicitly address equity in the implementation of health system reforms and initiatives; (2) describe health system contexts in which methods and frameworks have been developed; and (3) assess their utility in improving health equity outcomes.

METHODS Using Arskey and O'Malley's scoping review methodology, we systematically searched the peer-reviewed literature from 2013-2022 for equity-focussed research on health system reform implementation. A comprehensive search strategy captured literature inclusive of four domains equity; implementation; health system; and theories, models and frameworks.

RESULTS or EXPECTED OUTCOMES The scoping review process identified 20,814 published articles. Following the removal of 9,815 duplicates, the team undertook a title and abstract screening process that identified 384 potentially relevant articles for full-text screening. On completion of the full-text screening process, we expect to capture methods that address health equity when introducing health system reforms and initiatives, such as governance, partnerships and stakeholder engagement approaches. The process aims to also recognise the context and delivery system in which the methods were developed, their approach, characteristics, impact, and where possible, the extent to which these methods are applied across the implementation life cycle.

CHALLENGES Given the limited literature in this space, and the unique place-based expectations and requirements, perspectives from health system users and service providers would support inform what elements are seen as important and should be considered within the rural NSW context. Other challenges include identifying approaches and opportunities to engage groups across rural NSW to further guide these perspectives.

IMPLICATIONS or TAKE-HOME MESSAGE This research aims to identify implications for enhancing health equity, including implications for health policy reform, planning, implementation, and evaluation at different

levels of the health system. These outcomes will aid identification of an appropriate framework that can support strengthen health system reform processes across New South Wales to promote health equity.

Serious Toilet Talk - Rural General Practitioners perspectives on the National Bowel Cancer Screening Program

Josephine Canceri

Josephine Canceri is a 4th year Medical Student at Western Sydney University and is currently studying at the Bathurst Rural Clinical School. With aspirations of pursuing a career as a Rural Generalist, Josephine decided to conduct an investigative project with a rural general practice focus. Her research has explored the experiences of rural GPs in preventative screening measures, with a particular interest in the National Bowel Cancer Screening Program utilising the iFOBT mail out kits. Given the poor participation in this screening program nation-wide, it is hoped that a greater insight of regional patient uptake, its positives and problems, may elucidate strategies to improve these statistics and thus address the substantial disease burden of bowel cancer in our rural communities.

1. Ms Josephine Canceri, Western Sydney University - School of Medicine (Bathurst Rural Clinical School), 18070095@student.westernsydney.edu.au, Bathurst NSW 2795
2. Dr Jannine Bailey, Western Sydney University - School of Medicine (Bathurst Rural Clinical School) jannine.bailey@westernsydney.edu.au, Bathurst NSW 2795
3. Ms Krista Reed, Western Sydney University - School of Medicine (Bathurst Rural Clinical School) k.cockrell@westernsydney.edu.au, Campbelltown NSW 2560

BACKGROUND Colorectal cancer (CRC) is the third most common cancer in Australia and the second leading cause of cancer death. With 90% of CRC being potentially preventable with early detection, optimal National Bowel Cancer Screening Program (NBCSP) participation is critical for mortality reduction and cost-effectiveness. Currently, participation is suboptimal, averaging at 44%, significantly below the 60-70% target. Participation is further reduced within Australian rural communities, exemplifying CRC disease burden and mortality with increasing rurality. Whilst numerous barriers limit patient participation, General Practitioner (GP) endorsement is found to be the most effective facilitator for enhancing NBCSP uptake. This project aimed to explored rural GP NBCSP experiences to elucidate circumstances unique to rural and regional communities which impact utilisation and access of preventative medicine resources.

METHODS Participants (n=10) were practicing GPs within Bathurst region with at least one year of regional clinical experience. Semi-structured interviews were conducted during 2021 until data saturation was attained. Interview questions were informed by a critical review of literature. Interviews explored GP experiences with the NBCSP and preventative screening within Western NSW; common patient perceptions and how these conversations were navigated; barriers and facilitators for patient participation and recommendations to improve NBCSP uptake. Interviews were audio recorded, transcribed verbatim and analysed using reflexive thematic analysis.

RESULTS GPs perceived that lack of public awareness and media promotion as well as limited health literacy, are crucial barriers in engaging eligible Australians to participate in the NBCSP. However, GPs also identified that discussing participation with their patients, its requirements and potential benefits, resulted in most patients subsequently utilising immunochemical faecal occult blood testing, either through the NBCSP or through privately purchased kits. Additionally, incorporating preventative screening discussion as part of regular 'check-up' appointments was found to normalise the topic and enhanced patient understanding of asymptomatic testing, increasing test uptake and follow-up following positive results. Furthermore, automated system reminders were identified as helpful for practitioners to ensure test completion.

CONCLUSIONS This study provided a more comprehensive understanding of the barriers and facilitators which impact regional patient NBCSP participation. Improved engagement of regional primary health care could allow for the development of specific strategies to better facilitate GP NBCSP endorsement within non-metropolitan areas. Fundamentally, this will improve patient care and reduce the CRC disease burden within our rural Australian communities, bridging the health gap still defined by postcode.

Geographic and demographic variation of cardiovascular disease risk in western New South Wales

Tyler White

My name is Tyler and I grew in South Australia before moving to Sydney in 2020 to study medicine. I am a third year medical student studying at the University of Sydney currently at Orange Health Service.

1. Mr Tyler White, University of Sydney, twhi7030@uni.sydney.edu.au, Orange NSW 2800
2. Dr Heather Russell, University of Sydney, Heather.russell@sydney.edu.au, Orange NSW 2800

BACKGROUND Cardiovascular disease (CVD) is a leading cause of morbidity and mortality in Australia. The western NSW primary health network (WNSWPHN) is one of the most disadvantaged areas nationally and has a crude CVD rate double the Sydney population. Despite this, only 1% of the National Health and Medical Research Council projects were rural highlighting a need for CVD prevention in rural areas. Absolute CVD risk calculations are primary prevention tools that stratify patient risk of developing CVD within the next five years using gender, age, blood pressure, serum lipids, diabetes, smoking status, and left ventricular hypertrophy. This calculation is then used to guide intervention. Given its proven benefits, widespread use of CVD calculators may address the high rates of CVD in the community. Yet, these tools remain underutilised.

METHODS A retrospective cohort design was used to categorise the demographic and geographic variation in CVD risk categories within WNSWPHN between April 2019 and November 2021.

RESULTS 15,808 patients were included in the study. Overall, there was a significant association between increasing age and receiving a CVD risk calculation ($p<.001$). Increasing remoteness ($p<.001$) and grouped Local Government Area (LGA) ($p=.017$) was significantly associated with a high CVD risk.

CHALLENGES LGA and remoteness categories were grouped to ensure confidentiality which means it is difficult to determine which areas in western NSW have a high/low CVD risk. Furthermore, it is unknown whether patients had a CVD risk assessment calculated in general practice or whether their pre-existing data was collected to formulate a CVD risk score without consultation. This has a potentially significant impact on patients receiving preventative care.

IMPLICATIONS The high proportion of patients with a CVD risk calculation (73%) exceeds the national average uptake rate (7%). This is at odds with the elevated rate of CVD risk in the western NSW population. A significant proportion of young patients were identified as high-risk which highlights the need for research in this age group and optimization of CVD screening for Indigenous people. It is also vital to associate these results with the introduction of the Heart Heath Check (Medicare Benefit Scheme items 699 and 177) to measure the impact of these checks. Finally, further research is needed to consider more variables within western NSW and to explore whether patients are being appropriately managed to their risk level by determining whether appropriate management is undertaken in response to calculated CVD risk.

Mapping mental health a hotspot analysis of the use of Western NSW Mental Health Emergency Care service 2013-2019

Jorja Armstrong

Jorja Armstrong is a third year Medical Student at the School of Rural Health, Dubbo Campus, at the University of Sydney. She has found the rural placement to be rewarding and anticipates to continue working rurally after graduation. Prior to her current studies, she completed a Bachelor of Science (Pharmacology)/Bachelor of Arts (Linguistics), and a Diploma of Languages (Polish).

1. Ms Jorja Armstrong, School of Rural Health, University of Sydney, Jarm9317@uni.Sydney.edu.au, Dubbo NSW 2830
2. A/Prof Georgina Luscombe, School of Rural Health, University of Sydney, georgina.luscombe@sydney.edu.au, Orange NSW 2800
3. Heather Gant, The Peregrine Centre, heather.gant@theperegrinecentre.com.au, Orange NSW 2800
4. Mr Jeffrey Bull, WNSWLHD, jeffrey.bull@health.nsw.gov.au, Orange NSW 2800

BACKGROUND & AIM The Western NSW (WNSW) Mental Health Emergency Care (MHEC) service provides telepsychiatry services for clinicians and individuals in the WNSW area. Anecdotal evidence from clinicians has suggested there have been locations of increased service usage in recent years. Investigation of service use by location is useful to inform future mental health service planning, particularly in rural areas where access to mental health services is challenging by workforce and distance constraints. This project aimed to identify if there are any geographic hotspots of increased service usage of the WNSW MHEC service from 2013-2019, and to explore if there were any changes to hotspots throughout the study period.

METHODS Routinely collected clinical data on MHEC service usage from 2013-2019 was analysed. The number of service contacts per location was normalised for population and calculated as a rate per 100,000. An Optimized Hot Spot Analysis was run in ArcGIS Pro on three separate time periods (combined financial years 2013/14 to 2014/15, 2015/16 to 2016/17, and 2017/18 to 2018/19) to identify areas of increased service usage, and explore any change over time.

RESULTS A hotspot was identified in the north-eastern corner of the service area (centred around Lightning Ridge) which persisted throughout the whole study period. An additional hotspot was found to emerge in the final time period in central-eastern Far West NSW Local Health District (centred around Wilcannia). Take-home message Two hotspots of MHEC service usage were identified. Further studies into the underlying characteristics of users from these areas may shed light on the driving forces of increased usage.

Reducing inequities in current models of rural ST-Elevation Myocardial Infarction (STEMI) care evaluation of a Western NSW LHD Centralised Management System with Hot Transfer

Georgina Luscombe

Georgina Luscombe is Associate Professor of Rural Health at The University of Sydney School of Rural Health. Her research supports the rural health research agenda, with a focus on innovative rural service delivery models, rural health workforce development and health issues directly impacting rural populations. Working in collaboration with the Western NSW Local Health District, her research and evaluation work aims to improve health services and public health policy and practice.

1. Dr Ruth Arnold, WNSWLHD, ruth@coldhearts.com.au, Orange NSW 2800
2. A/Prof Georgina Luscombe, University of Sydney School Rural Health, georgina.luscombe@sydney.edu.au, Orange NSW 2800
3. Mr Stephen Faddy, NSW Ambulance, Steven.Faddy@health.nsw.gov.au, Sydney NSW 2039
4. Dr Sarah Edwards, NSW Ambulance, sarah.edwards1@health.nsw.gov.au, Sydney NSW 2039
5. Ms Gabrielle Larnach, WNSWLHD, Gabrielle.Larnach@health.nsw.gov.au, Orange NSW 2800

6. Ms Estelle Ryan, WNSWLHD, Estelle.Ryan@health.nsw.gov.au, Orange NSW 2800

BACKGROUND & AIMS ST-Elevation Myocardial Infarction (STEMI) is a type of heart attack that is a time critical emergency requiring urgent restoration of blood flow (revascularisation) with lysis (clot dissolving therapy) or percutaneous coronary intervention (PCI). Guidelines recommend immediate transfer of all lysis patients to a PCI-capable hospital, to allow timely access to emergency PCI for patients who fail to reperfuse with lysis. Rural patients with a STEMI experience delayed access to definitive care, and consequently, inferior outcomes compared to metropolitan Australians. In NSW these inequities include 14% increased mortality and lower rates of definitive revascularisation in rural populations (15% vs 36%). Currently in Western NSW the Orange Health Service (OHS) is the only PCI-capable hospital. This study examined whether implementation of a centralised management system (CMS) with routine immediate transfer to this PCI centre improved timeliness of treatment for rural patients with STEMI.

METHODS The study used a quasi-experimental design, investigating STEMI patients treated in Western NSW LHD between January 2014 to December 2015 (prior to CMS implementation) and May 2019 to April 2021 (during implementation). Existing pre-hospital and in-hospital thrombolysis programs were combined with a centralised 'hot transfer' strategy for patients experiencing STEMI 90 minutes or further from the PCI centre in 'medium' and 'long' distance Ambulance transfer regions.

RESULTS Of 622 patients, outcomes were recorded for 274 patients presenting before, and 348 after, CMS implementation. Seventeen percent of patients were transferred from a medium transfer zone (90 to under 120 minutes from the PCI hospital) and 31% (191) from a long transfer zone (further than 120 minutes) to OHS. There were significant reductions in time to the PCI centre for those in medium (288 to 243 minutes, $P<0.05$) and long (344 to 296 minutes, $P<0.01$) regions and, as anticipated, no change for those in the 'shorter' transfer region. Median time to thrombolysis improved in the long transfer region (from 108 minutes pre-implementation to 97 minutes during CMS implementation; $P<0.05$). Angiography within 24 hours improved in medium (77% to 91%, $P<0.05$), and long transfer regions (58% to 77%, $P<0.01$).

CONCLUSION A rural STEMI CMS with immediate transfer can deliver patients from a vast geographical area directly to a rural PCI centre. Patients furthest away, with the greatest risk profile, benefit the most. Extension of this program, with development of 24/7 PCI services in existing rural cardiac hubs, stands to reduce disparities in rural Australian STEMI outcomes.

Maternal and Child Stream

Anaemia in pregnancy at a NSW regional base hospital in 2020 a retrospective audit of screening and treatment compared to Australian guidelines.

Mariam Ebrahim

Mariam is a 4th year medical student from Western Sydney University. Originally from Sydney, she is currently undergoing a 12 month placement in Bathurst Base Hospital and its associated clinics. Mariam has a passion for Obstetrics and Gynaecology and as such hopes to pursue a career in it in the future. She is currently embarking on research in relation to maternity care in the rural setting.

1. Ms Mariam Ebrahim, Western Sydney University, 19891428@student.westernsydney.edu.au, Bathurst NSW 2795
2. Mrs Jannine Bailey, Western Sydney University, Jannine.Bailey@westernsydney.edu.au, Bathurst NSW 2795
3. Ms Tegan Dutton, Western Sydney University, Tegan.Dutton@westernsydney.edu.au, Bathurst NSW 2795
4. Ms Krista Cockrell, Western Sydney University, k.cockrell@westernsydney.edu.au, Campbelltown NSW 2560

BACKGROUND Anaemia in pregnancy is a significant health issue, with untreated anaemia increasing the risk of still births, perinatal death and maternal death. In Australia, approximately 17% of non-pregnant women of reproductive age have anaemia, increasing to a rate of 25% in pregnant women. These rates increase with rurality. A recent study in a remote Northern Territory Aboriginal community found that 50% of pregnant Aboriginal women had iron deficiency anaemia. Despite these high rates, rural studies of anaemia prevalence, screening and treatment in pregnancy are rare. This research aims to explore clinician adherence to current national Red Cross maternity guidelines regarding anaemia screening and treatment protocols and the clinical decision-making underpinning treatment decisions.

METHODS A retrospective clinical data audit on screening for and treatment of anaemia in pregnancy (including post-partum <48hrs) is being conducted at the Bathurst Base Hospital (BBH) maternity unit. Participants (approximately 200) include women who gave birth at BBH from 01/01/2020 to 30/06/2020. Data was collected from the BBH electronic medical records and maternity paper-based notes. Data recorded in an excel spreadsheet included risk factors for anaemia, antenatal bloods, potential iron supplements and compliance, delivery complications, and follow up bloods. Descriptive statistics and analysis will be completed and compared against Red Cross Guidelines, assessing concordance.

RESULTS and EXPECTED OUTCOMES Data collection and analysis is ongoing. Preliminary data analysis has shown high rates of below baseline ferritin levels, in comparison to Haemoglobin levels which appear regularly within normal baselines. There also appears to be high rates of IV iron infusion administration, despite it being a last resort intervention in guidelines. Analysis over the coming months will provide an understanding of the prevalence of anaemia in pregnancy for women presenting at the BBH. This project will report the prevalence of anaemia in pregnancy in this regional hospital and alignment of treatments and follow-up with national guidelines.

CHALLENGES Comparison of practice with guidelines is sometimes complicated by data that is unavailable due to missing or incomplete data, including data not communicated between the maternity unit and clinicians outside of the hospital (e.g., General Practitioners).

IMPLICATIONS and take-home messages Understanding whether patients are receiving screening and treatment as per the national guidelines is the first step in ensuring best practice care. The project shows promise in identifying features of practices and processes that support adherence to guidelines.

"She basically just sort of threw pamphlets at me for Canberra" A qualitative exploration of how women in Western NSW negotiate the rural health system for unintended pregnancy.

Anna Noonan

1. Ms Anna Noonan, The University of Sydney, anna.noonan@sydney.edu.au, Orange NSW 2800
2. A/Prof Georgina Luscombe, The University of Sydney, georgina.luscombe@sydney.edu.au, School of Rural Health NSW 2800
3. Professor Kirsten Black, The University of Sydney, kirsten.black@sydney.edu.au, Faculty of Medicine and Health NSW 2006
4. Professor Jane Tomnay, The University of Melbourne, jtomnay@unimelb.edu.au, Centre for Rural Sexual Health Victoria 3630

BACKGROUND AND AIMS As rural women across Australia are more likely to experience unintended pregnancy, it is important to understand how women are currently managing these pregnancies in a context of scarce reproductive health services. It is equally as important to gauge rural women's expectations of and satisfaction with the care they receive to identify what improvements should be made to better support them now and into the future.

METHOD Data were collected through semi structured interviews with rural NSW women who had recently experienced an unintended pregnancy to explore the impact of rurality on their overall experience with a focus on health service accessibility. Interviews were audio-recorded and transcribed verbatim. Data from the interviews have been analysed for themes using the Framework Method of thematic analysis.

RESULTS Twenty women participated in the study, recruited through three waves of social media and snowballing strategies. Half the participants (n=10) sought an abortion for their unintended pregnancy. Once a decision about the pregnancy was reached, the experiences of this subset of participants diverged from those who continued their pregnancy. The major theme among this subset was first and foremost the difficulties in finding where abortion services might be available in a rural context and how to reach them. The requirement for these women to navigate a fragmented and opaque health service pathway, often with limited provider options, unnecessarily exacerbated an already time-critical and significant life event for many.

TAKE-HOME MESSAGE This study offers a unique perspective on when and how rurality affects women's experiences of unintended pregnancy ending in abortion. Obtaining an abortion for women in rural NSW was fraught with additional barriers to access including a lack of transparent pathways and local services.

Hearing the child's voice in healthcare a systematic review of participatory approaches

Kate Freire & Kristen Andrews

Kate is a Research Fellow at the Three Rivers Department of Rural Health, Charles Sturt University, and a regionally based physiotherapist. Her major research interests include rural health and wellbeing with a focus on collaborative, participatory research. Kate's PhD investigated the physical activity partnership between children and parents.

Kristen is a physiotherapy academic and physiotherapy discipline lead at Charles Sturt University. She has a keen interest in child health and has clinical expertise in the areas of cardiorespiratory and paediatric physiotherapy practice. Kristen completed a Master of Philosophy researching the parental experience of physiotherapy in cystic fibrosis during infancy.

1. Dr Kate Freire, Three Rivers Department of Rural Health Charles Sturt University, kfreire@csu.edu.au, Albury NSW 2640
2. Ms Kristen Andrews, Charles Sturt University, krandrews@csu.edu.au, Albury NSW 2640

3. Prof Rod Pope, Charles Sturt University, rpope@csu.edu.au, Albury NSW 2640
4. Ms Kate Jeffrey, Royal Far West, katej@royalfarwest.org.au, Manly NSW 2095
5. A/Prof Melissa Nott, Three Rivers Department of Rural Health, Charles Sturt University, mnott@csu.edu.au, Albury NSW 2640
6. Ms Tricia Bowman, Charles Sturt University, tbowman@csu.edu.au, Albury, NSW 2640

BACKGROUND AND AIMS In preparation for a project that aims to engage rural families as co-researchers in the development of health resources targeted at both children and parents (or carers), we reviewed what participatory methods and approaches have been used with these populations. There is a growing expectation in healthcare that end-users are included in the co-creation of health resources and interventions but there are few critical reviews that provide evidence-based guidance on the best ways to engage in participatory approaches with families, especially children. This review aimed to help address this gap.

METHODS A systematic search of key databases was conducted using key words and subject headings. Peer reviewed studies were included based upon meeting eligibility criteria. Assessments of methodological quality and sufficiency of reporting of the participatory approach were conducted. A critical narrative approach was used to synthesise findings.

RESULTS Out of 26 eligible studies, only one was from an Australian context. This Australian study described the co-design of an obesity community prevention program for MÄori and Pacific Islander families based in a metropolitan area. Co-researchers on this project included parents, cultural advisors, health professionals and multidisciplinary researchers, but not children. Most of the other eligible studies were of low to moderate methodological quality and no correlation between methodological quality and sufficiency of reporting was found. Twenty-three (88%) of the studies involved children or adolescents as co-researchers (age range 3 to 17 years). A wide variety of methods and activities were utilised in the studies. Practical findings about the conduct of participatory research with children will be presented, including the frameworks utilised, the multiple activities co-researchers engaged with as part of the participatory process, and how co-researchers engaged in shared decision making.

CONCLUSION It is now over thirty years since the release of the United Nations Convention on the Rights of the Child, which resulted in an increased awareness of the importance of hearing from children on issues that affect them. This review found no peer-reviewed papers on the development of health resources which included the child's voice from the Australian context. Involving children, and their families, in participatory approaches in healthcare may result in more acceptable, targeted, and sustainable resources and interventions for them. This presentation has shared practical insights into conducting participatory approaches with children as co-researchers to inform and enable clinicians and researchers to achieve greater engagement with children and their families.

Describing paediatric eye injuries in Western NSW

Edward Yates

I completed a Bachelor of Science with Honours Class I at the University of Newcastle in biological science and chemistry with specific interest in reproductive biology and physical chemistry. I am currently a senior medical student at the University of Sydney, completing a 1-year placement with the Orange Health Service. I have an interest in rural health, trauma, paediatrics, and ophthalmology.

1. Mr Edward Yates, School of Rural Health, edzyates@gmail.com, Orange NSW 2800

BACKGROUND The variety and severity of acute eye injury increases proportionally with remoteness. The shortage of, and isolation from specialist medical services in rural areas such as ophthalmology and optometry have historically only added to the severity and use of EDs. Ocular trauma disproportionately affects children as they lack visual maturity and dexterity. The significance being, an uncorrected, injured and immature eye can have lifelong impacts such as cortical atrophy (amblyopia). Often, these paediatric injuries have worse outcomes as children have increased years of visual loss and visual immaturity. Purpose A descriptive analysis and characterization of children (< 18 years) presenting with eye injury to the rural emergency departments of Western NSW.

METHODS This was a retrospective audit of triage codes, presenting complaints and ICD-10-AM coding for all paediatric patients presenting to the Orange Health Service and Dubbo Base Hospital from August 2017-December 2021. 257 paediatric ocular injury cases were assessed and cleaned manually using electronic medical records.

RESULTS Paediatric ophthalmic presentations averaged 57 per year. There was a disproportionate and significant frequency of children 0-4 years (26%) and 15â€“17-year old's (29%) presenting. Children 0-4 years were most likely to be injured at home (39%) and children aged 15-17 years in work environments (79%). Children 15-17 years were most likely to be injured doing a form of manufacturing (metal or woodwork) and most often presented high-risk mechanisms of injury.

CHALLENGES future work would involve collecting visual acuity outcomes from injuries from external sources such as private consultants' rooms and optometrists. Patients presenting from hospitals outside of OHS and DBH that were not referred to these centres are not included in this. Therefor remote populations may be underrepresented. Conclusions This report has identified many preventable eye injuries occurring in older adolescent males occurring in industry and farming. This is clinically important as majority of the injuries identified are high-risk for long-term visual deficit and blindness due to perforation and corneal scarring.

Can health promotion programs improve the mental health of school-age children living in rural Australia? A narrative review

Rohan Gupta

Rohan is a Third Year Postgraduate Medical Student at the University of Sydney, Australia. His current interests include mental health and neuroscience. When he is not studying, he enjoys playing tennis, reading, and sketching.

1. Mr Rohan Gupta, School or Rural Health (Orange), rgup2791@uni.sydney.edu.au, Orange NSW 2800

BACKGROUND AND AIMS School-age children living in rural Australia are vulnerable to poor mental health. Primary prevention programs which target young children may prevent the onset of mental disorders. Health promotion programs may minimise existing health and socioeconomic inequities amongst rural populations by improving mental wellbeing. **AIM** This narrative review aims to investigate whether health promotion programs can improve mental health outcomes in school-age children (5 to <12 yrs) living in rural Australia.

METHODS Medline, PsycINFO and ERIC databases were searched, and additional studies identified from reference lists and Google Scholar. Studies were included if they reported systematic reviews or RCTs evaluating primary prevention programs reducing symptoms/development of conduct, depression, and anxiety disorders and/or improving protective factors for mental wellbeing. A single reviewer screened the articles, extracted the data, and critically appraised the studies using Centre of Evidence Based Medicine tools.

RESULTS A total of 21 studies were included (15 systematic reviews and six RCTs). Interventions were sorted into five categories psychological, social-emotional learning, parenting, physical activity and mindfulness. Interventions in rural populations were effective with tailored program features and a place-based approach

involving cross-sectoral support. Teacher-delivered social-emotional learning programs and self-directed parenting programs were shown to be effective in improving social, behavioural, and emotional outcomes.

IMPLICATIONS Social-emotional learning and parenting programs may improve mental health outcomes but limited published evidence evaluating the effectiveness of such programs in a rural context was found. Future studies should include community co-design to ensure the translation of programs to rural populations is appropriate.

First Nations Stream 2

'Connecting our way' Improving the Mental Health of young Aboriginal and Torres Strait Islander children by connecting to culture (Open Abstract)

Danielle Cameron

Danielle Cameron is a Yuibera woman, who was born and raised on Turrbal Country in Meeanjin (Brisbane), and now lives in Widjabul Wia-bul lands in Lismore. Danielle has over 20 years' experience in working within community, health and education sectors with numerous roles including Social and Emotional Wellbeing Co-ordinator, Case Worker, Child Counsellor, Primary School Teacher, Senior Workforce Development for the Mental Health Commission and Director of her own company. Danielle has a drive and passion for utilising mixed contemporary delivery methods intrinsically entwined in First Nation practices to enhance SEWB, community engagement and trauma awareness to have better outcomes for vulnerable populations. She now works as a Research Associate with the Centre for Research Excellence in Strengthening Systems for Indigenous Health Care Equity (CRE-STRIDE) at the University Centre for Rural Health, University of Sydney.

1. Ms Danielle Cameron (Yuibera) University Centre for Rural Health, University of Sydney, danielle.cameron@sydney.edu.au, Lismore NSW 2480
2. Dr Alison Laycock, University Centre for Rural Health, University of Sydney, alison.laycock@sydney.edu.au, Adelaide SA 5066
3. A/Prof Michelle Dickson (Darkinjung/Ngarigu), Sydney School of Public Health, University of Sydney, michelle.dickson@sydney.edu.au, Sydney NSW 2006
4. Ms Candace Angelo (Yuin), Faculty of Medicine and Health, University of Sydney, candace.angelo@sydney.edu.au, Sydney NSW 2006
5. A/Prof Caroline Atkinson, University of Melbourne, Indigenous Health, caroline.atkinson@wealli.com.au
6. Dr Vicki-Lea Saunders (Gunggari), Central Queensland University, Jawun Research Centre, v.saunders@cqu.edu.au, Townsville QLD 4810

We'd like to yarn with the audience about an Aboriginal-led, strengths-based project to improve the wellbeing of Indigenous children (aged 5 to 12 years) in rural NSW through connecting with culture and identity. An audio-visual presentation will tell the background story and spark a conversation about how we might fund the project and take it forward.

METHODS: This will be a five-year project (commencing July 2023) Aboriginal led, and during each stage of the project it will be overseen by Elders and cultural experts, driven by young persons needs and priorities and facilitated by Aboriginal community workers, youth workers or clinical staff, utilising traditional Knowledges (qualitative) and quantitative data (screen tools) and other indigenous led methodologies ie: photo yarning.

EXPECTED OUTCOMES: Creating a place-based program that can support the SEWB of young Indigenous young people by enhancing access to cultural activities that increase a sense of self and cultural identification. Throughout this project we will be looking at validating a framework that intertwines Indigenous ways of healing and being with westernised theories. It also pushes the boundaries within research as having a committed team to be part of each part of the program creation and implementation. This project will be conducted within a framework that upholds Indigenous Cultural and Intellectual Property rights and is consistent with the principles of Indigenous Data Sovereignty.

'Connecting our way': Improving the Mental Health of young Aboriginal and Torres Strait Islander children by connecting to culture

Maintaining connections to family, culture and community is essential for strengthening Aboriginal and Torres Strait Islander children's mental health and emotional and social wellbeing through to adulthood.

We'd like to yarn with the audience about an Aboriginal-led project to improve the wellbeing of Indigenous children in rural NSW through connecting with culture and identity.

An audio-visual presentation will tell the background story and spark a conversation about how we might fund the project and take it forward.

Our project idea

We aim to redevelop, pilot and evaluate a culturally sensitive program that improves the wellbeing of Indigenous children (aged 5 to 12 years) through connecting with culture and identity. The *Connecting our Way* group program will build confidence of children in emotional regulation, mindfulness, and managing emotions at high-risk times, teaching children how to deescalate, sooth and respond appropriately.

Our program will ultimately create a culturally infused sense of belonging that enhances children's mental health and wellbeing, while supporting and nurturing their identity and sense of self.

Study design and methods

We will use Indigenous ways of Knowing, Being and Doing to re-develop, deliver, and evaluate *Connecting our Way*, originally designed by Women's Health and Family Services in Western Australia WA in 2019 by Danielle Cameron. Co-design will be used engaging two pilot sites (including rural NSW) in codeveloping program elements to suit each location's cultural needs.

An Indigenous methodology will use culturally familiar methods, such as Yarning Circles, to gather data and establish a co-design approach with our pilot sites. A developmental evaluation will capture the process and outcomes of delivering the program with four cohorts in the two sites, while addressing complexities in real-time. The project will provide opportunities for mentoring, strengthening the capacity of Indigenous early career researchers and program facilitators.

Interweaving the program and rural health policy

The National Children's Mental Health and Wellbeing Strategy calls for child-centred, strengths-based services that are culturally responsive and treat children in the context of families and communities. It recognises the large gap in mental health services in rural and remote locations.

When funded and implemented, our project will be an Aboriginal-led, strengths-based early intervention program to support children's mental health. It seeks to adapt the original program for local settings and to address a gap in culturally infused mental health interventions for Indigenous children living in rural communities.

(Thanks to original program participants for sharing their painting 'Connecting 2 Culture')

Winanggaay Aboriginal pre-school program - happy and healthy children that are ready for school

Tegan Dutton

1. Mrs Tegan Dutton, Western Sydney University, tegan.dutton@westernsydney.edu.au, Bathurst NSW 2795
2. Ms Shona Kennedy, Marathon Health and Western Sydney University, shona.kennedy@hotmail.com.au, Bathurst NSW 2795
3. Kylie Lawless

BACKGROUND Early identification of developmental needs can be positively lifechanging. Aboriginal and Torres Strait Islander children are twice as likely to be developmentally vulnerable than non-Indigenous children. The Winanggaay Program is a partnership between Marathon Health and Bathurst Towri MACS and seeks to provide Aboriginal pre-school aged children with access to developmental screening and relevant health services to ensure they are healthy and have the right learning and development supports in place before commencing school. This includes (but is not limited to) speech and hearing assessments, dental check-ups, and referrals to GPs and paediatricians. An Aboriginal Health Linker works with pre-school staff and families to proactively identify and action any supports that are needed. Researchers from Western Sydney University, Bathurst Rural Clinical School are evaluating the program.

METHODS The multidimensional evaluation will include a description of program implementation and service activity data (such as number screening opportunities provided), as well as a description of identified health needs and referrals made. Parent/carer feedback will be collected via pre and post questionnaires administered by the Aboriginal Health Linker and a yarning group, run by the Aboriginal lead researcher. WSU researchers will conduct interviews/focus groups with Winanggaay staff and relevant stakeholders to explore their experiences, what has worked well, and what can be improved. Thematic analysis will be performed to identify key themes from the qualitative data.

EXPECTED OUTCOMES The evaluation will present how the Winanggaay program has identified and supported pre-school aged children to access the developmental support they need prior to beginning school. It is expected the evaluation will provide a clear understanding of the level and type of health and developmental services needed for pre-school aged Aboriginal kids in a regional setting, how the program has coordinated access to services (such as visiting speech pathology), and also identify barriers to access. The acceptability of program activities to parents, stakeholders and community will be presented.

CHALLENGES COVID-19 resulted in a decrease in children attending Towri MACS. The program was extended to West Bathurst Pre-school which has a high proportion of Aboriginal children attend.

IMPLICATIONS The Winanggaay Aboriginal pre-school program pilots provision of supports prior to school that aim to ensure Aboriginal children don't fall behind. Ultimately the model will be dependent on access to allied health professionals and paediatricians, which is an ongoing issue in regional and rural NSW.

Healing Country weaving knowledges for Aboriginal community-led climate change mitigation and adaptation planning

Veronica Matthews, Kris Vine, Jessica Spencer

1. A/Prof Veronica Matthews, University Centre for Rural Health, veronica.matthews@sydney.edu.au, Lismore NSW 2480
2. Ms Kris Vine, University Centre for Rural Health, kristina.vine@sydney.edu.au, Lismore NSW 2480 on behalf of the Healing Country project team, University Centre for Rural Health

Aboriginal and Torres Strait Islander communities are at the forefront of human induced changes to climate, already experiencing negative impacts on their health, energy, food and water security. This is compromising communities' healthy connection to culture and Country that are fundamental determinants of health and

wellbeing. There is growing recognition of the importance and value of integrating Western and First Nations' knowledges to inform climate change mitigation and adaptation. Led by Aboriginal communities in Warumunga Country (Tennant Creek NT), Whadjuk Nyoongar Country (Perth WA) and Bundjalung Country (Northern Rivers NSW), the Healing Country project seeks to respectfully weave together traditional Knowledges with environmental and health data into interactive, digital story-data maps. Using these multiple information sources, the project will bring together relevant system stakeholders and community to co-design and implement climate change mitigation and adaptation strategies embedded within a community co-designed evaluation and monitoring framework. This study also provides an opportunity to strengthen the capacity of participating Aboriginal communities by the co-creation of culturally appropriate impact evaluation tools and resources, adaptable to local contexts.

METHODS This four-year project (commencing July 2022) is Aboriginal led, overseen by Elders and cultural experts, driven by community needs and priorities and facilitated by Aboriginal project officers/map-makers and lead researchers. We will utilise participatory community-based mapping processes to respectfully map community stories, traditional Knowledges (qualitative) and quantitative data (e.g., temperature, rainfall, air quality, socio-demographics, morbidity and mortality) to capture the 'what' and 'why' of health and social issues associated with environmental exposures. This project will be conducted within a framework that upholds Indigenous Cultural and Intellectual Property rights and is consistent with the principles of Indigenous Data Sovereignty.

EXPECTED OUTCOMES The story-data maps will be a unique and powerful blend of information sources that will form a rich evidence base and decision support tool for communities and other stakeholders, including environment and health agencies. Based on the story-data maps, the project will co-produce and begin implementation of three community adaptation plans in a variety of environmental settings.

IMPLICATIONS Healing Country brings together Aboriginal and Western knowledges to support local community action to reduce impacts from a changing climate, strengthen community resilience and protect Country for future generations. In this way, the project at a local level, seeks to address a global challenge empowering communities to respond to the risks posed by climate and environmental change, simultaneously strengthening social and cultural determinants and addressing health inequity.

Winya Marang the management and prevention of type 2 diabetes among Aboriginal families in Wellington, NSW

Tegan Dutton & Alison Amor

Tegan has been employed as a research officer at the Western Sydney University, Bathurst Rural Clinical School for almost 10 years. Here she has been involved in a wide range of regional/rural based research projects and evaluations, both in the community and the hospital setting.

Alison Amor, Registered Nurse, Credentialed Diabetes Educator with in excess of 15 years experience working in chronic disease management and more recently diabetes management. Currently employed as the Team Lead, Chronic Disease and Prevention for Marathon Health based in Dubbo, Alison is passionate about supporting people living with type 2 diabetes to better understand their diabetes and improve their self-management. Alison has been working as a Diabetes Educator since 2016 and in this time, has travelled out to a number of smaller communities across the Western NSW footprint to work collaboratively with local service providers and health professionals to support diabetes management including the Aboriginal Health Services at Dubbo, Wellington, Coonamble, and most recently Gilgandra. She strongly believes that the geographical isolation we experience in rural communities should not disadvantage our access to quality health care. She is also passionate about supporting health professionals, including Aboriginal Health Workers and Practitioners to build their skills and confidence to better support community members living with diabetes.

1. Mrs Tegan Dutton, Western Sydney University. Tegan.Dutton@westernsydney.edu.au, Bathurst NSW
2. Mrs Alison Amor, Marathon Health, alison.amor@marathonhealth.com.au, Dubbo NSW 2830

BACKGROUND In 2021, Marathon Health piloted the Winya Marang Aboriginal diabetes program in Wellington. This was an 18-month 'family' model program designed to improve management of diabetes and prevent intergenerational diabetes experienced among the Aboriginal populations. The Winya Marang program was evaluated by Western Sydney University Bathurst Rural Clinical School researchers. The program was funded by the Department of Health and included a diabetes educators, Aboriginal Health Worker and dietician. Free continuous glucose monitoring (CGM) devices were provided to participants. The program was designed to be responsive to the needs and wants of participants, rather than being a prescribed set of lessons/sessions. The study aimed to examine participant health outcomes, determine the feasibility and acceptability of the program from the community's perspective, and explore the experiences of service providers/stakeholders.

METHODS Pre and post clinical screening and health surveys were completed with participants, and initial data was aggregated and summarised using descriptive statistics. Focus groups and interviews are currently being completed with participants, Winya Marang staff and other stakeholders to explore their experiences with the program. Thematic analysis will be performed throughout August/September to identify key themes.

RESULTS and EXPECTED OUTCOMES Initial findings from interviews and focus groups demonstrate that the program contributed to enhanced knowledge of diabetes management and behaviour change, particularly around diet. The family approach to diabetes management enabled family members/partners in the household without diabetes to assist those with diabetes in managing their diet and diabetes overall. The CGM devices provided an opportunity for participants to monitor, understand and manage their glucose levels. Initial analysis of the interviews also highlighted the peculiarity of individual family wants, needs and desires in regards to support and education, and this also differs across stages of life.

CHALLENGES The negative impact of COVID-19 was observed as face-to-face family and group sessions were interrupted in the community. Whilst Marathon health attempted to stay in touch, this was difficult, and slowed the program momentum. Take-home messages Programs that are designed to meet the varying needs and desires of participants, in this region particularly across stages of life need to be flexible. This pilot program has demonstrated that intense family and group based diabetes management (even over a short period of time) can have a positive impact on lifestyle and diabetes management. It is essential for programs/service providers to constantly obtain feedback from participants and reassess service delivery to ensure it meets their needs.

Healing the Spirit Within

Kerryann Stanley

A proud Wiradjuri woman from Wellington NSW, Kerryann is proud in self, proud in culture and determined to continually strive towards positive cultural outcomes for her community and her people.
Kerryann presents with a strong educational teaching and cultural design/facilitator background and is passionate and driven in applying her cultural lived experience, her cultural and professional knowledge, and gives back to her people, empowering them to be leaders of their own design.

1. Ms Kerryann Stanley, Kerryann Cultural Educator and Consultant, kerryann65@outlook.com, Wellington NSW 2820

BACKGROUND I am a proud Aboriginal woman from the Wiradjuri nation (Wellington, NSW). Our town recently has been exhausted with continual despair surrounding tragedy, sorry business inclusive of the impact of Covid. Being a trained facilitator of the Grief and Loss program "Seasons of Healing" the loss and tragedies that our community were facing during this dark period brought to my attention the impact that "Sorry Business" and loss in general has on our children. I was gravely concerned regarding our young ones, specifically adolescents,

as grief and loss in all its forms consumes you. By Grief in all its form I am meaning NOT only death, but a loss of dad being sent to prison, best friend moves away (all forms of loss), how do they.

1. Identify/Recognise their grief, loss, hurt and pain

2. Understand their emotions and be able to unpack and name

3. Manage their emotions and have the tools, resources, knowledge, skills and supports to do so Local Aboriginal Stakeholders are supportive of project

METHOD I am a firm believer research, policies, projects and programs MUST be developed with my people and NOT for my people, so in the true essence of this statement I am wanting to host various focus groups in Wellington and maybe even Dubbo with our Koori adolescents to gain their current knowledge of Grief and loss, and for them to guide me how to develop a program that will be designed for them WITH them not just at the initial stages but I want the children to own this project and be proud of their accomplishments. In order to do this research, the research is just the initial stage of gathering their information I would like to formulate a Healing the Spirit Youth Advisory Panel, whom I will continually consult and take advise from on all stages of this project.

RESULTS With the guidance and influence of the Wellington Aboriginal Youth and community to develop a Healing my Spirit Package that can be distributed to schools and Health Services

CHALLENGES 1. Funding, to allow this project to develop financially on all development stages from the research to the collation of a Healing my Spirit Package

“Our light of spirit may sit dormant and even dull at times, but it must NEVER go out, for it is our light of ancestors and must be carried within times”.

Cost savings to patients and the health system by providing specialist head and neck surgery outreach clinics in regional NSW

Rebecca Venchiarutti

Rebecca is a health services researcher and clinical epidemiologist, whose work focuses on improving access to head and neck cancer services for people living in regional and remote NSW. She is a post-doctoral research fellow at the Chris O'Brien Lifehouse, where she is Stream Lead for Regional and Remote Head and Neck Cancer Research and is an honorary lecturer in clinical epidemiology at the University of Sydney School of Public Health. She completed her PhD at the University of Sydney in 2021, with her thesis exploring pathways to diagnosis and treatment of head and neck cancer in NSW. She is currently leading a large study utilising routinely collected administrative health data from across NSW and the ACT to investigate geographic variations in outcomes of head and neck cancer.

1. Dr Rebecca Venchiarutti, Chris O'Brien Lifehouse, rebecca.venchiarutti@lh.org.au, Camperdown NSW 2050
2. Dr Alison Pearce, University of Sydney, alison.pearce@sydney.edu.au, Camperdown NSW 2050
3. Ms Lara Mathers, Chris O'Brien Lifehouse, lara.mathers@lh.org.au, Camperdown NSW 2050
4. Ms Tania Dawson, Chris O'Brien Lifehouse, tania.dawson@lh.org.au, Camperdown NSW 2050
5. Prof Jonathan Clark, Chris O'Brien Lifehouse, jonathan.clark@lh.org.au, Camperdown NSW 2050
6. Prof Carsten Palme, Chris O'Brien Lifehouse, carsten.palme@lh.org.au, Camperdown NSW 2050

BACKGROUND AND AIM Access to head and neck cancer (HNC) surgical services in regional and remote Australia is limited, resulting in patients needing to travel long distances for consultations and treatment. Outreach clinics offer a model of care that allows diagnostic and follow-up services to be offered locally. The aim of this study was to estimate cost savings to patients and the health system through provision of outreach clinics.

METHODS Three outreach clinics offered through the Chris O'Brien Lifehouse (COBLH) in regional NSW were retrospectively audited over a four-year period. Under various assumptions, direct costs of transport and accommodation were estimated based on distance between i) the patient's residence and the patient's regional clinic and ii) the patient's regional clinic and the COBLH in Sydney. Reimbursement through government travel support schemes were also estimated. Results are presented as descriptive statistics and costs reported in 2022 Australian dollars.

RESULTS A total of 657 patients attended the three clinics over the study period accounting for 1,981 appointments. Depending on mode of travel, median cost of return travel to Sydney per appointment ranged from $379 to $739 per patient, and government reimbursements ranged from $182 to $279. In contrast, cost of return travel to local regional clinics ranged from $28 to $163 per appointment. Provision of regional clinics was estimated to save patients a median of $285 per trip and avoided government reimbursements of $215 per trip, totalling $570,000 and $335,000 respectively over the four-year audit. Based on government reimbursement rates, we estimated that only between 35-50% of travel and accommodation costs would be reimbursed, leaving patients significantly out of pocket.

CONCLUSIONS Outreach clinics for HNC surgical services result in significant savings to patients and the health system, especially given that less than half of costs are typically reimbursed to patients for transport and accommodation. Investment in this model of care can improve access to value-based, high-quality care that optimises patient outcomes. Governments could reinvest costs saved by avoiding reimbursement for travel into regional capacity building to strengthen access to specialist services.

Interweaving Antimicrobial Stewardship a multidisciplinary team model of care improves optimal prescribing in rural and remote health care.

Amelia Wagstaff, Sam Gersbach & Kate Grogan

Amelia Wagstaff is the Co-Deputy Director of Pharmacy and Acting Area Educator at Orange Health Service where she has been employed for the past five and a half years. Prior to her employment in Orange she was working in the community at a pharmacy in Sydney's Northern Beaches. She made a 'tree-change' in order to diverge the course of her career as a pharmacist, and states 'it has been the most rewarding decision she has ever made.' She has since become extremely passionate about rural health care, and constantly strives to enhance medication management throughout WNSWLHD. She graduated at Sydney University with a Bachelor of Pharmacy, First Class Honours in 2011. Her honours paper was published in Inorganica Chimica Acta in 2012.

Sam Gersbach is an early career pharmacist based out of Orange in the Central West. After completing her internship at Orange Health Service in 2021, she assisted in the roll out of the Virtual Clinical Pharmacy Service to smaller rural hospitals in Western NSW Local Health District. Sam recently contributed to the evaluation of a new antimicrobial stewardship tool in the electronic medical record by assessing the appropriateness of antibacterial prescriptions to optimise treatment outcomes and reduce levels of antimicrobial resistance. Sam has an interest in antimicrobial stewardship and quality improvement and looks forward to future opportunities to improve the quality use of medicines.

1. Ms Kate Grogan, Virtual Clinical Pharmacy Service, kathryn.grogan@health.nsw.gov.au, Orange NSW 2800
2. Mr Nathan Chahoud, Orange Health Service, nathan.chahoud@health.nsw.gov.au, Orange NSW 2800
3. Ms Amelia Wagstaff, Orange Health Service, amelia.wagstaff@health.nsw.gov.au, Orange NSW 2800
4. Ms Samantha Gersbach, Virtual Clinical Pharmacy Service, samantha.gersbach@health.nsw.gov.au, Orange NSW 2800
5. Dr Jacob Williams, Orange Health Service, jacob.williams@health.nsw.gov.au, Orange NSW 2800

BACKGROUND & AIM Antimicrobial Stewardship (AMS) programs have been shown to reduce antimicrobial use, improve appropriateness of antimicrobial choice and reduce the rates of resistance, morbidity and mortality. There are greater levels of inappropriate prescribing of antimicrobials in rural and regional areas compared to major hospitals. Previous studies have shown the potential positive effect of electronic medical record (eMR) on workflow with AMS teams in major centres. This project aimed to examine the effect of implementation of post prescription review interventions, in the context of the AMS eMR system across the Western NSW LHD (WNSWLHD).

METHODS A prospective cohort study occurred between 22/02/2022 and 04/04/2022 at Orange Health Service and Canowindra Soldiers Memorial Hospital. The AMS team included pharmacists, on-site medical officers and an infectious disease (ID) specialist. Twice weekly multidisciplinary team (MDT) rounding was conducted with all antimicrobial prescriptions charted on the day being audited. During the pilot, 189 patients were assessed across two hospitals and six wards.

RESULTS The results demonstrated a consistently high acceptance of the review process. The mean optimal initial prescription was 38%, showing no increase in optimal prescribing over time. While prescribing practices did not improve over time, following intervention, optimal antibiotics were given in 79% of patients reviewed within 24 hours. This ensured that patients were receiving evidence-based, world class healthcare regardless of the size and location of the hospital in which they were admitted.

CHALLENGES Challenges associated with this trial included a short trial period and limited processes for rounding prior to the introduction of the pilot.

IMPLICATIONS OR CONCLUSION This project demonstrates how an MDT and eMR tool can monitor and provide AMS advice virtually and on site to provide optimal care for patients. The increased collaboration across MDTs in the district resulted in high recommendation uptake and therefore improvements in the appropriateness of antimicrobial use for patients being treated in WNSW. This innovative model of care implies that no matter your

location in WNSWLHD, improved antimicrobial prescribing can be achieved. An opportunity exists for the implementation of a more robust AMS rounding program for the future.

Referral pathways for patients suffering Major Trauma in rural and remote NSW a retrospective study comparing single and dual regional trauma service models

Adam Autore

Originally from Wollongong - completed a Bachelor of Medical & Health Sciences at University of Wollongong
3rd Year Medical Student at the University of Sydney - School of Rural Health Orange
First involvement in research - definitely won't be the last
Interested in rural healthcare and improving access

1. Mr Adam Autore, University of Sydney, aaut4526@uni.sydney.edu.au, Orange NSW 2800
2. Dr Emma Webster, University of Sydney, emma.webster@sydney.edu.au, Dubbo NSW 2830
3. Dr Daniel Stewart, University of Sydney, daniel.stewart@health.nsw.gov.au, Dubbo NSW 2830
4. Dr Julie Tall, University of Sydney, julie.tall@health.nsw.gov.au, Canberra ACT 2601

OBJECTIVE To compare the number of patients suffering major trauma between the northern and southern Sectors of the Western NSW Local Health District (WNSWLHD), to quantify the number of patients transferred from the northern sector to Orange Health Service (OHS), and to compare the total time and distance that could be saved if Dubbo Health Service (DHS) was reinstated as a Regional Trauma Service (RTS).

METHODS Cross-sectional retrospective study. Geographic Information System coordinates for point-of-origin and point-of-destination were used to estimate transfer time and distances travelled by patients. The WNSWLHD Trauma Service database contains patients who met criteria for major trauma and were retrieved from a primary response location or peripheral facility to DHS or OHS between 1 September 2016 and 31 August 2021.

RESULTS Data for 729 eligible patients were extracted. Of these, 302 (41%) originated from the northern sector and 427 (59%) from the southern. All southern sector patients were treated at OHS, however only 257 (85%) of northern sector patients were treated at DHS. Forty-five patients were transferred from the northern sector to OHS. The average decrease in total transfer time and distance for these patients when comparing single and dual-RTS models was 78.3 minutes ($t=13.1, p<0.001$) and 95.8 kilometres ($t=10.0, p<0.001$) respectively.

CHALLENGES Firstly, during data collection where MRN's were used to search through patient records and extract key variables some patient records were incomplete, did not contain sufficient information or there was duplicate patient records. In total, 5 patients were excluded from the dataset. Another limitation centred around times for air-medical retrievals, either helicopter or fixed-wing planes. To maintain consistency across the data, we decided to use the rural driving transfer time as the time component and used the GIS distance measured to maintain the accuracy of the total transfer distance component. Finally, a key limitation was that of the time constraints. This meant that factors such as morbidity and mortality rates were not included otherwise it risked the timeline of the project blowing out. However, to uphold the validity and accuracy of the results produced, we were able to find solutions

CONCLUSION There is a difference in the total transfer time and distance for northern sector patients suffering major trauma in the WNSWLHD. Transferring patients shorter distances to DHS has impacts on morbidity and mortality as well as proximity to support networks and services.

A One Health System Approach Working in partnership for better health outcomes through Care Partnership - Diabetes (CP-D) program planning in Western and Far West NSW

Sharif Bagnulo

1. Mr Sharif Bagnulo, NSW Rural Doctors Network, sharifbagnulo@gmail.com, 12 Timothy Close, 2126
2. Dr Rabiah Al Adawiyah, Western NSW Local Health District, rabiahal.adawiyah@health.nsw.gov.au, Sydney NSW 2000
3. Ms Rachel Hart, Western NSW Local Health District, rachel.hart@health.nsw.gov.au, Mudgee NSW 2850
4. Ms Melissa Welsh, Far West NSW Local Health District, melissa.welsh@health.nsw.gov.au, Broken Hill NSW 2880
5. Dr Nina Holland, Western NSW Health Intelligence Unit, nina.holland@health.nsw.gov.au, Dubbo NSW 2830
6. Mr Tristan Bouckley, The George Institute, tbouckley@georgeinstitute.org.au, Newtown NSW 2042

AIMS AND BACKGROUND To explore, document and reflect on the initial partnership approach to planning CP-D and its goal of reducing fragmentation to improve health outcomes for people living with type 2 diabetes (T2DM) in Western and Far West NSW; and grow the partnership to support GP practices, Aboriginal Community Controlled Health Services (ACCHSs), and hospital services to enhance quality of care and support the health workforce. Western NSW has one of the most vulnerable populations in NSW experiencing high levels of chronic diseases, bio-medical and lifestyle risk. Around 13% of the 279, 000 people living in Western NSW LHD are Aboriginal, and the region spans 246,000 square kilometres.

METHODS This work reports of a partnership used to plan CP-D services for people living with T2DM; supports for GP practices, ACCHSs and hospital services; and resources for the health workforce. Using the theory of system change, we describe how organisational partnerships and trust initiate and enable novel ways of working and plan for improved service quality. A project document analysis is conducted to examine the process and challenges of partnering and engaging different stakeholders in the partnership.

RESULTS and EXPECTED OUTCOMES The partnership reported here led to consensus amongst diverse and multiple partners and agreed approaches to program planning, increasing resources, data collaboration, communication and stakeholder engagement that leveraged individual partner's strengths. Expected outcomes include enhanced governance and planning mechanisms that are foundational to program planning, implementation and quality improvement; and expanded opportunities to inform policy and embed evaluation processes. Further strengthening the partnership with Aboriginal community controlled health sector representation and expertise will contribute to culturally safe program planning and experiences for Aboriginal peoples.

CHALLENGES Contextual challenges include four organisations, a large geographical area with diverse communities, the rural health environment with workforce and resource limitations, T2DM health system complexity, and pandemic disruption. Observed challenges include learning how to plan change and adoption together; balancing time pressure with partnership and quality; ensuring partner representation despite competing priorities; and multiple interpretations of agreed approaches. Implication/conclusion Partnership models of coordinated health program planning have great potential in enabling different organisations to support each other by leveraging their strengths, relationships and knowledge, and can attract increased resources. This paper specifically contributes to the knowledge of developing a 'One Health System', placed-based partnership approach to offer an enhanced model of governance and care to improve health outcomes in Western and Far West NSW.

Collaborative Care for Remote and Rural Communities (Documentary)

Jessica Harris

1. Mr Justyn Walker, NSW Rural Doctors Network, jwalker@nswrdn.com.au, Hamilton NSW 2303
2. Dr Jessica Harris, NSW Rural Doctors Network, jharris@nswrdn.com.au, Hamilton NSW 2303

The Collaborative Care Program is a community-centred planning approach to address primary health care challenges in remote and rural NSW. These challenges include the recruitment and retention of primary health professionals, financial sustainability of health services, and continuity of care. The Program is the result of an ongoing collaboration between NSW Rural Doctors Network (RDN) and our partner agencies that cooperatively administer the projects. NSW Rural Doctors Network (RDN) established in 1988, is a not-for-profit, non-government charitable organisation that works to create and sustain access to quality multidisciplinary healthcare for all Australians no matter where they live. The Collaborative Care documentary includes different community-based development models that show how local organisations, local government, health professionals, and communities come together to develop shared priorities and solutions. Viewers will learn, from the communities and health workforce using the model, about the importance of trialling new models of primary health care in rural areas to help improve access to health services. It also highlights some of the key factors for addressing rural health access challenges which will have applicability in other communities. Deliberate team-based care, health workforce literacy, health workforce capability, working in partnership and trust are all key concepts being explored to improve viability of remote practice and workforce retention and recruitment. In most cases these models do not rely on new funding, but rather redeploy existing funding and available levers to do things differently. Note a link to the documentary is not currently available but will be soon.

Perceptions of Remote In-home Monitoring in Rural Women with Gestational Diabetes Mellitus

Catherine Wang

My name is Catherine Wang and I'm a third-year postgraduate medical student at the University of Sydney, on my elective rural placement in Orange. Earlier this year, I had the pleasure of working with Professor Catherine Hawke and colleagues from the Western NSW Health team for my MD project to conduct a qualitative study on the perceptions of remote in-home monitoring in rural women with gestational diabetes mellitus. It was my first undertaking as a researcher, and I found it to be a very rewarding experience. I hope to revisit Orange and other parts of Western NSW in the future once I am qualified to practice as a clinician.

1. Ms Catherine Wang, University of Sydney, cwan0518@uni.sydney.edu.au, Orange NSW 2800

INTRODUCTION Rural women face a higher proportion of pregnancies complicated by gestational diabetes mellitus (GDM) due to barriers in access to equitable maternity and infant healthcare services. Remote in-home monitoring (RiHM) has been shown to achieve glycaemic control in patients with GDM without compromising quality of care, but patient perspectives have not been explored. This study aims to investigate the perceptions of RiHM in women with GDM living in rural Western NSW.

METHODS. Participants enrolled in the RiHM program between service periods of January 2021 - December 2021 were identified. Semi-structured interviews were undertaken. Qualitative data was analysed using a hybrid thematic analysis approach.

RESULTS. RiHM was viewed favourably by three of the four women who consented to participate. The perceived benefits included lowered anxiety and reduced stress of attending face to face appointments. This complemented their lifestyles as busy, working mothers. Concerns were raised about the additional tasks involved in RiHM, and the potential costs incurred by the remote monitoring set-up. Most users recommended the service to all mothers, irrespective of whether they lived in a rural or metropolitan location.

CONCLUSION This study contributes important patient voices to the literature about the use of RiHM technology in the management of GDM. Women considered RiHM a viable alternative to in-person clinics and that it addressed the barriers to accessing maternity and infant health care services in a rural setting. Perceived benefits of RiHM need to be measured against concerns of additional responsibilities and costs involved for the patient. Information from the study can be used by policy makers in the evaluation of the service.

Telepractice in early childhood intervention A family-centred approach

Genevieve Johnsson

Genevieve is a psychologist with 15 years of experience working in the disability sector. Genevieve is also an affiliate with the Centre for Disability Research and Policy at the University of Sydney and is passionate about community-based participatory research and developing programs and services that improve access for children with a disability and their families. Genevieve's completed a PhD with the University of Sydney on technology-based training for rural and remote staff supporting autistic children. Her research areas include family wellbeing and support, early childhood disability and inclusion, rural and remote service access, and the role of telepractice in providing quality support. Genevieve will be presenting on family centre telepractice, a partnership project between University of Sydney, Western Sydney University, Monash University and Reimagine Australia.

1. Dr Genevieve Johnsson, University of Sydney, genevieve.johnsson@sydney.edu.au , Camperdown NSW 2006

2. Dr Kim Bulkeley, University of Sydney, kim.bulkeley@sydney.edu.au , Camperdown NSW 2006
3. Jenna Bongioletti, University of Sydney, jenna.bongioletti@sydney.edu.au , Camperdown NSW 2006
4. Dr Anoo Bhopti, Monash University, Anoo.Bhopti@monash.edu , Frankston VIC 3199
5. Associate Professor Christine Johnston, Western Sydney University, C.Johnston@westernsydney.edu.au , Penrith NSW 2751
6. Dr Joanne Hinitt, University of Sydney, joanne.hinitt@sydney.edu.au , Camperdown NSW 2006

BACKGROUND Access to early childhood intervention is problematic in rural and remote areas due to local workforce shortages, resulting in long wait lists and underutilised NDIS plans. Telepractice has made slow but steady progress in delivering specialist early childhood support, regardless of geographical location in the past ten years. The onset of COVID was a major disruptor that resulted in many practitioners rapidly shifting to online modes of service delivery. We are now exploring how families and practitioners integrate this model into their practice in the longer term. Aims This study explores the current use of telepractice in the early childhood intervention sector and alignment with family-centred, best practice. We also identify the barriers when including telepractice as part of family-centred early childhood support at an individual practice and policy level.

METHODS We applied an online survey design to collect quantitative and qualitative data from early childhood practitioners who have experience in delivering telepractice supports. A total of 259 early childhood practitioners completed the survey including speech pathologists, occupational therapists, psychologists, educators, physiotherapists, social workers, and others.

RESULTS The majority of practitioners (75%) started using telepractice due to the onset of COVID and a small proportion (12%) intend to resume face to face services only. Half of practitioners delivered services in regional, rural and remote areas, with half of these practitioners delivering exclusively to the early childhood cohort. Factors of a family-centred approach that were reported to be easier to implement included helping parents feel like a partner in their child's early childhood intervention, making sure parents had opportunities to have input into their child's intervention goals, and trusting in parents as the â"expertsâ€ on their child. Less easy factors were building rapport with families and engaging in collaborative practice. Years of experience in delivering early childhood intervention correlated with some of these factors. Practitioners discussed types of supports, groups of people, or contexts that were more suited to an in-person model rather than a telepractice model.

IMPLICATIONS Our data identified a willingness from practitioners to adopt this model of service and the potential of telepractice to provide high quality, family centred early childhood supports. Based on the findings, there is a need to develop practice-based resources to support the ongoing development of practitioners in this emerging area.

eHealth interventions to improve diet, alcohol use, and smoking among rural adolescents A systematic review.

Lyra Egan

Lyra Egan is a Research Assistant and PhD candidate at the Matilda Centre, University of Sydney. She holds a BSc in Psychology and BA in Spanish & Latin American Studies and Germanic Studies (2017), and MPH (2020) from the University of Sydney. Since 2020, Lyra has supported the upscaling of the rigorously evaluated and effective OurFutures (formerly known as Climate Schools) substance use and mental health e-Health school-based programs. In 2021, she Lyra was awarded a Paul Ramsay Foundation PhD Scholarship for her research into preventing poor diet, alcohol use, tobacco smoking and vaping among adolescents from low socioeconomic and remoteness areas (nationally and internationally) through eHealth interventions.

1. Ms Lyra Egan, The Matilda Centre for Research in Mental Health and Substance Use, The University of Sydney, lyra.egan@sydney.edu.au, Camperdown NSW 2006

2. Dr Katrina Champion, The Matilda Centre for Research in Mental Health and Substance Use, The University of Sydney, katrina.champion@sydney.edu.au, Camperdown NSW 2006
3. Dr Lauren Gardner, The Matilda Centre for Research in Mental Health and Substance Use, The University of Sydney, lauren.gardner@sydney.edu.au, Camperdown NSW 2006
4. Prof Nicola Newton, The Matilda Centre for Research in Mental Health and Substance Use, The University of Sydney, nicola.newton@sydney.edu.au, Camperdown NSW 2006

BACKGROUND AND AIMS Chronic disease disproportionately affects disadvantaged populations including those living in geographically remote areas. Preventing risk behaviours including poor diet, alcohol use, tobacco smoking and e-cigarette use (vaping) in adolescence is critical for reducing chronic disease risk. While eHealth interventions can be effective, it is unclear whether they adequately serve disadvantaged adolescent populations. We conducted a systematic review to synthesise evidence for the effectiveness of eHealth interventions targeting adolescents living in geographically remote areas and/or lower socioeconomic areas in preventing poor diet, alcohol use, tobacco smoking and vaping. This presentation will focus on findings relating to geographically remote adolescent populations.

METHODS Seven electronic databases were systematically searched. Eligible studies were randomised controlled trials and quasi-experimental trials of eHealth interventions targeting diet, alcohol use, tobacco smoking and vaping among adolescents, that reported on geographical remoteness or at least one marker of socioeconomic status. Two reviewers screened, extracted data, and assessed risk of bias. Following assessment of the quality of the body of evidence by two reviewers, findings will be summarised in a narrative synthesis.

RESULTS 3216 articles were identified and screened. Of the sixteen deemed eligible, five focused on geographically remote adolescent populations aged 9 to 17 years. Three studies targeted poor diet, one targeted alcohol use, and one study targeted alcohol and tobacco smoking. No studies targeted vaping. Studies were conducted in the USA (n=3), Australia (n=1) and Thailand (n=1), and delivered the intervention via a website (n=2), telephone (n=2) or CD-ROM (n=1). Theoretical bases included Social Learning Theory, Social Cognitive Theory, Cognitive Behavioural Theory, and the CALO-RE Taxonomy of behaviour change techniques. Two studies were effective in reducing alcohol and tobacco use and increasing alcohol knowledge, two were partially effective in modifying diet, and one was not effective.

CHALLENGES Due to the small sample size of included studies, challenges include identifying study components influencing intervention outcome e.g., theoretical basis, dose, co-design utilisation, eHealth delivery method (e.g., telephone-based), or other sociodemographic variables.

IMPLICATIONS There is a lack of eHealth interventions targeting adolescents living in geographically remote areas in preventing poor diet, alcohol use, tobacco smoking and vaping and further research is needed. Possible strategies to improve future interventions include utilising ecological momentary assessments and designing interactive interventions with booster sessions. Findings from this systematic review will inform future research to develop and evaluate effective eHealth interventions specific to adolescents living in geographically remote areas to address health inequities.

Evaluation of the Western NSW LHD Virtual Rural Generalist Service as an effective, 'COVID-19 resilient' model of care

Georgina Luscombe & Anna Thompson

Georgina Luscombe is Associate Professor of Rural Health at The University of Sydney School of Rural Health. Her research supports the rural health research agenda, with a focus on innovative rural service delivery models, rural health workforce development and health issues directly impacting rural populations. Working in collaboration with the Western NSW Local Health District, her research and evaluation work aims to improve health services and public health policy and practice.

1. Dr Shannon Nott, WNSW LHD, shannon.nott@health.nsw.gov.au, Dubbo NSW 2830
2. Dr Amanda Ampt, University of Sydney School of Rural Health, amanda.ampt@sydney.edu.au, Orange NSW 2800
3. Dr Anna Thompson, University of Sydney School of Rural Health, Anna.Thompson@sydney.edu.au, Orange NSW 2800
4. On behalf of the VRGS Evaluation Team, georgina.luscombe@sydney.edu.au, Orange NSW 2800

BACKGROUND & AIMS Rural communities experience poorer health outcomes and struggle to recruit and retain a skilled medical workforce. COVID-19 is especially challenging for rural communities due to rural population vulnerabilities, workforce shortages, reliance on fly-in-fly-out workforce and limited ability to cope with a sudden influx of patients. In February 2020 the Western NSW Local Health District (WNSWLHD) initiated a Virtual Rural Generalist Service (VRGS) to assist communities without a local GP / Visiting Medical Officer (VMO) or where fatigue support was required. This research will evaluate the impact and influence of the VRGS on workforce for rural communities in relation to providing a COVID-resilient solution.

METHODS The planned evaluation is a multi method project involving (i) a document analysis compiling and detailing operational aspects of the VRGS; (ii) audits of WNSWLHD Emergency Department (EDDC) and Admitted Patient (APDC) data collections (pre and post VRGS implementation); (iii) an economic analysis; and (iv) interviews with WNSWLHD patients, carers, community, clinicians, managers and executive staff to provide a richer understanding of the impact of VRGS on clinical capacity, workforce, and the patient and clinician experience. The quantitative analyses compare health outcomes i) before and after implementation, and ii) by doctor category (VRGS/non-VRGS) using linkage across EDDC and APDC with operational rosters.

RESULTS or EXPECTED OUTCOMES Expected outcomes of this research include

- understanding of the safety and clinical utility of VRGS for COVID-19 vulnerable rural communities;
- evaluation of clinical outcomes;
- scalability/translation to other rural LHDs;
- recommendations to NSW Health regarding the utility of a virtual medical model for COVID-19 and workforce-challenged communities across NSW; and
- adding to global evidence regarding the clinical safety and quality of virtual medical models during a global pandemic.

CHALLENGES Defining patient/doctor 'cohorts'. There is no flag within the routinely collected data to easily identify patients seen within the VRGS service.

IMPLICATIONS / TAKE-HOME MESSAGE The VRGS is the first integrated rural and remote virtual care model in Australia. The findings will have national and international implications given the shared challenges of improving patient outcomes and workforce recruitment and retention across Australia. Knowledge gained through this study will support the translation and potential scale/adoption of the service to support surge and workforce capacity for further potential waves of the COVID-19 pandemic or other pandemics. It will also provide evidence regarding the effectiveness of virtual medical models to support workforce-challenged regions of Australia.

Physiotherapy telehealth to improve mobility and reduce falls in aged care (TOP UP) feasibility and emerging qualitative analysis

Rik Dawson

Rik Dawson is an experienced aged care physiotherapist, and PhD candidate at the University of Sydney. His research will answer key questions about whether physiotherapy delivered via telehealth can reduce falls, enhance mobility and quality of life of older people with and without dementia receiving aged care services in their home or in residential aged care. As the Vice President of the Australian Physiotherapy Association Rik has a passion for advocating for increased physiotherapy access to all people.

1. Mr Rik Dawson, Institute for Musculoskeletal Health, Faculty of Health and Medicine, School of Public health, University of Sydney, rik.dawson@sydney.edu.au, Camperdown NSW 2050

2. Professor Cathie Sherrington, Institute for Musculoskeletal Health, Faculty of Health and Medicine, School of Public health, University of Sydney, cathie.sherrington@sydney.edu.au, Camperdown NSW 2050
3. Dr Abby Haynes, Institute for Musculoskeletal Health, Faculty of Health and Medicine, School of Public Health, University of Sydney, cathie.sherrington@sydney.edu.au, Camperdown NSW 2050

BACKGROUND Deteriorating mobility and falls reduce quality of life for people in aged care. Tailored balance and strengthening exercise programs delivered by physiotherapists have been shown to improve mobility and prevent falls in older people aged 65+ years. Telehealth physiotherapy is emerging as an innovative method of service delivery for older people living in regional and remote Australia and during the COVID-19 pandemic. This trial aims to establish the effect on mobility and falls of a telehealth physiotherapy program compared to usual care in older people aged 65+ years receiving aged care services in their home or in residential aged care.

METHODS This hybrid Level 1 effectiveness and implementation randomized controlled trial aims to recruit 240 older people receiving aged care services aged 65+ years. Participants will be randomised to either (1) the Telehealth Physiotherapy (TOP UP) Program or (2) a waitlist control group. The primary outcome is the change in mobility as measured by the change in the Short Performance Physical Battery (SPPB) test score from baseline to 6 months after randomisation. Secondary outcomes include rates of falls, 5 times sit-to-stand, quality of life, and goal attainment. Our data includes purposively sampled interviews with aged care consumers who received the telehealth intervention (n=16), aged care workers who acted as exercise coaches (n= 6), physiotherapists who delivered the intervention (n=6) and aged care service managers (n=6). We are using an interpretative description approach to identify thematic patterns to develop theories about how the program generates outcomes.

RESULTS Trial is underway with 130 participants recruited, 52 completed the intervention in NSW, Victoria and WA. Feasibility data indicate that our participants are able to exercise for one hour per week and prefer to exercise with supervision Preliminary findings indicate that the TOP UP intervention works well for participants due to the convenience of receiving telehealth in their own home, reduced burden of travel and the appropriateness of senior friendly online exercise resources such as videos and apps to assist with exercise adherence and motivation. Physiotherapists and aged care service managers agree that telephysio is safe in aged care.

CHALLENGES COVID has made recruitment difficult and caused a 25% loss to follow up to date.

LEARNING OUTCOMES Increasing the understanding of the implementation strategies is required to support telehealth physiotherapy uptake and sustainability for mobility and fall prevention programs in aged care if the TOP UP study is proven effective.

Mental Health Stream

Crossroads II rural mental health

Anushka Dashputre & Uchechukwu Levi Osuagwu

Anushka Dashputre is a fourth-year medical student currently studying at Western Sydney University. She began her medical degree in 2019 and has since developed a keen interest in medical research. This paper was an output of her Summer Research Scholarship in 2021 working with the Diabetes, Obesity and Metabolism Translational Research Unit (DOMTRU) under the guidance of Distinguished Professor David Simmons and direct supervision from Dr Osuagwu Uchechukwu Levi. This experience marked her introduction to rural health research as she engaged with the Crossroads studies to explore mental health outcomes in rural Victoria. She also has a key interest in women's health and is undertaking research alongside a midwifery team to improve birth outcomes for women labouring with an epidural. Anushka hopes to continue building her research capacity in the coming years.

1. Ms Anushka Dashputre, Western Sydney University, 19838276@student.westernsydney.edu.au, Campbelltown NSW 2560
2. Dr Milan Piya, Macarthur Diabetes Center, School of Medicine, Western Sydney University, M.Piya@westernsydney.edu.au, Campbelltown NSW 2560
3. A/Prof Kingsley Agho, School of Health Science, Western Sydney University, k.agho@westernsydney.edu.au, Campbelltown NSW 2560
4. Dr Uchechukwu Levi Osuagwu, Bathurst Rural Clinical, School - School of Medicine, Western Sydney University, l.osuagwu@westernsydney.edu.au, PO Box 9008 Bathurst NSW 2795
5. Distinguished Professor David Simmons, Diabetes, Obesity, Metabolism Translational Research Unit, School of Medicine, Western Sydney University, da.simmons@westernsydney.edu.au, Campbelltown NSW 2560

BACKGROUND & AIMS Rural Australians are known to experience social, economic, and geographical disadvantage compared to their urban counterparts, which has the potential to influence their mental health and wellbeing. However, there is a limited understanding of how such characteristics influence mental health outcomes in rural Australia. The aim of this study is to describe the prevalence of psychological distress, depression, and self-reported mental illness in Australian rural settings and to identify the factors associated with these mental health outcomes.

METHODS Crossroads II is a 15 year follow-up of the Crossroads I study (2000-2003) - a cross-sectional study that included face-to-face household surveys of 3600 randomly selected households across four towns in the Goulburn Valley Victoria. Self-reported data was collected on a wide range of health measures and behaviours. The present study utilised data collected on mental health outcomes, including self-reported diagnoses, symptoms, medication use and/or service use as well as validated questionnaires (K-10 and PHQ-9) on 741 people, aged 18 years and over, randomly selected households. The main outcomes were Psychological distress assessed by the Kessler 10, depression (Patient Health Questionnaire-9 PHQ-9) and self-reported mental illness from use of any mental health service, medication, and diagnosis of mental illness. Unadjusted odd ratios and their 95%CIs of factors associated with the three mental health outcomes were calculated using multiple logistic regression to adjust for the potential confounders.

RESULTS 55.6% were female (n=496) and two thirds were 55 years and older (496, 67.4%). Around one in six people reported psychological distress using the K-10 study (16.2%), one in seven reported major depression (13.6%) while the prevalence of self-reported mental health problems was much lower (9%). Factors such as being a current smoker, obesity, or having asthma were significantly associated with a higher prevalence of mental health symptoms. In contrast, high-risk alcohol consumption and community engagement reduced the risk for psychological distress in this study. When the prevalence rates were examined by rurality, there was no evidence for poorer mental health outcomes across regions in Victoria.

CONCLUSION The prevalence of psychological distress, depression and self-reported mental illness are high, affecting approximately one sixth of the rural population. Personal and lifestyle factors were more relevant to mental health outcomes than degree of rurality in Victoria, the latter of which did not show substantial variation in outcomes. Targeted physical and mental health programmes are urgently needed to service rural areas, especially for these high-risk populations.

The mental health, wellbeing and work impacts of COVID-19 on Community Health Nurses (CHNs) in regional NSW

Clare Sutton

Clare Sutton is a Senior Lecturer in paramedicine at Charles Sturt University. Her research interests relate to resilience and the promotion of health and wellbeing in emergency service workers, students and volunteer responders. She has extensive experience in the emergency services sector with over 20 years frontline experience and has held a number of leadership positions, including program lead of paramedicine at CSU and Chair of the Paramedic Wellbeing Working Group for the Australasian College of Paramedicine (ACP).

1. Ms Clare Sutton, Charles Sturt University, csutton@csu.edu.au, Bathurst NSW 2795
2. A/Prof Larissa Bamberry, Charles Sturt University, lbamberry@csu.edu.au, Albury NSW 2640
3. Dr Stacey Jenkins, Charles Sturt University, SJenkins@csu.edu.au, Wagga Wagga NSW 2650
4. Dr Alain Neher, Charles Sturt University aneher@csu.edu.au, Bathurst NSW 2795
5. Dr Mark Frost, Charles Sturt University, mfrost@csu.edu.au, Bathurst NSW 2795

BACKGROUND AND AIMS The delivery of essential frontline services during COVID-19 presented significant challenges to healthcare workers, especially those in community settings. Community nurses did not have access to the same level of resources and support available to hospital-based colleagues resulting in additional difficulty in carrying out their duties. Due to the geographical distribution and scarce resources in regional NSW, additional pressures arising from COVID-19 further contributed to existing challenges of recruitment and retention. This research aimed to establish the levels of workplace distress and identify the nature and extent of work-related stress related to COVID-19.

METHODS Data was collected through a Qualtrics survey distributed to Community Health Nurses in a single Local Health District in regional NSW. The survey investigated levels of depression, anxiety, stress, burnout and employee engagement and explored contributors to workplace wellbeing during COVID-19. The survey included fixed response Likert scales, ranking scales, standardised validated psychometric measures, and free text response fields. Qualitative data was analysed using NVivo software and quantitative data was analysed using SPSS and Stata statistical software. Human Research Ethics approval was awarded by XXXX University (H20183).

RESULTS There were 59 returned questionnaires. Results revealed anxiety, depression, and burnout rates were significantly higher than found in the general population. Rates of severe depression were double the rates compared to overseas public service workers, and burnout rates were higher than levels reported by hospital-based nurses. The main source of stress identified was the fear of catching and spreading COVID-19 to the community, colleagues, and family. Other stressors were (i) increased workload associated with infection control, (ii) the use of personal protective equipment, and (iii) rapid environmental and organisational change combined with reduced access to stress management activities. Six percent of respondents reported high intention to quit and 36% reported moderate intention to quit. Recommendations to address poor workplace wellbeing include providing practical support, maintaining reasonable workloads, listening to workers' 'frontline reality', and clear communication regarding operational directives.

CONCLUSION AND IMPLICATIONS Despite comparatively low infection and mortality rates in Australia, COVID-19 significantly impacted the workplace wellbeing of Community Health Nurses resulting in alarmingly high rates of depression, anxiety, and burnout. The sustained workload pressures and their effect on wellbeing will have a

long-lasting impact on the delivery of community healthcare. In addition, reports of intention to quit may further contribute to the existing challenges related to recruitment and retention of community nurses in regional NSW.

Rural small business owner management of their mental wellbeing during 2020

Peter Simmons & Hazel Dalton

Associate Professor Peter Simmons DComm, MA

Peter recently commenced with Bathurst Rural Clinical School as a senior researcher and supervisor for MD projects, with a special focus on aligning research with local priorities and needs. He specialises in social research including social media analysis for policy advice. Peter recently completed a national study of impacts of COVID-19 on mental health and wellbeing in rural and remote communities for the Centre for Rural and Remote Mental Health and the National Mental Health Commission. He has led more than 20 funded research studies and published more than 60 peer-reviewed papers, conference presentations and book chapters.

Dr Hazel Dalton PhD, BSc (Hons Class 1)

Senior Research Fellow or Rural Public Health (Health Services), Charles Sturt University

From 2016-2022, Hazel was Research Leader and Senior Research Fellow at the University of Newcastle's Centre for Rural and Remote Mental Health (CRRMH). She remains an Honorary Senior Lecturer with the University of Newcastle. She has managed research across innovation in health service provision (planning, co-design, evaluation, case studies), including integrated care; mental health promotion; collaborative approaches to community wellbeing; and rural suicide prevention. Dr Dalton has worked with primary health networks and local health services across health service evaluation, low-intensity mental health services, stepped care model co-design and evaluation, and regional mental health planning. She was a facilitator for the International Foundation for Integrated Care Australia (IFICA), a collaborative network aimed at advancing integrated care in Australia (2015-2021).

Hazel is interested in translation and communication of research and providing evidence to support programs and inform policy. She has extensive research experience across university and health sectors, with skills in conceptual modelling, and quantitative and qualitative research approaches.
hdalton@csu.edu.au

1. A/Prof Peter Simmons, Bathurst Rural Clinical School / Western Sydney University, p.denyer-simmons@westernsydney.edu.au, PO Box 9008 Bathurst NSW 2795
2. Dr Hazel Dalton, 1. Rural Health Research Institute / Charles Sturt University 2. University of Newcastle, hazel.dalton@newcastle.edu.au, Orange NSW 2800

BACKGROUND AND AIMS Economic and other data highlight the vital role that small business plays in rural communities. Owners are motivated to employ locals and maintain the vitality and viability of their communities, reducing population drift to cities. Small businesses are heavily dependent on individuals, especially owners. However there is little research available on the health and wellbeing of small businesspeople. Small business ownership is associated with onerous workloads, isolation, and other threats to mental wellbeing. Rurality is also associated with business stressors, such as natural adversities and market fluctuations. COVID-19 brought new challenges to small businesspeople, many of whom operate with minimal resource reserves and must interact with diverse customers, suppliers and the public. This study aimed to explored the question How did rural small businesspeople experience and manage their mental wellbeing through the pandemic in 2020?

METHODS Semi-structured qualitative interviews were held between August and September 2020 using Zoom and phone with 11 owners of NSW rural small businesses (<20 employees) in agriculture, health, retail,

hospitality, arts and business services. Interviewees ranged in experience from one year to 37 years, nine were female. Interviews explored small business owner approaches to managing stressors and wellbeing, and impacts of COVID-19. Transcripts were thematically coded with reference to a model for categorising approaches to managing stressors, and inductively for emergent themes.

RESULTS Owners were vulnerable to severe impacts on their mental wellbeing from COVID-19. All interviewees experienced business decline during the 'pandemic recession', and many felt burdened by extra unpaid work associated with meeting public health requirements. The ability to adapt was important for maintaining positive mental wellbeing. Four main themes of adaptation were associated with owners' positive mental wellbeing 1. Maintaining or establishing connections with other businesses, community, friends and loved ones 2. Capacity to change business processes and practices to meet disease control needs 3. Positively reframing one's situation and priorities 4. Prioritising one's own wellbeing, making time for exercise, recreation and enjoyment.

IMPLICATIONS COVID-19 highlighted challenges to operating small business in rural communities and dealing with adversities. Rural communities can benefit from interventions that improve small businesspeople's mental wellbeing. Policymakers and communities can support rural small businesspeople's mental wellbeing with interventions that raise appreciation of the importance of their own mental wellbeing to the success of their business; improve mental health literacy and self-help skills; help build capacities to connect in their personal and professional lives.

Locating a Good SPACE for suicide prevention updating a rural training program with evidence and lived experience (Open abstract)

Hazel Dalton

Dr Hazel Dalton PhD, BSc (Hons Class 1)

Senior Research Fellow or Rural Public Health (Health Services), Charles Sturt University

From 2016-2022, Hazel was Research Leader and Senior Research Fellow at the University of Newcastle's Centre for Rural and Remote Mental Health (CRRMH). She remains an Honorary Senior Lecturer with the University of Newcastle. She has managed research across innovation in health service provision (planning, co-design, evaluation, case studies), including integrated care; mental health promotion; collaborative approaches to community wellbeing; and rural suicide prevention. Dr Dalton has worked with primary health networks and local health services across health service evaluation, low-intensity mental health services, stepped care model co-design and evaluation, and regional mental health planning. She was a facilitator for the International Foundation for Integrated Care Australia (IFICA), a collaborative network aimed at advancing integrated care in Australia (2015-2021).

Hazel is interested in translation and communication of research and providing evidence to support programs and inform policy. She has extensive research experience across university and health sectors, with skills in conceptual modelling, and quantitative and qualitative research approaches.

hdalton@csu.edu.au

1. Dr Hazel Dalton, Charles Sturt University/ Senior Research Fellow (Rural Public Health) and University of Newcastle/Honorary Senior Research Fellow, hazel.dalton@newcastle.edu.au, Orange NSW 2800

OBJECTIVE The Good SPACE suicide prevention gatekeeper training program is evidence based and has been delivered to over 2000 participants in its various adaptations. It was designed to serve rural populations as a specific target group, since rates of suicide are higher in rural and remote areas. Whilst previous evaluations have demonstrated program efficacy, program improvement and keeping up to date with evidence and educational methods is needed. This project determined to revise both the content and the delivery of the

program to reflect current understandings of rural suicide and suicide prevention, effective adult education techniques and to respond to multiple sources of feedback. Setting Rural NSW.

PARTICIPANTS Participants were selected purposively for their lived experience of suicide and embodiment of the range of socio-economic characteristics identified in rural suicide data. A snowball approach was used to ensure suitable participants. Nine rural representatives with lived experiences of suicide, including five rural mental health experts participated. Design The project was informed by an Experience-Based Co-Design (EBCD) approach and conducted over two stages of knowledge acquisition and tailored program design. Co-design with two teams of lived-experience representatives ensured efficacy and respectfulness in an iterative process of evaluation.

RESULTS Analysis of National Coronial Information System (NCIS) data led to the development of archetypes and case scenarios. Thematic analysis of training feedback data revealed positive elements to be preserved and suggestions to incorporate. Academic literature review provided content and pedagogy recommendations. Co-design workshops and iterative evaluation generated further content and pedagogical revisions.

CONCLUSION The revised training package is pilot-ready, strongly focused on rural Australia and exchanges a didactic approach for an experiential teaching method integrating critical pedagogy and a strengths-based style.

POSTERS

"Rural youth: How can we improve mental health and substance use prevention?"

Julia Boyle

Julia is a PhD candidate at the Matilda Centre for Research in Mental Health and Substance Use at the University of Sydney. She has a Bachelor of Psychology (Hons) from the University of Sydney, and has worked as a research assistant for the Matilda Centre since 2018. Her PhD is titled Pathways to care, prevention and early intervention for youth mental health and substance use in rural, regional and remote areas. Julia has chosen this topic due to the health inequalities present in rural, regional and remote communities, and she also has an interest in mental health service accessibility, co-design, and implementation science. Julia's supervisory team includes Professor Maree Teesson, Associate Professor Cath Chapman, and Dr Marlee Bower. She has worked across a number of projects, including The Preventure study, investigating a teacher-led school-based substance use prevention program, and the CAP (Climate and Preventure) and CSC (Climate Schools Combined) studies, longitudinal school-based studies comparing evidence-based substance use prevention programs. Julia has also worked alongside the Matilda Centre's Youth Advisory Board, and the Long-COVID Australia Collaboration's Lived Experience Reference Group.

1. Ms Julia Boyle, University of Sydney, julia.boyle@sydney.edu.au, Matilda Centre, Camperdown NSW 2006
2. Prof Maree Teesson AC, maree.teesson@sydney.edu.au, Matilda Centre, Camperdown NSW 2006
3. Assoc Prof Cath Chapman, cath.chapman@sydney.edu.au, Matilda Centre, Camperdown NSW 2006
4. Dr Marlee Bower, marlee.bower@sydney.edu.au, Matilda Centre, Camperdown NSW 2006

BACKGROUND AND AIMS In Australia, young people are more likely than any other age group to experience symptoms of a mental illness or substance use disorder, but less likely to successfully seek help. Those living in rural areas experience disproportionately worse mental health outcomes, and they face additional barriers to accessing and engaging with mental health services. My PhD aims to address these issues by first understanding pathways and patterns of service use by rural youth, identifying the role of prevention and early intervention programs, and working alongside headspace to adapt existing program(s) for rural communities. The aim of my first study is to identify the prevalence of mental and substance use disorders among rural youth, to determine differing patterns of mental health and substance use service use in rural compared to urban areas, and to identify factors associated with accessing services.

METHODS Broadly, my research will take a mixed methods approach, including analysing data and engaging in co-design with key stakeholders. In my first study, I will analyse data from the National Study of Mental Health and Wellbeing, 2020-21. A total of 5,554 participants took part, and data from a subset of those aged 16-24 will be analysed using regression models.

EXPECTED OUTCOMES Broadly, my PhD project aims to improve headspace services in rural areas by introducing a tailored prevention/early intervention element. My first study will identify the prevalence of anxiety, affective and substance use disorders among young people in rural compared to urban areas and determine patterns of service use, including consultation, hospitalisation, digital technology, and self-management strategies, and factors associated with the use of each service type. The expected outcomes will inform an understanding the different experiences of young people in rural areas accessing care for mental health and substance use issues compared to young people in urban areas, which will inform later phases of my PhD.

CHALLENGES A challenge within my broader PhD project is to understand the varying issues faced by different rural communities. How can I best approach building ongoing relationships with communities in order to engage in co-design?

IMPLICATIONS This study has the potential to impact how headspace delivers services for young people in rural areas, including a consideration of prevention and early intervention programs.

Not Just Individual Experience but Collective Experience Using an Arts-based Participatory-informed method in Researching Suicidal Distress in Rural/Remote NSW

Charlotte Finlayson

Charlotte is an Accredited Mental Health Social Worker and PhD Candidate (University of Sydney) who lives and works on Wiradjuri country in Griffith, NSW. Charlotte's PhD topic uses participatory and visual methods to explore experiences of help-seeking for suicidal distress in Rural and Remote NSW. Charlotte's is conducting her PhD under the supervision of Dr. Emma Tseris, Associate Professor Margot Rawsthorne, and Dr. Sacha Jamieson-Kendall. She has an interest in approaches centering on lived experiences of suicide distress, activism and social justice.
Professionally, Charlotte also works as a Local Project Officer with the Peregrine Centre funded under the Rural Mental Health Partnership grant to promote research opportunities and education for the Rural Mental Health Workforce.

1. Mrs Charlotte Finlayson, University of Sydney, cgil1135@uni.sydney.edu.au, Griffith NSW 2680

BACKGROUND AND AIMS; The use of arts-based methods researching experiences of suicidal distress in rural and remote settings has several advantages including allowing participants to tell their story through a visual medium, empowering participants to tell their story in a public forum and the potential highlight not only individual lived experience but to develop a shared insight into collective experiences, contributing to system-change. This presentation will reflect on experiences from an Emerging Research study utilizing a Photovoice approach, a participatory and arts-informed method of data collection and analysis. Although this approach has been used to research suicide in studies overseas, as far as this author is aware, the method has not been used to research suicide in rural and/or remote NSW.

METHODS This presentation will draw on the author's personal experience of conducting a photovoice project to evaluate the use of this method in suicide research in rural/remote NSW as well as recent literature on arts-based methods and the importance of centering lived experiences in healthcare research.

RESULTS or EXPECTED OUTCOMES Given the novel methods being used and the exploratory nature of its use it is expected that this presentation will provide some preliminary evaluation of the use of this method in this context.

CHALLENGES Previous researchers who have used Photovoice have reflected on the time and resource-intensive nature of the approach both during the data collection and analysis phases. Debate continues regarding the best way to include and interpret visual data both generally and in healthcare research.

IMPLICATIONS or Conclusion (or TAKE-HOME MESSAGE) Arts-based approaches offer a novel way to gather rich data, empower participants and generate a collective experience that focuses on system change.

Analysis of interventions afforded to out-of-hospital Cardiac Arrest & Major Trauma patients in Rural NSW Is there a case for upskilling rural paramedics?

Thomas Groth

Tom is a clinician/student researcher, working as a registered paramedic in Cobar, NSW and is currently completing a Master of Philosophy. Tom holds bachelor's degrees in both science and paramedicine and received a Vice Chancellor's Leadership Award from the University of Tasmania. Tom began his career in healthcare at

NSW OTDS, retrieving musculoskeletal tissue from deceased donors for purposes of donation and research before moving into the field of rural paramedicine. Tom's experience in rural paramedicine and the associated healthcare inequities faced by rural people, informs his passion for research that bridges the gaps between rural and metropolitan healthcare services. His research focuses primarily on finding evidence to support upskilling rural paramedics in cardiac arrest to bring rural healthcare services in line with metropolitan services.

1. Mr Thomas Groth, University of Sydney, tgro8247@uni.sydney.edu.au, Cobar NSW 2835
2. A/Prof Georgina Luscombe, University of Sydney, georgina.luscombe@sydney.edu.au, Stuart Town NSW 2820
3. Dr Jason Bendall, NSW Ambulance, University of Newcastle, jason.bendall@health.nsw.gov.au, Callaghan NSW 2308
4. Professor Timothy Chen, University of Sydney, timothy.chen@sydney.edu.au, Camperdown NSW 2006

BACKGROUND & AIM There currently exists a disconnect between rural and metropolitan out-of-hospital (paramedic) services in NSW. Rural patients have reduced access to lifesaving drugs and clinical procedures due to a lack of specialist Intensive Care Paramedics (ICPs) with an advanced skill set in rural areas. This study aims to quantify healthcare inequities faced by rural out-of-hospital patients in the area of cardiac arrest.

METHODS The planned study will be a retrospective Electronic Medical Record (EMR) audit, utilising deidentified data from NSW Ambulance. Data collected for the study will most likely include all NSW Ambulance patients from 2015 - 2020 who present with cardiac arrest. Specific interventions analysed will include intravenous (IV) adrenaline in paediatric cardiac arrest, IV amiodarone in adult cardiac arrest, intraosseous (IO) cannulation in cardiac arrest. Data analyses will primarily aim to compare the rates at which the intervention was administered in its specific indication in both a rural setting and a metropolitan setting.

RESULTS or EXPECTED OUTCOMES The study is at the planning stage and thus has no outcomes at present. However, outcomes will include both the rates of out-of-hospital cardiac arrest (paediatric and adult) and the rates of the identified interventions in both rural and metropolitan areas. ICPs are seldom stationed in rural areas and interventions chosen for the study reflect those within the skill set of ICPs. Therefore, it is expected that the rates at which each intervention is administered will be significantly higher in metropolitan areas when compared to rural areas in NSW.

CHALLENGES As an early-stage Masters student, challenges include a lack of familiarity with the procedural elements of undertaking research such as ethical approval, data storage and their associated platforms. Furthermore, relying on time-poor stakeholders in the study for vital information can sometimes hinder progression forward. It seems that making decisions early and making communications both easily digestible and actionable aids in circumventing such obstacles.

IMPLICATIONS OR TAKE-HOME MESSAGE Findings of the study should indicate that rural patients have decreased access to life saving out-of-hospital interventions. It is hoped that the study will act as an impetus to policy changes within the NSW Ambulance Service, providing evidence for upskilling rural paramedics so they can offer lifesaving services similar to those already afforded to patients in metropolitan areas.

Murray-Darling Medical Schools Network Research Collaboration - working together to grow our rural medical workforce.

Brie Turner

Brie Turner is a Senior Research Officer in The University of Sydney School of Rural Health. Brie works on research in support of the Rural Health Multidisciplinary Training (RHMT) Program and Murray-Darling Medical Schools Network (MDMSN) initiatives both of which aim to improve the distribution of the medical workforce in rural and remote areas.

1. Dr Brie Turner, School of Rural Health, the University of Sydney on behalf of the Murray-Darling Medical Schools Network Research Collaboration, brie.turner@sydney.edu.au, Orange NSW 2800

BACKGROUND & AIMS Much of our understanding of the factors that contribute to attracting and maintaining a rural workforce comes from single-institution and cross-sectional studies. Whilst this work has contributed significantly to our current understanding, it is generally agreed that multi-institution and longitudinal studies are needed to determine the longer-term impacts of rural immersion on medical students' future practice location. Until recently, there were only a very small number of universities in Australian in which students could undertake the entirety of their medical degree rurally. Consequently, studies to date have focused on 'extended rural placement'. The Murray-Darling Medical Schools Network (MDMSN) is a recent Australian Government initiative to establish a network of rurally-based medical programs in the Murray-Darling Region. The MDMSN builds on the Government's existing Rural Health Multidisciplinary Training (RHMT) Program to allow students to study medicine wholly within a rural area. This presentation aims to describe the formation and progress of the MDMSN research collaboration.

METHODS The MDMSN research collaboration was initiated by the University of Sydney, who invited partner Universities - the University of New South Wales, Charles Sturt University in partnership with Western Sydney University, Monash University, and the University of Melbourne in partnership with La Trobe University â€“ to discuss and develop a combined research initiative. Specifically, a longitudinal, multi-university program of work to explore the effect of rurally-based medical school programs in the Murray-Darling region. Initially it has been agreed that administrative data will be collected from existing University datasets. Each University will distribute an 'Entry survey' to all first-year MDMSN students. The survey will collect demographic information as well as information regarding rural background, preferences, and future practice intention. Questions have been aligned with and adapted from the Medical Schools Outcomes Database (MSOD) survey, the Australian Bureau of Statistics (ABS), and from the literature. This information will be combined with graduate information from the Australian Health Practitioner Regulation Agency (AHPRA).

EXPECTED OUTCOMES Partner organisations self-nominated representatives, including a range of management and research focussed staff, who meet monthly via zoom. The collaboration will continue to design and conduct multi-site research addressing nationally relevant research questions regarding the student experience, rural student identity and destination of graduates.

IMPLICATIONS This incredibly diverse multi-institution collaborative team will work together to maximise the unique opportunity of the MDMSN program to develop an evidence base to inform and influence policy and practice to grow our rural medical workforce.