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### Western Alliance and the Annual Symposium

Since its establishment in 2014, Western Alliance has brought together health services and academic institutions to improve health outcomes for regional and rural populations across the western region of Victoria, through high-quality, collaborative health care, research, education and training. The Annual Symposium, held in a different regional city each year, showcases research undertaken within, by and about the region, and provides an opportunity for researchers, clinicians, policy makers and members of the community to network and collaborate on matters of significance in regional and rural health care.

For more information, visit [www.westernalliance.org.au](http://www.westernalliance.org.au).

This year's Symposium is proudly supported by:



### Federation University

Federation University offers both university and TAFE campuses in Ballarat, Berwick, Brisbane, Gippsland and the Wimmera, together with online technical and further education courses.

For more information, visit [www.federation.edu.au](http://www.federation.edu.au)



### Ballarat Health Services

Ballarat Health Services has been providing quality care for the Ballarat and Grampians region for more than 150 years and cares for patients and the community with a comprehensive range of general and specialist care.

For more information, visit [www.bhs.org.au](http://www.bhs.org.au)

### Venue for Symposium and networking events

Mercure Ballarat Hotel and Convention Centre, Main Road, Ballarat

# 2019 SYMPOSIUM

Towards a healthy rural and regional Victoria  
24 October 2019 | Ballarat, Victoria

## Western Alliance Sixth Annual Symposium

Lost in research translation, demystifying the  
approach from knowledge into action

## ACKNOWLEDGEMENTS

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The Symposium this year brings us to Ballarat, Victoria's largest inland city. Located on the Yarrowee River in the Central Highlands of Victoria, Ballarat is a fusion of art, culture, food, wine and attractions set in a beautiful iconic heritage backdrop. The Symposium provides an excellent reason to stay a bit longer and explore the regional delights of Ballarat. We are grateful to our member partners Federation University, Ballarat Health Services, The Western Victorian Primary Health Network (Ballarat) and St John of God Ballarat for their support in hosting the Western Alliance Symposium on their home turf.

Western Alliance would like to thank all keynote speakers, presenters, delegates, staff and volunteers for their enthusiasm and support in helping to make this event such an important and exciting part of our regional research landscape. The Annual Symposium has become a fixture on our regional calendar over the past six years and a welcome opportunity to showcase high-quality research, to encourage collaboration between health services and academic researchers, and to meet face-to-face with their colleagues from across the region and further afield.

In particular, we extend warm thanks to the following for their enthusiastic support:

Professor Chris Hutchison, Deputy Vice Chancellor Research, Federation University; Mercure Ballarat Hotel and Convention Centre; Symposium speakers and workshop facilitators, chairpersons and volunteers; Western Alliance's Administrative Officer, Ms Cassandra Hamilton; Professor Brendan Crotty, Interim Chair, Western Alliance's Board of Directors; Members of the Board and Research Translation Committee and the broader membership of Western Alliance.



*Professor Warren Payne*  
Executive Director, Western Alliance



*Mr Drew Aras*  
Executive Officer, Western Alliance

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# PROGRAM

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## Western Alliance Sixth Annual Symposium

Lost in research translation, demystifying the approach from knowledge into action

Thursday 24 October, 9:00 am to 4:00 pm

8:00 – 8:55 am	<b>Registration</b>
9:00 am	<b>Welcome address</b>
Eureka Ballroom	MC Professor Brendan Crotty, Interim Board Chair, Western Alliance Tammy Gilson Wadawurrung traditional owner  Professor Warren Payne Executive Director, Western Alliance  Professor Christopher Hutchinson Deputy Vice Chancellor Research, Federation University
9:30 am	<b>KEYNOTE Wisser Health Care and a societal approach to low back pain</b> Professor Rachelle Buchbinder Monash University, Cabrini Health  <b>KEYNOTE Public deliberation, policy making and research practice</b> Professor Stacy Carter Australian Centre for Health Engagement, Evidence and Values, University of Wollongong  <b>KEYNOTE Care Consumer involvement in research: who, what, why and when?</b> Ms Anne McKenzie AM Telethon Kids Institute  Session Chair: Professor Warren Payne Western Alliance

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10:45 am  
Eureka Ballroom

**Morning tea**  
Catering by Mercure Ballarat Hotel and Convention Centre

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11:15 am

**Western Region Showcase – concurrent oral presentations**

	<b>Session One</b> Clinical research innovations	<b>Session Two</b> Population health and health services research innovations
<b>Room</b>	Eureka Ballroom	Conservatory
<b>Session Chair</b>	Ms Barbara Moll South West Healthcare	Professor Fergal Grace Federation University
	<p><b>Mrs Catherine Williams</b> Barwon Health</p> <p><i>Prehabilitation in Cancer Care - a pilot program for cancer patients at Barwon Health</i></p> <p><b>A/Professor Mark Yates</b> Ballarat Innovation and Research Collaboration for Health ( BIRCH)</p> <p><i>Changes in Antipsychotic and Benzodiazepine Prescribing Behaviour Results from the Dementia Care in Hospitals Program (DCHP)</i></p> <p><b>Ms Robyn McNeil</b> Murdoch Children’s Research Institute (MCRI)</p> <p><i>Thinking Ahead: Translation of research into an education, vocation and employment resource to support young people with cancer</i></p> <p><b>Mrs Philippa Pearce</b> Ballarat Health Services</p> <p><i>Implementation of an Advanced Practice Physiotherapy Vestibular Assessment Clinic within ENT Specialist Clinics</i></p>	<p><b>Dr Jacqueline Cotton</b> National Centre for Farmer Health</p> <p><i>What’s getting in the way? Enablers and barriers to workforce development in Agricultural Health and Medicine</i></p> <p><b>Mr Kyle Miller</b> Federation University Australia</p> <p><i>Exercise as a Treatment for Clinical Depression among Older Adults: A Network Meta-Analysis</i></p> <p><b>Dr Renee Clapham</b> Ballarat Health Services</p> <p><i>Nudging night-shift workers towards healthier choices – beliefs, confidence and support for making healthy dietary choices at work</i></p> <p><b>Dr Renee Clapham</b> Ballarat Health Services</p> <p><i>Identifying research priorities to optimize allied health care – informed by consumers: a modified Delphi study</i></p>

**Mrs Megan Battersby**

Barwon Health

*Nutrition Prescription Chart: a multidisciplinary approach for the safe practice of charting specialised nutritional products*

**Mrs Lea Marshall**

Grampians Integrated Cancer Service

*Partnering with older people with cancer in the Wimmera to understand and improve their supportive care needs*

**Dr Laura Alston**

GLOBE, Colac Area Health

*Profiling malnutrition risk among rural in-patients using the PG-SGA through a retrospective audit.*

**Ms Jaclyn Bishop**

Ballarat Health Services

*Translating national guidelines into practice: a telehealth cardiology pharmacist clinic to enhance care for regionally based cardiac patients*

**Ms Jaclyn Bishop**

Ballarat Health Services

*A novel 'bundle of care' approach to cellulitis management in Western Victorian hospitals (CELL-IT)*

**Dr Johnathan Rawstorn**

IPAN - Deakin University

*Mind the Gap! Challenges translating cardiac telerehabilitation research into practice.*

**Mrs Bianca Worboyes**

Ballarat Health Service

*Can I check your understanding? Implementation of Teach-back to improve health literacy for clients engaged in community rehabilitation*

**Ms Jessica Beattie**

Deakin University

*How is rural intention aligning with rural outcomes: Longitudinal tracking of Deakin University's medical graduates' work locations*

**A/Professor Anna Wong Shee**

Ballarat Health Services

*Does research training change allied health clinicians' knowledge and attitudes to evidence-based practice and provision of evidence-based care?*

**A/Professor Andrew Stranieri**

Federation University

*Why do so few digital health innovations disrupt practice? : an iterative technological, business and clinical use-case analysis*

**Ms Jane Jacobs**

Deakin University

*Walkability and green-space surrounding primary schools is associated with children's active-transport but not weight status in regional Victoria.*

**A/Professor Danny Hills**

Federation University

*Workplace aggression experiences of Victorian nurses and midwives in non-metropolitan settings*

**Dr Olivia King**

Barwon Health

*Lost in translation, found though research innovation: Novel research methodologies to uncover the complexities of evidence-informed practice change*



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12:45 pm                      **Lunch**  
The Gallery Lounge       Catering by Mercure Ballarat Hotel and Convention Centre

1:00 pm                      **Lightning poster presentations**  
Eureka Ballroom           Meet the poster creator

Session Chair: A/Professor Anna Wong Shee  
Ballarat Health Services

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1:30 pm                      **Concurrent Workshop Sessions**

Workshop name	Research for Policy Impact: views from a gamekeeper turned poacher	Planning research to have an impact	Techniques for assessing how well digital health technologies translate into practice
Room	Eureka Ballroom	Conservatory	Victoria Room 2
Convened by	<b>A/Professor Martin Hensher</b> Associate Professor of Health System Financing and Organisation, Institute for Health Transformation and Deakin Health Economics, Deakin University	<b>Professor Alison Hutchinson</b> Alfred Deakin Professor and Chair in Nursing, Deakin University and Monash Health	<b>A/Professor Andrew Stranieri</b> Deputy Director, Centre for Informatics and Applied Optimisation, School of Science, Information Technology & Engineering, Federation University

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2:45 pm                      **Afternoon tea**  
Eureka Ballroom           Catering by Mercure Ballarat Hotel and Convention Centre

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## **FINAL PLENARY SESSION – Knowledge into action**

Eureka Ballroom

3:00 pm                      **KEYNOTE Translating research into evidence based healthcare**  
Dr Denise O'Connor  
Monash Department of Clinical Epidemiology, Cabrini Institute, School of Public Health and Preventative Medicine, Monash University

3:20 pm

Eureka Ballroom

### Panel discussion

Session Chair: Associate Professor Mark Yates

Executive Director, Ballarat Innovation & Research Collaboration for Health (BIRCH)

3:50 pm

### Closing address

Professor Brendan Crotty

Interim Chair, Western Alliance Board of Directors

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4:00 – 5:00 pm

### Networking event

*Billys Bar/Gallery Lounge, Mercure Ballarat Hotel and Convention Centre*

Drinks and refreshments provided

## Poster presentations

**Dr Laura Alston**  
Colac Area Health

Preventing Chronic Diseases in rural areas: A Rural Food Environment Assessment Study in the Colac Otway Shire

**Catherine Mazza & Sondita Mein**  
Deakin University

Depression Assist: protocol for a novel online program for family and friends of adults with major depressive disorder

**Ms Caroline Gibson**  
Ballarat Health Services

The Peri-Dementia Diagnostic Service (PoDDS): A study protocol for a nurse-enhanced primary care service

**Mrs Jessica Jebramek**  
Ballarat Health Services

The role of subtle to mild cognitive impairment in weighted risk factor analysis for delirium risk prediction

## SYMPOSIUM CONVENORS

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**Professor Warren Payne**  
**Executive Director, Western Alliance**

Professor Warren Payne has extensive experience in the tertiary sector and has researched and taught in a variety of exercise science and health promotion areas. Warren has written over 250 refereed publications, conference proceedings and major industry reports.

Warren's work with industry has resulted in significant changes to a range of industry groups, for which he has received a number of awards. Since 2003, he has been awarded grants for consultancy based research totaling over \$6 million for work in physical performance test development and health program evaluation.

Warren is a past chair of the Victoria University's Deputy Vice-Chancellor (Research) Committee and an executive member of the Universities

Australia Deputy Vice Chancellor (Research) Committee. He has been a board member and an advisor to a range of professional, industry, government and community organisations. In particular, he was a founding executive member of the Australian Association for Exercise and Sports Science. He has held numerous board positions with Sports Medicine Australia, resulting in him being awarded a Fellowship and President's Award by Sports Medicine Australia. Warren has also received a number of academic and industry awards and he has also established a range of commercial and academic links in countries such as China, Sri Lanka, the United States and the United Kingdom.

**Mr Drew Aras**  
**Executive Officer, Western Alliance**

Mr Drew Aras has extensive experience working within public health, commencing his career as a physiotherapist, working in Geelong, Melbourne, Sydney and the United Kingdom. Drew completed his Master of Public Health and has worked in health promotion and preventative health, health program and project management and extensively in health research and education.



## KEYNOTE SPEAKERS

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### Professor Rachelle Buchbinder

Department of Clinical Epidemiology, Monash University

Professor Rachelle Buchbinder is an Australian NHMRC Senior Principal Research Fellow. She has been the Director of the Monash Department of Clinical Epidemiology since its inception in 2001 and a Professor in the Monash University Department of Epidemiology and Preventative Medicine since 2007. Rachelle is a rheumatologist and clinical epidemiologist who combines clinical practice with research in a wide range of multidisciplinary projects relating to arthritis and musculoskeletal conditions.

Other roles include Coordinating Editor of Cochrane Musculoskeletal; Chair, Australian Rheumatology Association Database (ARAD) Management Committee; founding member and Chair Executive Committee, NHMRC Centre of Research Excellence for the Australia and New Zealand Musculoskeletal (ANZMUSC) Clinical Trials Network.

Most recently she chaired the steering group for The Lancet Low Back Pain Series, a series of three papers published in March 2018 that drew attention to the urgent need for action to reduce the current and projected disease burden from low back pain. In particular it outlined the epidemic of low value care for low back pain across the world and identified promising solutions.



### Professor Stacy Carter

Australian Centre for Health Engagement, Evidence and Values, University of Wollongong

Professor Stacy Carter is the Founding Director of the Australian Centre for Health Engagement, Evidence and Values (ACHEEV) at the University of Wollongong. ACHEEV's purpose is to make health-related decisions more inclusive and democratic, using innovative deliberative and values-based methods to address contested or controversial health issues.

Stacy's training is in public health and social science; she has extensive experience in qualitative and deliberative research methods and in public health ethics. She is a chief investigator in the NHMRC-funded collaboration Wiser Healthcare ([wiserhealthcare.org.au](http://wiserhealthcare.org.au)), and researches problems including overdiagnosis and overtreatment, screening, vaccine refusal, and artificial intelligence in healthcare



## Ms Anne McKenzie AM

Telethon Kids Institute

Ms Anne McKenzie joined Telethon Kids Institute in 2004 as the Consumer Advocate where she developed and implemented an internationally recognized joint program with the University of Western Australia's School of Population Health to increase consumer and community involvement in health research.

Anne is now the Manager of Community Engagement at Telethon Kids. She was previously Head of the Consumer and Community Health Research Network where she established a Strategic Framework and Program of Work for consumer and community involvement across the WA Health

Translation Network's partner organisations, including Telethon Kids.

Anne is a senior consumer representative for Consumers Health Forum of Australia and former Chair of Health Consumers Council WA. She currently serves on several key state and nation health committees.

Anne previously worked for WA Health where she established the role of Parent Advocate at Princess Margaret Hospital for Children. Anne was made an Honorary Life Member of the Health Consumers Council WA in 2012 in recognition of her outstanding service to the organization. In January 2015, she was appointed as a Member of the Order of Australia for significant service to community health through consumer advocacy roles and strategic policy research and development.



## Dr Denise O'Connor

Monash Department of Clinical Epidemiology, Cabrini Institute, School of Public Health and Preventative Medicine, Monash University

Dr Denise O'Connor is Senior Research Fellow and Deputy Director at Monash Department of Clinical Epidemiology, Cabrini Institute, School of Public Health and Preventive Medicine, Monash University.

She is Director of the Australasian Satellite of the Cochrane Collaboration Effective Practice and Organisation of Care (AusEPOC) Group, the group responsible for publishing Cochrane reviews of interventions to improve health care delivery and systems.

Denise's research is in health services, focusing on the design, delivery, uptake and impact of behaviour change interventions to translate knowledge from research into clinical practice and policy.

## ABSTRACTS

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Listed alphabetically, by the surname of the presenting author

### Chronic Diseases in rural areas: A Rural Food Environment Assessment Study in the Colac Otway Shire.

Alston, L,<sup>1,2</sup> Brown, E,<sup>1</sup> Versace, V,<sup>4</sup> Nichols, M,<sup>3</sup> Bolton, K,<sup>3</sup> Whelan, J,<sup>3</sup> Green, M,<sup>1</sup> Allender, S.<sup>3</sup>

1 Colac Area Health, 2 Deakin University, 3 The Global Obesity Centre, 4 Deakin Rural Health

**Presenting author:** Dr Laura Alston

**Aim:** Food environments are suggested as priority target for interventions to prevent chronic diseases in rural communities. Current government policy that mandates healthy food promotion and provision of nutrition information does not include non-franchise community outlets. Evidence is needed to understand the current state of food environments to inform policy.

The aim is to measure the food environment of the Colac Otway Shire.

**Methods:** We undertook a census of Colac Otway Shire food environment (restaurants, fast food and café's) using two validated food environment tools. This study used the 'Healthiness Rating Tool' (Moayyed et al, 2017) to rate the overall outlet and the Nutrition Environment Measures Survey (NEMs-R) (Glanz et al, 2007) to assess the internal retail environment. Two trained researchers (LA & EB) conducted the internal food environment ratings.

**Results:** Data was collected from a total of 105 outlets. Across the region every 1 in 8 food outlets was rated as 'healthy' by the healthiness rating tool. The majority of food outlets (73.0%) had a NEMs-R score in the middle range indicating a need for improvement in terms of the promotion of healthy food, pricing and nutrition information available to consumers. Healthy options made up an average of 7.3% of items available on local menus. There was a lower proportion of healthy food outlets (rated by both tools) in outer rural areas ( $p < 0.05$ ).

**Conclusion:** This census of a rural food environment showed that there is low access to healthy food, along with minimal promotion of healthy food and nutrition information across the Colac Otway Shire.

**Keywords:** food, environment, prevention

### Profiling malnutrition risk among rural in-patients using the PG-SGA through a retrospective audit.

Alston, L,<sup>1,2</sup> Green, M,<sup>2</sup> Bolton, K,<sup>1</sup> Versace, V,<sup>3</sup> Buccheri, A,<sup>2</sup> Widdicombe, K,<sup>2</sup> Cameron, K,<sup>4</sup> Nichols, M.<sup>1</sup>

1 Global Obesity Centre, 2 Colac Area Health, 3 Deakin Rural Health, 4 Department of Health and Human Services

**Presenting author:** Dr Laura Alston, Megan Green

**Aim:** Identifying malnutrition is a key nutritional challenge in the acute care setting, along with underutilisation of dietetic services and poor implementation of routine nutrition screening processes. This is the first study to use a retrospective audit guided by the Patient Generated Subjective Global Assessment (PG-SGA) tool to understand the level of malnutrition risk among rural patients.

**Methods:** A retrospective audit of adult patients admitted to a rural hospital setting was conducted by two clinical dietitians (July 2017-June 2018). The dietitians reviewed admission notes, recorded demographic characteristics and nutrition screening and dietetic interventions, and allocated malnutrition risk scores according to the PG-SGA.

**Results:** Preliminary analysis (n=277/ 711 admissions) showed 78% of patient record assessments indicated the patient required a dietetic intervention. Of these assessments 38% were classified as high risk and in need of intervention. Sixty patients out of the 277 were seen by dietitians of which 41 patients (68%) were assessed to be at risk. Trend analysis showed a significant association between the PGA-SGA scoring form the audit and the dietitian's documentation of malnutrition. Full results for the 12 month audit will be presented (n= 711).

**Conclusion:** This study used a validated bed-side screening tool to assess the prevalence of patients requiring intervention and showed a high risk among rural inpatients. Further research will explore how screening tools can be used to guide better identification of patients at risk through automated online screening of clinical notes.

**Keywords:** inpatients, malnutrition, rural

## **Nutrition Prescription Chart: a multidisciplinary approach for the safe practice of charting specialised nutritional products**

Battersby, M, McCormick, C, Durran, S, Gwini, SM.

Barwon Health

**Presenting author:** Megan Battersby

**Aim:** In Australia there is no standardised clinical practice for charting and documenting administration of enteral and oral nutritional products. With limited evidence and in accordance with the 'Knowledge-to-Action Framework', our team developed and implemented a Nutrition Prescription Chart (NPC). A study was conducted to determine effectiveness of, staff satisfaction and adherence to using a NPC in an inpatient setting.

**Methods:** The NPC was co-designed by a multidisciplinary team, led by a dietitian, nurse and pharmacist. It was implemented in a staged process across an inpatient subacute setting, with feedback sought and modifications made after the pilot. Following this pilot, a three-month trial was conducted at an acute tertiary hospital on wards with a high use of specialised nutritional products. Data collected pre- and post-implementation of the NPC were then compared. Incident report data was also reviewed to determine if there were any clinical incidents associated with use of the chart.

**Results:** A total of 42 pre-and 30 post-implementation surveys were completed. Satisfaction with the new documentation process increased post-implementation; 63% compared to 44% (p<0.05) previously. Approximately 70% of clinicians agreed the NPC was more efficient compared to previous practice. Clinicians' perception was that administration documentation significantly improved with the NPC compared to previous documentation practices (p<0.05). There was less perceived risk of error and no NPC-related nutritional incidents were reported. Additionally, an audit of 36 patient files revealed clinicians were largely adherent with chart completion, with 78% (n=1247) of prescribed orders correctly signed.

**Conclusion:** The NPC improves safety relating to the documentation of specialised nutritional products in the inpatient setting. It was associated with increased perception of efficiency whilst also improving documentation of both administration and non-administration, with no identified clinical safety issues. Staff satisfaction increased with the NPC compared to previous processes.

**Keywords:** safety, collaboration



## How is rural intention aligning with rural outcomes: Longitudinal tracking of Deakin University's medical graduates' work locations

Beattie, J, D'Souza, K, McLeod, J, Versace, V.

Deakin University

**Presenting author:** Jessica Beattie

**Aim:** Deakin University (DU) is one of 19 Australian Rural Clinical Schools and as such is committed to redressing the maldistribution of the Australian medical workforce by training future rural doctors through strategies such as selection policies that promote equity and rural training opportunities.

To determine what variables are associated with graduates' rural intention and subsequent geographic work locations.

**Methods:** Medical graduates are invited to complete an annual survey related to their geographic work location, rural background, current rural intention and if they have joined a vocational training program. Participants will be surveyed from postgraduate year 1 to 8.

**Results:** 187 graduates (2011-2018) have completed the survey (response rate 21%). 31.4% were from a rural background. Rural intent was associated with rural background ( $p < 0.001$ ), completing a Longitudinal Integrated Clerkship ( $p = 0.005$ ), at least one year of rural clinical training ( $p = 0.014$ ) and joining a General Practice training program ( $p = 0.002$ ). Graduates with a rural intent were more likely to undertake a rural intern year and subsequent rural PGY2/3 years compared to graduates with a metropolitan intent ( $p = 0.016$ , 0.02 and 0.046 respectively). Graduates who began their prevocational training in rural areas were more likely to stay rural for subsequent years ( $p = 0.001$ ).

**Conclusion:** DU selection policies and rural training pathways are showing positive trends towards graduate's working in rural locations but due to the relative infancy of the medical school and length of time required for doctors to complete vocational training a sustainable longitudinal tracking project has been developed to monitor these outcomes.

**Keywords:** workforce, medical training

## Depression Assist: protocol for a novel online program for family and friends of adults with major depressive disorder

Berk, L, Mein, S, Mazza, C.

Deakin University

**Presenting author:** Catherine Mazza, Sondita Mein

**Aim:** Caring for someone with major depressive disorder (MDD) doesn't come with instructions. Carers need advice to navigate this role and maintain wellbeing. In-person groups are effective but costly and inconvenient. Evidence-based online interventions are an accessible alternative, but few exist for carers of people with MDD. Depression Assist – an online training/support program – aims to fill this gap.

**Methods:** The content in Depression Assist is based on current research and an international Delphi consensus study ( $n = 79$ ) of expert clinicians, consumers and carers. We aim to assess whether Depression Assist is acceptable, useable and useful for carers of a person with MDD. A small sample ( $n = 20$ ) of carers will access Depression Assist for eight weeks. They can use the site at any time and from any Australian location with an internet connection. They will complete monthly feedback surveys and validated assessments of psychological distress, coping and quality of life.

**Results:** Responses to the open-ended questions in the feedback survey will be analysed according to Braun and Clarke's (2006) thematic approach with elements of grounded theory. We will use Charmaz' (2006) coding method to identify broad themes from these responses. Descriptive statistics and univariate tests will be used to explore participants' characteristics and outcome measures. Responses to closed-ended questions will be expressed as percentages. We will collect user engagement metrics to measure attrition.

**Conclusion:** The results of this feasibility study will guide the refinement of Depression Assist, to determine its feasibility, acceptability, and usefulness for carers of people with MDD. Additionally, we will assess whether this approach reduces burden and enhances wellbeing among carers who are often isolated from dedicated support services and resources.

**Keywords:** carers, depression, e-health

## A novel 'bundle of care' approach to cellulitis management in Western Victorian hospitals (CELL-IT)

Bishop, J,<sup>2</sup> Jones, M,<sup>2</sup> Summerhayes, K,<sup>3</sup> Farquharson, J,<sup>2</sup> Tucker, R,<sup>3</sup> Walters, D,<sup>4</sup> Smith, M,<sup>1</sup> Cowan, R,<sup>5</sup> Schulz, T,<sup>6</sup> Friedman, D,<sup>4</sup> Buising, K,<sup>2</sup> Wolff, A,<sup>1</sup> Kong, D.<sup>1</sup>

1 Ballarat Health Services, 2 Wimmera Health Care Group, 3 Colac Area Health, 4 Department of Health and Human Services, 5 National Centre for Antimicrobial Stewardship, 6 Barwon Health

**Presenting author:** Jacqueline Bishop

**Aim:** Data from the 2014-2016 National Antimicrobial Prescribing Survey (NAPS) showed that the rate of inappropriate antibiotic prescribing for cellulitis was higher in regional and remote hospitals (rural hospitals) compared to major-city hospitals (25.7% v 19.0%,  $p < 0.001$ ). This suggested that rural hospitals require support to translate the well-established treatment guidelines for cellulitis into practice.

**Methods:** This study involves the implementation of a co-designed cellulitis bundle of care across three hospitals in the Western District of Victoria. Outcome data (pre- and post-implementation) is being collected and analysed for patients with lower-limb cellulitis. This includes appropriateness of antibiotic prescribing (Day-1 and discharge), length of stay, 30-day readmission rates for lower-limb cellulitis, self-reported recurrence of lower-limb cellulitis and duration of antibiotic therapy.

**Results:** Baseline data collection to date suggest the average age of patients admitted to hospital for lower-limb cellulitis is 64 years (range 24-93), with 64% being male (39/61).

Antibiotic prescribing at Day-1 was inappropriate in 17% (12/70) of prescriptions reviewed, which was lower than the NAPS figure. Antibiotic prescribing at discharge was inappropriate in 20% (9/46) of prescriptions reviewed. The most common reason for classifying an antibiotic prescription as inappropriate was an inadequate dose.

Readmission for cellulitis within 30 days of discharge was 5.4% (3/55). A relapse of cellulitis within 30 days of discharge was self-reported in 21% of patients (8/39).

**Conclusion:** Preliminary data indicates that antibiotic prescribing for cellulitis can be improved, focusing on correct dosing. The co-designed lower-limb cellulitis bundle of care, education and a patient leaflet will be implemented in early 2020.

**Keywords:** cellulitis, antibiotic, bundle

## Translating national guidelines into practice: a telehealth cardiology pharmacist clinic to enhance care for regionally based cardiac patients

Bishop, J, Livori, A, Morrison, J, Dimond, R, Fitzpatrick, A, Robertson, C, Oqueli, E, Aldrich, R, Kong, D.

Ballarat Health Services

**Presenting author:** Jacqueline Bishop

**Aim:** Multidisciplinary management is recommended in Australian heart failure guidelines. A telehealth cardiology pharmacist clinic (TCPC) was established to translate this recommendation into practice and extend it to other cardiology patients. In this novel model, patients undergo a telehealth consultation with a pharmacist in the week prior to their cardiologist appointment. The consultation covers medication history, cardiac health and adherence assessment.

**Methods:** The impact of the TCPC on cardiology consultation efficiency, patient safety and patient healthcare experience were evaluated. Time spent by the cardiologist gathering medication information and number of consultations with medication uncertainties (missing cardiac-related drugs or doses) were recorded using a time in motion method (before and after). Patients were surveyed on medication confidence and service satisfaction following their TCPC appointment. The costs saved by utilising telehealth as the mode of delivery were calculated based on the distance they lived from the hospital.

**Results:** Analysis of 93 patient-cardiologist consultations indicated that the mean consultation length reduced by 4.3 minutes if a patient attended the TCPC (13.5min v 9.2min,  $p<0.001$ ). Cardiologists spent 26% less time gathering medication information ( $p<0.0001$ ). The accuracy of information improved, with medication uncertainties reduced from 61% to 3% when patients attended the TCPC ( $p<0.001$ ). All patients were satisfied with the consultation ( $n=100$ ) and 84% felt more confident to discuss their medicines with their cardiologist (81/96). There was 99% acceptance of telehealth as the mode of delivery (95/96). Compared to face-to-face consultations, telehealth avoided 12,435km, \$8,456 and 7.3 days in travel ( $n=226$ ).

**Conclusion:** This new model of care means that cardiologists spend less time gathering medication information and have greater certainty about the accuracy of the information. The TCPC is highly valued by patients and increases their confidence to discuss their medications with their specialist. Telehealth is an acceptable mode of delivery.

**Keywords:** pharmacist, telehealth, cardiac

## Nudging night-shift workers towards healthier choices – beliefs, confidence and support for making healthy dietary choices at work

Clapham, R,<sup>1,3</sup> Abraham, L,<sup>1</sup> Bonham, M,<sup>2</sup> Falconer, K,<sup>1</sup> McKinnon, S,<sup>1</sup> Noble, K,<sup>4</sup> Nunes, R,<sup>1</sup> Pegg, K,<sup>1</sup> Wong Shee1,A.<sup>3</sup>

1 Ballarat Health Services, 2 Monash University, 3 Deakin University, 4 Alfred Hospital

**Presenting author:** Dr Renee Clapham

**Aim:** Hospitals operate 24 hours a day, seven days a week. People working night shift have a high risk of obesity and diet-related chronic health conditions. Factors, such as unpredictable breaks and limited access to healthy options influence a person's dietary choices. This study aims to co-design strategies with staff to improve the dietary environment for hospital staff working night shift.

**Methods:** This is an exploratory mixed-methods design. Phase 1 of this project involved a baseline survey. Data collected included: demographic information; attitude and beliefs regarding the work dietary environment (visual analogue scale); food choice motives (not reported); and overall intake of fruit, vegetable and water (VicHealth Indicators Survey questions). Descriptive statistics, non-parametric tests and correlation coefficients were used to investigate relationship between food versus drink scales and differences by work setting (acute, subacute, emergency). Fruit, vegetable and water intake was compared to publicly available data (university-educated Victorians).

**Results:** Respondents (n=127) were mostly female (86%), nurses (95%), worked mixed/rotating night shift (70%) and many worked in the acute setting (55%). The attitude and belief scale had good internal reliability ( $\alpha = .81$ ). Average correlation between food/drink pairs was acceptable ( $\alpha = .74$ ). Median scores indicate staff value healthy dietary choices (scores over 35; possible range -50 'extremely untrue' to +50 'extremely true'). Belief and confidence making healthy choices was higher for drink than food. Emergency department respondents recorded lower median scores than the other locations for food items. Fruit, vegetable and water intake was similar to state data.

**Conclusion:** Healthy food and drink choices are important to night shift staff. Staff who work in the emergency area reported lower levels of belief and confidence to make health food choices compared to people who work in other health service locations.

**Keywords:** shift-work; nutrition; healthcare-workforce

## What's getting in the way? Enablers and barriers to workforce development in Agricultural Health and Medicine

Cotton, J, Adams, J, Brumby, S.

National Centre for Farmer Health

**Presenting author:** Dr Jacqueline Cotton

**Aim:** The lives of farmers, farm workers and their families are intertwined with their workplace. Despite higher workplace injury rates, earlier morbidity and mortality globally; few formal programs focus on agricultural health, wellbeing and safety. Developed by Deakin University and the NCFH, Agricultural Health and Medicine (HMF701) aims to increase rural professionals' cultural competence, improving the health outcomes of farming communities.

**Methods:** A mixed method approach was used to identify the extent to which past HMF701 students (2010 to 2018) utilise the Agricultural Health and Medicine unit content in their current occupations, and identify any barriers faced in implementing their learnings. Students (n=139) were invited via email to complete an online survey via Qualtrics. Following the survey, consenting students participated in a one-on-one phone interview. Interviews consisted of 5 open ended questions focusing on student experience and utilisation of course content in their profession.

**Results:** Forty-one students completed the survey; a response rate of 31% and 11 interviews were conducted. Nursing and farming were the most represented occupations. Cultural competence (understanding of agricultural communities) improved as a result of course completion. Of responders, 81% felt confident discussing agricultural health and medicine topics with their peers and community. Over 75% agreed their ability to diagnose, treat or prevent agricultural occupational illnesses or injuries had improved, with 42% reporting they use course content professionally at least weekly. However, half (51%) of respondents noted they had encountered barriers in implementing their learnings in their work or community.

**Conclusion:** Despite engaged graduates and the continued high mortality and morbidity rates within the agricultural industry, the importance placed on farmer health within and between agricultural and health

organisations remains inadequate and under recognised, with structural barriers reported as a factor restricting career development post completion of this highly valued course.

**Keywords:** education, farmer health

## The Peri-Dementia Diagnostic Service (PoDDS): A study protocol for a nurse-enhanced primary care service.

Gibson, C,<sup>1</sup> Yates, M.<sup>2</sup>

1 Ballarat Health Services, 2 Ballarat Innovation and Research Collaboration for Health (BIRCH)

**Presenting author:** Caroline Gibson

**Aim:** CDAMS is the public dementia diagnostic service in western Victoria. 70% of people with dementia live in the community with one-third of people with dementia particularly vulnerable as they live alone. During the CDAMS assessment people who are poorly connected with health and social services, including General Practice, are referred to PoDDS, a nurse-enhanced-service supporting people through the diagnostic process.

**Methods:** PoDDS will be developed using an iterative PDSA methodology. PoDDS is supported by an existing care coordination and support system, and funding model, as it sits within the Hospital Admission Risk Program (HARP), at Ballarat Health Services (BHS). PoDDS will work with the target group of clients as they are accepted into the CDAMS. PoDDS is a time-limited service with the PoDDS nurse providing person-centred care including education and psycho-social-health care planning for people in the adjustment period prior to, during, and after receiving the diagnosis of dementia.

**Results:** The feasibility and sustainability of PoDDS within current organisational resources and funding models will be measured by collecting data on number of patients using of the service, hours of contact per patient, funding generated. Patient experiences of the service and health outcomes will be measured using quality of life measures and qualitative interviews. CDAMS geriatrician, PoDDS nurse, General Practitioner and Practice Nurse experience of the service will be collected through interview. Patient hospital presentations and admissions will be collected and compared to pre PoDDS involvement. PoDDS processes and procedures will be evaluated against best-practice dementia care guidelines.

**Conclusion:** Include: an innovative model of community care supporting marginalised, vulnerable populations; increased identification, efficiency and effectiveness of care in the lead up to, during, and post dementia diagnosis; a person-centred care plan 'handed-over' to General Practitioner and Practice Nurse for on-going care; a reduction in fragmentation and barriers to care.

**Keywords:** dementia, diagnosis, support

## Workplace aggression experiences of Victorian nurses and midwives in non-metropolitan settings

Hills, D,<sup>1</sup> Hills, S,<sup>1</sup> Crawford, K,<sup>2</sup> Lam, L.<sup>1</sup>

1 Federation University, 2 Monash University

**Presenting author:** A/Professor Danny Hills

**Aim:** Workplace aggression remains an intractable feature of clinical practice across the health and care sectors. Drawing on the results of a large mixed methods study of workplace aggression experiences of Victorian nurses and midwives, this presentation aims to highlight differentiating factors for clinicians working in non-metropolitan settings, which have emerged from both the quantitative and qualitative findings of the study.

**Methods:** The Workplace Aggression Experiences of Victorian Nurses and Midwives study initially utilised a cross-sectional survey design. Over 1200 respondents reported on their exposure to aggression from external sources (patients, relatives/carers and others) and internal sources (co-workers), as well as their responses to aggression incidents. Exposure rates were then compared across Australian Standard Geographical Category (ASGC) classifications for respondents' main workplaces. Additionally, thematic analyses of free text comments from 623 respondents and the content from 29 in-depth interviews provided compelling accounts of the sources, impacts and consequences of aggression at work.

**Results:** There were differences in prevalence across the geographical classifications of main workplaces. Although not statistically significant, qualitative findings provided important insights. In regional and rural areas, raising 'unpleasant' workplace issues could cause much deeper problems, especially where people working for or associated with local health and care services know each other, and privacy could not be maintained. With few alternative employment options, only avoidance strategies can be used. Additionally, with restricted access to security and legal services in regional and rural services, the notions of 'risk', 'safety' and 'security' can be considerably more complex compared to metropolitan settings.

**Conclusion:** Workplace aggression in the health and care sectors is a major work health and safety, and public health concern, especially in non-metropolitan settings. More targeted and effectively operationalised legislation, policy, incentives and penalties are required to prevent or minimise the likelihood and consequences of this truly wicked problem.

**Keywords:** workplace, aggression, violence

## Walkability and green space surrounding primary schools is associated with children's active-transport but not weight status in regional Victoria

Jacobs, J, Crooks, N, Allender, S, Nichols, M.

Deakin University

**Presenting author:** Jane Jacobs

**Background:** The physical activity environment surrounding primary schools may have a significant impact on children's physical activity, active transport, and weight status and this may vary significantly by remoteness of location. Limited research on this topic has been conducted outside of metropolitan areas in Australia.

**Methods:** This was an exploratory study, with a cross-sectional ecological design. Baseline data from a large-scale systems-based obesity prevention intervention were used to assess measured weight status and self-reported physical activity behaviours. Data on physical activity environments surrounding schools were extracted from publicly available spatial data. Ordinary least squared regressions assessed associations between three aspects of the physical activity environment (walkability, green-space and recreational facilities) within a 1km walkable buffer of primary schools and weight status and physical activity behaviours in primary school children in a regional area of South-West Victoria.

**Results:** Twenty- three primary schools were included in the analysis, representing 1001 students. Significant associations were found between walkability score and students' use of active transport to and from school and between green space and students' use of active transport to and from school. No associations were found between any aspect of the school's physical activity environment and the mean standardised body mass index scores or proportion of students with overweight or obesity.

**Conclusion:** Higher walkability scores and greater number of green spaces within 1km of regional primary schools were found to increase active transport levels in students.

**Keywords:** physical-activity, childhood-obesity, built-environment

## Lost in translation, found through research innovation: Novel research methodologies to uncover the complexities of evidence-informed practice change

King, O,<sup>1,2,3</sup> Boyce, R.<sup>1,2,4</sup>

1 Barwon Health, 2 SouthWest Healthcare, 3 Monash Centre for Scholarship in Health Education, 4 University of Queensland

**Presenting author:** Dr Olivia King

**Aim:** Research capacity development (RCD) focuses on three areas: research consumption, research activity and the implementation of research into clinical practice. RCD strategies have historically focused on the former two areas with less activity and evidence guiding the latter. While supported by frameworks and a body of science, research implementation is fraught with challenges related to the complex healthcare context..

**Methods:** Implementation researchers have recently turned their attention to alternative paradigms (e.g. complexity science, sociology) to explore the challenges implicated in implementing evidence-informed practice changes. Some have beckoned implementation researchers to consider alternative theoretical lenses, research methodologies and methods to gain insight into this important yet problematic and poorly understood area of research.

The aim of this study is to present an overview of some of the alternative theoretical lenses through which implementation research can be viewed and several useful, yet rarely used research methods in the implementation science field.

**Results:** Novel research methods may offer insights into the contextual factors and mechanisms underpinning the success or failure of implementation endeavors. Methods gaining support among implementation scientists include longitudinal case studies and social network analyses. Realist evaluations and action research methods may also facilitate important insights into implementation in particular contexts and under certain circumstances. Yet another atypical method is the longitudinal audio diary. Data collected through this method could be analysed through different theoretical lenses and offer unique insights into clinician and researcher experiences of the challenges throughout the implementation journey and the mechanisms to help overcome these.

**Conclusion:** Clinicians, novice researchers and implementation scientists unfamiliar with alternative theoretical underpinnings, research methodologies and methods may be disinclined to consider such approaches. However through strategic collaboration with researchers and faculties experienced in these methodologies, unique insights into research implementation can be illuminated and the field enriched.

**Keywords:** innovation, methodology, complexity

## The role of subtle to mild cognitive impairment in weighted risk factor analysis for delirium risk prediction

Jebramek, J,<sup>1,2,3</sup> Skvarc, D,<sup>2</sup> Yates, M,<sup>2,3,4</sup> Byrne, L.<sup>2</sup>

1 Western Alliance, 2 Deakin University, 3 Ballarat Innovation Research Collaboration for health (BIRCH), 4 Ballarat Health Services

**Presenting author:** Jessica Jebramek

**Aim:** The aim of our study is to investigate delirium risk in elderly ( $\geq 65$  years of age) elective orthopaedic surgery patients, focusing particularly on subtle to very mild cognitive decline, in combination with other established risk factors for postoperative delirium.

**Methods:** Patient cognitive screens will be accessed retrospectively and re-scored to assess for subtle- to mild cognitive impairment.

Additionally, patient data on previously established risk factors will be collected. Knowing delirium as a formal diagnosis is poorly documented in hospital records, we will collect data with regards to delirium symptoms to determine the population who developed postoperative delirium (diagnosed and undiagnosed). Data collected will be utilised in the development of an algorithm for pre-operative prediction of postoperative delirium in hospital.

**Results:** None as yet.

**Conclusion:** None as yet.

**Keywords:** delirium, screening, cognition

## Partnering with older people with cancer in the Wimmera to understand and improve their supportive care needs

Marshall, L,<sup>1</sup> O’Kane, C,<sup>2</sup> Daffy, T.<sup>2</sup>

1 Grampians Integrated Cancer Services, 2 Wimmera Health Care Group

**Presenting author:** Lea Marshall

**Aim:** Older people with cancer are a large, diverse and growing group. Forty-eight percent of the Wimmera’s yearly diagnoses are in those aged 70 and over, compared to 45% in Victoria. The Wimmera Health Care Group (WHCG) cancer team aimed to address their needs with a nursing and allied health professional quality improvement project. Process, results and future implications are outlined.

**Methods:** Patients complete a self-assessment tool combining demographic questions, and validated cancer and geriatric screening tools. Results are recorded and discussed at two-weekly supportive care multidisciplinary meetings (SCMDM). Five tool fields provide an indicated functional status of 'fit', 'vulnerable' or 'frail' (IFS). The IFS, an international recommendation, helps guide discussion. Teleconference links in relevant external health providers ensuring a wide range of input. A supportive care plan is formulated and discussed with the patient and family. A designated team member implements agreed actions. Outcomes are reported at the next SCMDM.

**Results:** Eighty-one cases were discussed in the pilot. Indicated functional status demonstrates that 27.25% are 'fit', 56.25% are 'vulnerable' and 16.25% are 'frail'. Other data showed 63% were aged over 70, 59% took 5 or more daily medications, 31% had hypertension, 30% had memory problems and 21% had falls in the last 6 months. Continence problems were common, which was an unexpected finding. Referrals recommended were 136 of which 88 were accepted. SCMDM membership and referrals expand as more cancer, allied health and community needs are identified. Improvements occur via patient experience, team member surveys, and data interpretation.

**Conclusion:** Using patient experience has developed awareness of age-specific individual issues. This streamlines recommended care. The multidisciplinary meeting environment has also fostered improved relationships and respect between disciplines, developed understanding of relevant issues of those affected by cancer and led to quality improvements in the project.

**Keywords:** quality, collaboration, equity



## Thinking Ahead: Translation of research into an education, vocation and employment resource to support young people with cancer.

McNeil, R,<sup>1</sup> McCarthy, M,<sup>1,2</sup> Sawyer, S.<sup>1,2</sup>

1 Murdoch Children's Research Institute, 2 Royal Children's Hospital

**Presenting author:** Robyn McNeil

**Aim:** An Australian national study of adolescents and young adults (AYA) with cancer identified low rates of participation in education and employment, even 2 years after diagnosis.

The aim is to develop an evidence based resource for AYAs with cancer that focuses on education, employment and community support services with the goal of supporting their return to school, study or work.

**Methods:** An integrated knowledge translation process was used where researchers, service providers and knowledge users collaborated to develop content, design & mode of the tool. Stakeholders were professionals from health, community and education sectors and included young people with cancer and their families. Young people with cancer were included as project partners, and were integrally involved across the whole project process.

The resource was implemented using an implementation and dissemination strategy developed by project partners aimed to leverage off existing networks and established partnerships into cancer and education support services.

**Results:** The output was the development of an evidence-based, consumer-informed resource to assist AYAs with education & vocation decision making following cancer diagnosis.

The resource is available online, and at the suggestion of the Youth Cancer Advisory Board (YCAB), an initial print run was also made.

Stakeholder partners' demonstrated 'ownership' of the resource by hosting the resource online, widespread promotion and dissemination; the commitment to update content, and to fund future print runs.

Preliminary evaluation data indicates a modest online uptake and a large demand for a hard copy of the resource. Initial feedback indicates the resource is 'highly valuable'.

**Conclusion:** This co-designed resource is an important case study of the translation of research findings to clinical and psychosocial support resources for AYA with cancer.

**Keywords:** knowledge, translation, cancer

## Exercise as a Treatment for Clinical Depression among Older Adults: A Network Meta-Analysis

Miller, K,<sup>1</sup> Goncalves-Bradley, D,<sup>2</sup> Areeb, P,<sup>1</sup> Hennessy, D,<sup>1</sup> Mesagno, C,<sup>1</sup> Grace, F.<sup>1</sup>

1 Federation University, 2 University of Oxford

**Presenting author:** Kyle Miller

**Aim:** The prevalence of clinical depression is greatest in those over the age of 65 years. Although the moderating effects of physical exercise on depression are widely recognised and supported by randomised control trials (RCTs), the most effective mode of exercise on clinical depression in older adults is currently unknown.

**Methods:** The purpose of this review was to compare the effectiveness of aerobic, resistance, and mind-body exercise interventions for the treatment of depressive symptoms in older adults aged 65 and over with diagnosed clinical depression. We followed PRISMA-NMA guidelines and searched databases for eligible RCTs (inception – June 30th, 2018). RCTs were eligible if they included clinically depressed adults aged >65 years, implemented one or more exercise therapy arms using aerobic, resistance, or mind-body exercise, and assessed depressive symptoms at baseline and follow-up using a validated clinical questionnaire.

**Results:** A network meta-analysis was performed on 15 eligible RCTs comprising 596 participants (321 treatment and 275 controls). Compared with controls, mind-body exercise showed the largest improvement on depressive symptoms (SMD = 1.38, CI = -0.04, 2.72), followed by aerobic exercise (SMD = 1.02, CI = -0.18, 1.86), and resistance exercise (SMD = 0.92, CI = -0.03, 1.87). Notably, there were no statistically significant differences between the three exercise types.

**Conclusion:** In coalition with high levels of compliance, these data provide encouraging evidence for the antidepressant effect of either aerobic, resistance, or mind-body exercise as an adjunct to prescribed therapy for clinical depression in older populations.

**Keywords:** depression, exercise, meta-analysis

## Implementation of an Advanced Practice Physiotherapy Vestibular Assessment Clinic within ENT Specialist Clinics.

Pearce, P.

Ballarat Health Services

**Presenting author:** Phillipa Pearce

**Aim:** There was a 203% increase in the number of patients with dizziness/vestibular disorders referred to Ballarat Health Services (BHS) outpatient services between 2010-2015. Average wait time was 383 days for assessment in Ear, Nose and Throat (ENT) Specialist Clinics. Geographical separation of ENT and Allied Health Outpatient Clinics led to duplication of referrals, delays in diagnosis, treatment and rehabilitation.

**Methods:** A pilot study of a Physiotherapy advanced practice model of care for the assessment of patients with vestibular symptoms. Participants were patients referred to ENT department or Allied Health outpatient services who satisfied the PVAC inclusion criteria. Participants underwent an audiology assessment and comprehensive vestibular Physiotherapy assessment. Discussion with ENT medical staff occurred as indicated. Data was collected from medical records for all participants and included: referral patterns, waiting times, provisional diagnoses, need for further investigation/specialist review and time to commence rehabilitation. Surveys were used to collect Patient experience data.

**Results:** 54 patients attended the clinic which was run fortnightly from October 2016 until September 2017. The average wait time for patients versus referral to the ENT department reduced from 383 days to 82 days. 5 patients required further investigation (CT/MRI) and 1 patient require ENT intervention (prescription of medication).

The patient satisfaction rating for the PVAC was high with an average of 9.89/10 rating for positive experience and 98% of patients reporting that they were "very satisfied" with their assessment in the clinic. Staff satisfaction ratings were also very high.

**Conclusion:** This clinic uses an important existing resource - Physiotherapists with advanced skills in managing vestibular disorders. It decreases the demand on more traditional and costly medical specialist clinics and provides more timely assessment and commencement of appropriate rehabilitation. The advanced practice model of care provides an accessible and sustainable service.

**Keywords:** advanced-practice, accessibility, physiotherapy

## Mind the Gap! Challenges translating cardiac telerehabilitation research into practice.

Rawstorn, J,<sup>1</sup> Cartledge, S,<sup>1</sup> Islam, S,<sup>1</sup> Wallen, M,<sup>2</sup> Grace, F,<sup>2</sup> Evans, L,<sup>3</sup> Amerena, J,<sup>4</sup> Maddison, R.<sup>1</sup>

1 Deakin University, 2 Federation University, 3 Ballarat Health Services, 4 Barwon Health

**Presenting author:** Dr Johnathon Rawstorn

**Aim:** Exercise is a key component of cardiac rehabilitation (CR) but access to traditional face-to-face services is a major participation barrier outside metropolitan areas. Use of emerging technologies to deliver real-time remote exercise supervision has proven to be effective and affordable in scientific trials, but processes required to successfully bridge the gap to clinical practice are unknown.

**Methods:** We are engaging CR healthcare consumers, professionals, and managers/executives in a 3-phase multisite implementation study to create and evaluate context-specific strategies that promote successful, scalable, sustainable translation of real-time cardiac telerehabilitation into clinical practice. Study phases include qualitatively identifying important factors that contribute to successful translation, co-designing a toolkit of actionable, context-specific strategies to guide translation initiatives, and testing the toolkit in a small pilot implementation study.

**Results:** Study phase 1 is in progress but key practical learnings about academic-clinical partnerships have already emerged. Alignment between academic objectives and clinical needs is not always a fast-track to success, communication is complex, and key translational issues may arise before the study designed to investigate them has even started.

**Conclusion:** Journeying across the translational gap is fraught with challenge but academic-clinical partnerships are essential to realise the potential impact of telerehabilitation on service access, delivery, and outcomes. Readiness for bilateral contribution seems important to turn 'collaboration' into 'partnership'.

**Keywords:** implementation science, telerehabilitation

## Why do so few digital health innovations disrupt practice? : An iterative technological, business and clinical use-case analysis

Stranieri, A, Balasubramanian, V.

Federation University

**Presenting author:** A/Professor Andrew Stranieri

**Aim:** A great deal of digital health research has not translated into practice to contribute to positive change. The aim of this study is to analyse digital health innovations that have not gone beyond research pilots and others that have changed health care practice so as to advance a model that can be used to guide new installations toward successful deployment.

**Methods:** A range of digital health projects that ranged from small pilot studies to large scale deployments were examined to identify critical success factors. The analysis led to the advancement of an explanatory model that was used to guide the development of a remote patient monitoring technology from research pilot to commercial application.

**Results:** The analysis of past ehealth projects revealed that successful projects integrated innovative but stable technology, entrepreneurial business analyses and clinical needs assessments. Successful deployments iteratively evolved use-cases by adjusting technological innovations, business cases and clinical deployments until a use-case emerged that led to practice improvement.

**Conclusion:** The iterative, technological, business and clinical use-case approach was applied to Internet of Things research project that and resulted in commercial deployments.

**Keywords:** digital health

## Prehabilitation in Cancer Care - a pilot program for cancer patients at Barwon Health.

Williams,C, King, O.

Barwon Health

**Presenting author:** Catherine Williams

**Aim:** Evidence suggests people who participate in prehabilitation prior to commencing cancer treatment have reduced treatment-related morbidity, improved treatment tolerance, outcomes and recovery. This 12-month pilot project funded by the Department of Health and Human Services aimed to establish, administer and evaluate the feasibility of a prehabilitation service for people diagnosed with multiple myeloma, colorectal or lung cancer at Barwon Health.

**Methods:** Participants were recruited from cancer or surgical services following their diagnosis, and referred to the prehabilitation pilot program. Consenting participants were assessed by the lead physiotherapist onsite before an individually tailored exercise prescription was developed. Participants completed their physiotherapist-supervised prehabilitation exercise program a minimum of twice a week until they commenced their primary cancer treatment. Physical, functional and patient-reported outcomes were recorded at baseline, completion of their prehabilitation program, and following completion of their cancer treatment. Admission data were compared to a retrospective cohort via file audit.

**Results:** Preliminary analysis of the feasibility data indicates promising outcomes in terms of referral and attendance rates. There have been 44 referrals into the program, with 28 participating. Reasons for non-participation include the timeframe to treatment being too short, the distance to access the service, work commitments, exercising enough already or not being interested. The 28 participants have booked 375 appointments, with an attendance rate of 93%. There have been no reported adverse events. Participant survey feedback has been positive. Formative evaluation will occur at the end of the pilot period in October 2019.

**Conclusion:** This pilot indicates that a prehabilitation service is feasible, acceptable and safe for people with a new diagnosis of cancer in our region. Formal participant feedback revealed that it was well tolerated, accessible and made a positive difference in their experience of a stressful and vulnerable period in their lives.

**Keywords:** prehabilitation, exercise, cancer

## Does research training change allied health clinicians' knowledge and attitudes to evidence-based practice and provision of evidence-based care?

Wong Shee, A,<sup>1,2</sup> Clapham, R,<sup>1,2</sup> Gardner, M,<sup>3</sup> Howlett, O,<sup>3,4</sup> Aras, D,<sup>5</sup> King, O,<sup>6</sup> Versace, V.<sup>2</sup>

1 Ballarat Health Services, 2 Deakin University, 3 Bendigo Health, 4 La Trobe University, 5 Western Alliance, 6 Barwon Health

**Presenting author:** A/Professor Anna Wong Shee

**Aim:** Patient outcomes improve with evidence-based practice (EBP). EBP is a problem-solving approach to clinical care that incorporates current best practice based on research, clinical expertise, and patient choice. The development of allied health clinicians' research skills is key to ensuring EBP and closing the evidence-practice gap. This study evaluates a research training program targeting rural and regional allied health clinicians.

**Methods:** A mixed-methods design was utilised to evaluate an allied health research training program that focused on research skill development to promote EBP. The 23-item Knowledge, Attitudes and Practice survey was used to measure four factors related to evidence-based practice (EBP): knowledge; attitudes about EBP; practice – information retrieval; and professional practice and learning. Semi-structured interviews were conducted with clinicians to explore their perceptions and experiences of the training program and conducting research. Survey data were analysed using descriptive analysis and repeated measures ANOVA. Interview data were analysed using thematic analysis.

**Results:** Thirty-one clinicians (female 84%; <40 years 74%) participated in the KAP survey. Participants' scores on knowledge (M=85.65, SD=7.37) were significantly higher than attitudes (M=81.89, SD=8.38), which were higher than both professional practice and learning (M=77.69, SD=7.94) and information retrieval (M=75.13, SD=10.06).

Preliminary interview data analysis indicates that participants (n=8) valued the skills and knowledge gained from the training program (e.g. database searching, structured approach to developing a research protocol). Participants frequently spoke about advantages conferred by the social nature of the program (e.g. networking with other clinician researchers, opportunities for peer learning and support) during the program and beyond.

**Conclusion:** This research training program has improved allied health clinicians' skills and knowledge in searching for evidence and development of a research protocol. Support to do research and the development of networks and collaborations is highly pertinent for allied health clinicians who face professional isolation across rural and regional Victoria.

**Keywords:** education, research, EBP

## Identifying research priorities to optimize allied health care – informed by consumers: a modified Delphi study

Wong Shee, A,<sup>1</sup> Clapham, R,<sup>1</sup> Aitken, J,<sup>3</sup> Donaldson, A,<sup>4</sup> Ananthapavan, J,<sup>2</sup> McNamara, K,<sup>2</sup> Uglade, A,<sup>2</sup> Versace, V.<sup>2</sup>

1 Ballarat Health Services, 2 Deakin University, 3 Rural Northwest Health, 4 LaTrobe University

**Presenting author:** Dr Renee Clapham

**Aim:** In health service research, it is vital that we address questions that are important to patients and that the research meets a health service need or gap in the evidence. This study brings together people from the community, clinicians and academic researchers to identify priorities for allied health research in the Grampians region.

**Methods:** Phase 1: Survey and focus groups will be used to elicit information about consumers' experiences of allied health care; their perceptions of service gaps, ways to optimize care, patient-centred care, and on how to prioritise competing health care issues; and areas for service improvement and further research.

Phase2: Using a modified Delphi method, a panel including community members, clinicians, health service managers, and researchers will firstly review information from phase 1, then generate additional ideas, and finally identify and agree on research priorities.

**Results:** Fifty respondents from rural communities have participated in the survey and three community forums have been conducted (n=12). Preliminary analysis of the focus group data identifies several health care issues in rural areas including: (1) access to quality care – availability and experience of specialists and other health providers, limited support services; (2) cost – cumulative costs for people with chronic conditions, urgent care fees in rural areas; (3) isolation – geographical (distance to services) and social (older populations); and (4) cultural factors – reluctance to seek help, fear of stigma, difficulty maintaining privacy and confidentiality in small communities.

**Conclusion:** Respondents have been passionate about a range of health issues in their communities. Future forums will focus on vulnerable groups, including indigenous people and people with disabilities. Health professionals are currently being recruited to have their say about health issues in their communities.

**Keywords:** health, rural, priorities

## Can I check your understanding? Implementation of Teach-back to improve health literacy for clients engaged in community rehabilitation

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1 Ballarat Health Service, 2 Deakin Rural Health, 3 The University of Melbourne

**Presenting authors:** Bianca Worboyes

**Aim:** The health system places a significant burden on clients to understand their health. Up to 80% of healthcare information is forgotten immediately and 50% of information recalled is incorrect. Teach-back, an evidence-based communication approach, involves clients explaining back in their own words what they have been told. This study evaluated the use of teach back in a regional health service.

**Methods:** This is a mixed methods study. All clinicians in the community rehabilitation service were invited to participate in evaluation of the teach-back process. We used a co-design process for implementing teach-back with participating clinicians via focus group(s). Intervention: All staff were exposed to teach-back training. Post-intervention: Teach-back was implemented by participating staff over a 6-month period. This abstract reports findings from a focus group held with participating clinicians on their perspectives of using teach back.

Results: Clinicians (n=8) identified that using teach-back:

- Reinforced and helped them reflect on own practice.
- Highlighted specific areas for which the client needed further explanation to support a 'take home' message.
- Written and printed information supported closing the loop of understanding
- Increased understanding by clients supported decreased anxiety.
- Clients that were more motivated in therapy gained more understanding of information.

**Conclusion:** Findings highlighted that experienced clinicians were already checking understanding as part of their practice although having the 5-step structure of teach back supported closing the loop of misunderstanding. Challenges included self-consciousness about asking clients to repeat back, added time, and working with clients who are cognitively impaired.

**Keywords:** teach-back, health literacy, understanding

## Changes in Antipsychotic and Benzodiazepine Prescribing Behaviour: Results from the Dementia Care in Hospitals Program (DCHP)

Yates, M,<sup>1</sup> Theobald, M,<sup>2</sup> Morvell, M,<sup>2</sup> Watts, JJ,<sup>3</sup> Bail, K,<sup>4</sup> Mohebbi, M,<sup>3</sup> MacDermott, ST,<sup>5</sup> Jebramek, JC,<sup>3</sup> Brodaty, H.<sup>6</sup>

1 Ballarat Innovation and Research Collaboration (BIRCH), 2 Ballarat Health Services, 3 Deakin University, 4 University of Canberra, 5 LaTrobe University, 6 University of New South Wales

**Presenting author:** A/Professor Mark Yates

**Aim:** The DCHP found that cognitive impairment occurred in 38% of older patients. These patients may experience distress that when disruptive or possibly dangerous to themselves or others leads to psychotropic prescription. In a US study of 17,775 patients 54% 65 and over were prescribed antipsychotics, 70% for BPSD. This study examines the impact of the DCHP on inpatient prescribing behaviour.

**Methods:** The DCHP is an all of hospital staff program to improve the awareness of and communication with patients with cognitive impairment (CI) and their families. It requires screening of all patient 65 and over for CI and if present have an alert, the Cognitive Impairment Identifier, placed over the bedside.

Four hospitals nationally participated, identifying 4,278 with CI of which 80 randomly selected medication records were reviewed.

All doses of antipsychotics and benzodiazepines given were recorded and dose equivalence calculated. Change in total dose and prescribing behaviour was compared.

**Results:** 35% of patients were prescribed either antipsychotics or benzodiazepines pre-intervention and 25% post intervention. The daily dose equivalent, PRN dosing and more than one of the same class dosing events declined for both medication groups post-intervention.

No conclusions related to causality can be made but this result is intriguing considering the DCHP did not specifically train clinicians in appropriate psychotropic prescribing. It is possible that better identification of patients with CI and the use of an over bedside alert facilitated the application of known appropriate prescribing behaviour.

**Conclusion:** This small study suggests the implementation of the DCHP was associated with positive change in antipsychotic and benzodiazepine prescribing behaviour.

**Keywords:** psychotropics, hospitals, delirium/dementia

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