3rd Annual NHMRC Research Translation Faculty Symposium

Achieving better health outcomes for Australians living with chronic conditions through more effective research translation

Wednesday 12 and Thursday 13 November 2014
Venue: Sofitel Melbourne on Collins
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It is with great pleasure that I welcome you to the 3rd annual NHMRC Research Translation Faculty Symposium – “Achieving better health outcomes for Australians living with chronic conditions through more effective research translation”, in Melbourne on 12-13 November, 2014.

Our previous Symposia have showcased Australia’s talent and creativity across the entire spectrum of research translation. This year, we seek to focus on how better translating the results of research can lead to improved health outcomes for Australians living with one or more chronic conditions. These conditions are placing an ever-increasing burden on the health care system, particularly in primary care, and the numbers are only going to increase as more of us live for longer. The challenges are multiplied when people live in rural or remote settings.

We also need to think more about how decision-making needs at the bedside can better inform innovative ideas that are pursued at the bench, and how teams of researchers from across the spectrum can collaborate dynamically and effectively to develop creative new solutions to some of these intransigent health problems.

The Research Translation Faculty is NHMRC’s forum to confront this translation challenge. Last year we asked the Faculty for ‘big ideas for action for big health challenges’ in each of the priority health areas in Australia. This is a very exciting time for the Faculty as it works on these big ideas, with a view to recommending the action that NHMRC can take to address the gap between research evidence and what is actually happening in practice and policy.

The Faculty is an opportunity for NHMRC’s researchers to engage with each other, and to inform the work of the office of NHMRC. I would like to thank all Faculty members who have been able to contribute so far, particularly those who have volunteered their time to participate in the Steering Groups who together are working hard to build cases for action.

I encourage all of those interested in the challenges and successes of research translation to take part in the Symposium. As always, the outcomes will feed into NHMRC’s consideration of how best to organise and fund research, and hence achieve the best results for Australians.

Professor Warwick Anderson AM
Chief Executive Officer, NHMRC

Professor Warwick Anderson is the Chief Executive Officer (CEO) of NHMRC, Australia’s major governmental funding body for health and medical research. Previously, he was Head of School of Biomedical Sciences at Monash University and Deputy Director of the Baker Medical Research Institute, following research fellowships at the University of Sydney and Harvard Medical School. Professor Anderson obtained his PhD from the University of Adelaide. His research has focused on renal causes of hypertension, including the roles of renal vascular remodeling, renal innervation and the renin-angiotensin system. He has published over 170 peer reviewed articles.

Professor Anderson is a Board member of the Global Alliance for Chronic Disease, a member of Heads of International (Biomedical) Research Organizations. He is an Honorary Fellow of the Royal College of Pathologists of Australasia and a Fellow of the Council for High Blood Pressure of the American Heart Foundation. He was made a Member of the Order of Australia in 2005.
## PROGRAMME OF EVENTS

### DAY 1 – WEDNESDAY 12 NOVEMBER 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>9.00 am</td>
<td>Opening session: Increasing value, reducing waste</td>
<td>Grand Ballroom</td>
<td>Prof Warwick Anderson AM</td>
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<tr>
<td>9.10 am</td>
<td>Welcome</td>
<td>Grand Ballroom</td>
<td>The Hon. Justice Annabelle Bennett AO</td>
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<tr>
<td>9.30 am</td>
<td>Opening address</td>
<td>Grand Ballroom</td>
<td>The Hon. Justice Annabelle Bennett AO</td>
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<tr>
<td>10.00 am</td>
<td>Reproducibility in medical research</td>
<td>Grand Ballroom</td>
<td>Dr Larry Tabak (via video link presentation)</td>
</tr>
<tr>
<td>10.15 am</td>
<td>What NHMRC is doing to increase value and reduce waste</td>
<td>Grand Ballroom</td>
<td>Prof Warwick Anderson AM</td>
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<tr>
<td>10.30 am</td>
<td>Morning tea and poster presentations</td>
<td>Grand Ballroom</td>
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<tr>
<td>11.00 am</td>
<td>Plenary 1: A systems approach to improving health outcomes in individuals with chronic conditions living in rural and remote settings</td>
<td>Grand Ballroom</td>
<td>Dr Christopher Davey (Chair)</td>
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<tr>
<td>11.00 am</td>
<td>Case For Action on Mental Health</td>
<td>Grand Ballroom</td>
<td>Dr Christopher Davey</td>
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<tr>
<td>11.10 am</td>
<td>A system-based national learning partnership for enhancing quality of primary health care for Aboriginal and Torres Strait Islander people</td>
<td>Sydney Room</td>
<td>Prof Ross Bailie</td>
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<tr>
<td>11.25 am</td>
<td>A systems approach to improving health outcomes in individuals with chronic conditions in rural and remote settings: a mixed bag of lessons from failure</td>
<td>Sydney Room</td>
<td>Prof Robyn McDermott</td>
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<tr>
<td>11.40 am</td>
<td>The Promise of Technology</td>
<td>Sydney Room</td>
<td>Prof Paddy Phillips</td>
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<tr>
<td>11.55 am</td>
<td>Polycystic ovary syndrome – Improving health for Indigenous women</td>
<td>Sydney Room</td>
<td>Dr Jacqueline Boyle</td>
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<tr>
<td>12.10 pm</td>
<td>Panel (all speakers)</td>
<td>Sydney Room</td>
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<td>12.30 pm</td>
<td>Lunch</td>
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<tr>
<td>1.30 pm</td>
<td>In from the beginning: Building knowledge translation into research proposals to increase uptake and impact (and funding success)</td>
<td>Perth Ballroom</td>
<td>Ms Jenny Brands</td>
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<tr>
<td>1.30 pm</td>
<td>The theory and practice of strategic translation research: How to make it happen</td>
<td>Perth Ballroom</td>
<td>Prof Claire Jackson</td>
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<td>1.30 pm</td>
<td>A research-practice partnership for improving the health of populations</td>
<td>Perth Ballroom</td>
<td>Dr Luke Wolfenden</td>
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<tr>
<td>1.30 pm</td>
<td>Can online systems help consumers make decisions and manage chronic health conditions?</td>
<td>Perth Ballroom</td>
<td>Dr Annie Law</td>
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<tr>
<td>1.30 pm</td>
<td>Parallel 1A: Translation in primary care</td>
<td>Perth Ballroom</td>
<td>Ms Jenny Brands</td>
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<tr>
<td>1.30 pm</td>
<td>Parallel 1B: Improving health systems</td>
<td>Perth Ballroom</td>
<td>Dr Luke Wolfenden</td>
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<td>2.00 pm</td>
<td>Workshop 1A</td>
<td>Perth Ballroom</td>
<td>Ms Jenny Brands</td>
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<tr>
<td>2.00 pm</td>
<td>Workshop 1B</td>
<td>Perth Ballroom</td>
<td>Dr Luke Wolfenden</td>
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<td>3.00 pm</td>
<td>In from the beginning: Building knowledge translation into research proposals to increase uptake and impact (and funding success)</td>
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<td>3.00 pm</td>
<td>The theory and practice of strategic translation research: How to make it happen</td>
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<td>Perth Ballroom</td>
<td>Ms Jenny Brands</td>
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<td>3.30 pm</td>
<td>Workshop 1B</td>
<td>Perth Ballroom</td>
<td>Dr Luke Wolfenden</td>
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3rd Annual NHMRC Research Translation Faculty Symposium: Achieving better health outcomes for Australians living with chronic conditions through more effective research translation
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<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter/Details</th>
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<tbody>
<tr>
<td>1.30pm</td>
<td>Workshop 1 / Parallel Session 1: Programme of Events</td>
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<tr>
<td></td>
<td>A national partnership developing systems approaches for chronic</td>
<td>Assoc Prof Sonia Wutzke</td>
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<td></td>
<td>disease prevention</td>
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<td></td>
<td>Assoc Prof Sonia Wutzke</td>
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<td>Patient-tailored reminders: An effective, pragmatic adherence</td>
<td>Assoc Prof Jack Chen</td>
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<td>intervention for primary care</td>
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<td></td>
<td>Dr Juliet Foster</td>
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<td>Integarting real-time routinely collected patient reported</td>
<td>Evidence Agent Academy: architecture for automated systematic review software</td>
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<td>outcome measures into patient care</td>
<td>Dr Guy Tsafnat</td>
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<td>Assoc Prof Jack Chen</td>
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<td>Continuous quality improvement: improving evidence-based</td>
<td>Assoc Prof Michael Nilsson</td>
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<td>pregnancy care for Indigenous women</td>
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<td></td>
<td>Ms Melanie Gibson-Helm</td>
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<td>Implementing e-mental health services</td>
<td>Dr Philip Batterham</td>
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<td>2.15pm</td>
<td>Effectiveness of an Aboriginal and Torres Strait Islander cultural</td>
<td>Dr Phyllis Lau</td>
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<td>respect program in general practice</td>
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<td>Protocol for a cluster randomised control trial</td>
<td>Assoc Prof Sally Bennett</td>
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<td>Assoc Prof Jack Chen</td>
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<td>Evidence Agent Academy: architecture for automated systematic review</td>
<td>Dr Guy Tsafnat</td>
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<td>Continuous quality improvement: improving evidence-based pregnancy</td>
<td>Assoc Prof Michael Nilsson</td>
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<td>care for Indigenous women</td>
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<td>Ms Melanie Gibson-Helm</td>
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<td></td>
<td>Translational research on insulin initiation in type 2 diabetes in</td>
<td>Assoc Prof John Furler</td>
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<td>general practice</td>
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<td>Assoc Prof John Furler</td>
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<tr>
<td>3.00pm</td>
<td>Afternoon tea and poster presentations</td>
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<td></td>
<td>Plenary 2: Alleviating the health burden in an ageing Australian</td>
<td>Assoc Prof Kaarin Anstey</td>
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<td>population</td>
<td>Grand Ballroom</td>
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<tr>
<td>3.30pm</td>
<td>Case For Action on Dementia</td>
<td>Prof Kaarin Anstey</td>
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<td>3.40pm</td>
<td>Clinical trials of prevention in the elderly: the ASPREE &amp; STAREE trials</td>
<td>Prof John McNeil</td>
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<td>3.55pm</td>
<td>Large scale data and research translation</td>
<td>Prof Emily Banks</td>
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<tr>
<td>4.10pm</td>
<td>Knowledge Translation in Ageing and Health: creating links between</td>
<td>Prof Julie Byles</td>
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<td>evidence and policy</td>
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<tr>
<td>4.25pm</td>
<td>Living longer in good health: prevention’s contribution to productive</td>
<td>Prof Andrew Wilson</td>
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<tr>
<td>4.40pm</td>
<td>Panel (all speakers)</td>
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<td>5.00pm</td>
<td>Close of day 1</td>
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<tr>
<td>5.30pm</td>
<td>Symposium Networking Reception</td>
<td>The Hon. Justice Annabelle Bennett AO</td>
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<tr>
<td>7.30pm</td>
<td>5.00pm Close of day 1</td>
<td>Sofitel Melbourne on Collins</td>
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<td>Symposum Networking Reception</td>
<td>Sofi’s Lounge</td>
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## DAY 2: THURSDAY 13 NOVEMBER 2014

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>9.00am</td>
<td>The Australian clinical trials alliance</td>
<td>Grand Ballroom</td>
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<tr>
<td></td>
<td>Prof John Simes</td>
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<tr>
<td>9.10am</td>
<td>Integrating genomics into clinical practice: a local and international perspective</td>
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<td></td>
<td>Prof Kathryn North</td>
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<tr>
<td>9.25am</td>
<td>Advanced imaging of brain networks translates to improved neurosurgery in epilepsy</td>
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<td></td>
<td>Prof Graeme Jackson</td>
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<tr>
<td>9.40am</td>
<td>Reducing bias in Research: What’s good for the human is good for the mouse</td>
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<td></td>
<td>Prof Lisa Bero</td>
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<tr>
<td>9.55am</td>
<td>The Commercialisation challenge – why it matters to every researcher</td>
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<td></td>
<td>Mr Doron Ben-Meir</td>
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<tr>
<td>10.10am</td>
<td>Panel (all speakers)</td>
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<td>10.30am</td>
<td>Morning tea and poster presentations</td>
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### Workshop 2 / Parallel 2

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>11.00am</td>
<td>Prevention of obesity has to start somewhere: evidence to practice in obesity</td>
<td>Perth Ballroom</td>
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<td></td>
<td>Dr Cate Lombard</td>
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<tr>
<td>11.45am</td>
<td>Who's afraid of the bush today? Venom allergy in Australia</td>
<td>Latrobe Ballroom</td>
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<td></td>
<td>Dr Ken Winkel</td>
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<td></td>
<td>Designing useful research for decision makers</td>
<td>Sydney Room</td>
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<td>Prof Nicholas Graves</td>
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<td></td>
<td>Pragmatic method to assess treated blood pressure from home blood pressure diaries - OPTIMAL study</td>
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<td></td>
<td>Prof Mark Nelson</td>
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<td></td>
<td>A call to action: Improving Australia’s health through research focused on How to implement what we already know</td>
<td>Brisbane Room</td>
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<td>Dr Fiona Cocker</td>
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<tr>
<td>11.45am</td>
<td>Evaluation of a program to improve health literacy</td>
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<td>Ms Joanne Luke</td>
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<td>ArtsHealth: Translating research for Indigenous communities</td>
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<td></td>
<td>Dr Kym Rae</td>
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<td>12.30am</td>
<td>A proposed minimum set of outcome metrics for coronary artery disease management from the International Consortium for Health Outcomes Measurement (ICHOM)</td>
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<td>Dr Rosanna Tavella</td>
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<tr>
<td>12.30am</td>
<td>An intervention to facilitate the implementation of obesity prevention policies and practices in childcare services</td>
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<td>Ms Jannah Jones</td>
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<tr>
<td>12.30am</td>
<td>Putting preventive guideline recommendations into general practice: An implementation trial</td>
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<td>Ms Sharon Parker</td>
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<tr>
<td>12.30am</td>
<td>Adoption of obesity prevention policies and practices by Australian primary schools: 2006 to 2013</td>
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<td>Ms Nicole Nathan</td>
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# Programme of Events

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>12:30pm</td>
<td>Lunch</td>
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<tr>
<td>1.30pm</td>
<td>Breaking the research to practice gap: Using the arts as a knowledge translation strategy Dr. Angela Dew</td>
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<tr>
<td>1.30pm</td>
<td>Digging for gold: Optimising registry datasets for research translation Dr. Cameron Knott</td>
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<tr>
<td>1.30pm</td>
<td>Improving bone health management after cancer Prof. Bogda Koczwara</td>
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<td>1.30pm</td>
<td>The Healthy Living after Cancer Partnership Project Prof. Elizabeth Eakin</td>
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<tr>
<td>1.30pm</td>
<td>A systematic approach to closing evidence gaps in cancer care Prof. Tim Shaw</td>
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<tr>
<td>2.15pm</td>
<td>Using a multi-disciplinary program of cancer care as a vehicle for more effective research translation Prof. Liz Begg</td>
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<tr>
<td>2.15pm</td>
<td>PRO-M-Care Project: Health systems supporting improved oncology care treatment and care Dr. Melissa Southey</td>
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<tr>
<td>2.15pm</td>
<td>A research translation intervention to increase uptake of low back pain treatment in general practice Dr. Denise O'Connor</td>
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<tr>
<td>3.00pm</td>
<td>Afternoon tea and poster presentations</td>
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<tr>
<td>3.30pm</td>
<td>PANEL: Making health care decisions when bombarded by too much information about disease history, personal details, and lifestyle choices. This panel discussion will be recorded for Big Ideas on ABC Radio National. The producer and facilitator will be Paul Barclay:</td>
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<td>Professor Ingrid Winship</td>
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<td>Associate Professor Lynda Travena</td>
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<td>Associate Professor John Fuller</td>
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<td>Ms. Karen Carey</td>
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<td>5.00pm</td>
<td>Close</td>
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ACKNOWLEDGEMENTS

Symposium Programme Committee
Prof Sally Green
Prof Helena Teede
Prof Louisa Jorm
Prof John Wakerman
Prof Peter Ebeling
Prof Paul Glasziou
Dr Ulysses Panisset
Prof Davina Ghersi

Symposium Abstract Committee
Consisted of Programme Committee plus:
Prof Mark Harris
Prof Ian Caterson
Prof Wendy Oddy
Mr Demos Krouskos
Dr David Abbott
Dr Wee-Ming Boon
Dr Fiona Leves
Ms Sam Faulkner
Justice Bennett practised as a barrister, later specialising in intellectual property. She was appointed to the Federal Court of Australia in May 2003 and as Senior Counsel in 1994. Justice Bennett is an additional Judge of the Supreme Court of the Australian Capital Territory, President of the Copyright Tribunal of Australia, and a Presidential Member of the Administrative Appeals Tribunal. Justice Bennett has been involved in a number of committees, including the Genetic Manipulation Advisory Committee, the Biotechnology Task Force and the Gene Patenting Advisory Committee of the Australian Law Reform Commission. She has also served as Pro-Chancellor of the Australian National University, Director of the Sydney Children’s Hospital Foundation, member of the Eastern Sydney Area Health Board, a Director of Neuroscience Research Australia and President of the Australian Academy of Forensic Sciences.
DAY 1 - OPENING SESSION

DAY 1 - WEDNESDAY 12TH NOVEMBER, 2014
OPENING SESSION

INCREASING VALUE, REDUCING WASTE

Speaker: Dr Lawrence Tabak
Reproducibility in medical research

Biography

Dr. Tabak is the principal deputy director of the National Institutes of Health (NIH). He previously served as the acting principal deputy director of NIH (2009), and as director of the National Institute of Dental and Craniofacial Research from 2000-10. Dr. Tabak has provided leadership for several trans-NIH activities, including the NIH Roadmap effort to support team science, the NIH Director’s initiative to enhance peer-review, and the NIH’s implementation of the American Recovery and Reinvestment Act. He co-chaired working groups of the Advisory Committee to the Director of NIH on the Diversity of the Biomedical Research Workforce and Information Technology and Informatics. Dr. Tabak is currently coordinating a trans-NIH effort to enhance the reproducibility of scientific findings.

Prior to joining NIH, Dr. Tabak was the senior associate dean for research and professor of dentistry and biochemistry & biophysics in the School of Medicine and Dentistry at the University of Rochester (NY). A former NIH MERIT recipient, Dr. Tabak’s major research focus is the structure, biosynthesis and function of glycoproteins. He continues work in this area, maintaining an active research laboratory within the NIH intramural program in addition to his administrative duties.

Dr. Tabak is an elected member the Institute of Medicine of the National Academies. He received his undergraduate degree from City College of New York, his D.D.S. from Columbia University, and a Ph.D. from the University of Buffalo.
DAY 1 - OPENING SESSION

Speaker: Professor Davina Ghersi

Increasing value and reducing waste by addressing accessibility

Biography

Davina joined the National Health and Medical Research Council as a Senior Principal Research Scientist in 2011 after 5 years as Team Leader with the Research Policy and Cooperation Department of the World Health Organization in Geneva, Switzerland. At NHMRC she provides methodological support across the agency on issues relating to the creation and translation of research evidence. Before this she led the Systematic Review and Health Care Assessment team at the NHMRC Clinical Trials Centre at the University of Sydney.

Davina’s academic interests are in publication bias, selective reporting, research transparency, systematic reviews and the translation of health and medical research into health care decision making and health policy. She holds an MPH and PhD from the University of Sydney and is Adjunct Professor at Sydney Medical School. Current chairing responsibilities include WHO’s Advisory Group on clinical trial registration and an OECD Working Group developing core competencies for clinical trials. She is a member of the PROSPERO Advisory Group, the Radiology Clinical Guidelines Taskforce of the Royal Australian and New Zealand College of Radiologists, the GRADE Working Group and the Editorial Board of PLOS Medicine, and has a long history of involvement with the Cochrane Collaboration.
PLENARY SESSION 1
A SYSTEMS APPROACH TO IMPROVING HEALTH OUTCOMES IN INDIVIDUALS WITH CHRONIC CONDITIONS LIVING IN RURAL AND REMOTE SETTINGS

Chair: Dr Christopher Davey

Christopher Davey is a consultant psychiatrist at Orygen Youth Health, where he leads the clinical and research program in youth depression. He leads a clinical team of psychiatrists, psychologists, and other allied health professionals in the Youth Mood Clinic, where together they assess and manage young people with severe mood disorders. His research interests include studying effective treatments for depression, and using neuroimaging to better understand depression and its treatment. Chris completed his medical degree at the University of Western Australia, and trained in psychiatry in Sydney and Melbourne. He completed a PhD at the University of Melbourne, and since then has obtained a number of fellowships and project grants, mainly from the NHMRC, to support his work.
PLENARY SESSION 1

Speaker 1: Professor Ross Bailie

A system-based national learning partnership for enhancing quality of primary health care for Aboriginal and Torres Strait Islander people

Biography

Ross Bailie trained in medicine and spent several years in clinical practice before completing a four year training programme in public health and subsequently taking up an academic career in public health. He has worked in South Africa, New Zealand and Australia. Ross’ work is strongly oriented to using a range of public health research methods to provide evidence for direct application to policy and planning for improved health. Ross is the Scientific Director of the National Centre for Quality Improvement in Indigenous Primary Health Care and leads the NHMRC funded ABCD National Research Partnership on quality improvement in Indigenous primary health care. He is also involved in research on food supply and environmental health and housing in Aboriginal communities.

Abstract

Wide-scale system-based primary health care research can make a substantial contribution to improving population health outcomes across the lifespan and for a wide range of priority conditions. This presentation will review the origins, conceptual base, evidence of impact, current status and future challenges of a national program of research that aims to enhance the quality of primary health care for Aboriginal and Torres Strait Islander people.
PLENARY SESSION 1

Speaker 2: Professor Robyn McDermott

A systems approach to improving health outcomes in individuals with chronic conditions in rural and remote settings: a mixed bag of lessons from failure

Biography
Robyn McDermott is a public health physician and currently Director of the Centre for Chronic Disease Prevention at James Cook University. She has worked extensively in rural Australia and the region as a clinician, health services manager and epidemiologist and, most recently, as pro Vice Chancellor for Health Sciences at the University of South Australia. Her research interests are the epidemiology of chronic disease, especially diabetes, and health system change to improve outcomes in people with early and established disease. She holds an NHMRC Practitioner Fellowship and several past and current NHMRC and other grants.

Abstract
People living in rural and remote Australia continue to have higher rates of avoidable mortality and hospitalisations from chronic conditions which are potentially amenable to improved Primary-level care; lower rates of Medicare utilization; and higher behavioural risk factors. This remote-urban gradient also exists among Indigenous people. Our previous work suggested that PHC systems improvement for managing chronic conditions could reduce avoidable complications, be highly cost-effective and be sustained over several years in remote high risk populations.

Commencing in 2011, we sought to improve intermediate clinical and self-reported health outcomes through a cluster RCT of intensive case management by specialist Indigenous health workers for adults with poorly managed diabetes and co-morbidities in primary health care settings in far north Queensland. While the trial was successful in achieving the target primary outcome measure (improved glycemic control over 18 months), implementation was compromised by major restructure and severe staff cuts in Queensland Health from 2012 which led to severe system paralysis.

Key policy lessons from this experience include the critical function of politically driven change, the fragility of some existing systems, local governance and clinical leadership, and the funding model. In summary, community controlled services achieved better implementation fidelity; government services suffered from indiscriminate staff cuts, leadership uncertainty and system inertia; and there appeared to be no relationship between care planning (GPMP and TCA claims), provider action and clinical change over the 18 month trial period. The business model for primary care management of complex chronic conditions needs better links with care quality, as the number of clients with these problems escalates nationally.
PLENARY SESSION 1

Speaker 3: Professor Paddy Phillips

The Promise of Technology

Biography

Professor Paddy Phillips is Chief Medical Officer for South Australia. He was previously Professor and Head of Medicine, Flinders University, Flinders Medical Centre and Repatriation General Hospital in Adelaide. He has also held senior clinical academic posts at the University of Melbourne followed by Oxford University and is Adjunct Professor of Medicine at Duke University, USA. His interests are building a better health system through innovation, collaboration and leadership. He remains clinically active in Acute General Medicine.

Abstract

In the 21st century, technology is everywhere. Australia is 6th in the world for smart phone use with ~65% of the population using a smartphone, in the context of over 30 million mobile phones used by Australians. Citywide Wifi is becoming the norm and there are over 12 million individual broadband subscriptions in Australia. But how are we using technology to improve health care? Biomedical, pharmaceutical and bioengineering advances are announced daily, but the use of information technology (IT) has lagged in health care, especially in hospitals. No other industry bases most of its primary transactions in its most capital intensive investments on paper, yet paper records are the norm in hospitals and aged care. When most health care providers use smart phones daily for personal use, and VoIP is as easy as a phone call, pagers still abound. While hairdressers remind us of our appointments by automated SMS, we still tolerate unacceptable “did not attend” rates for clinic appointments. Face to face interactions remain the norm for clinical interactions even for rural and remote patients, despite us using Skype or Facetime to keep in touch with loved ones over long distances. Hospital clinical audits remain rudimentary because of the labour involved in extracting data from paper records, despite sophisticated administrative and financial IT systems that give real time information to managers for non-clinical purposes. Even though electronic health records (EHRs) have almost universal coverage in primary health care, this does not apply to specialists, hospitals or aged care, and EHRs remain disconnected from each other the way banking ATMs were last century. This is despite the flow of clinical information between providers being acknowledged as fundamental to optimal clinical care. Despite these conundrums there are pockets of IT innovation using teleconferencing, the internet, and other technology to improve clinical care. It is time to use what we know works in IT from other industries and from the existing successful trials in health.
Speaker 4: Dr Jacqueline Boyle

Polycystic ovary syndrome – Improving health for Indigenous women

Biography

Jacqueline is an NHMRC research fellow and is the Head of the Indigenous and Refugee Women’s Health research group at Monash Centre for Health Research and Implementation, School of Public Health and Preventive Medicine, Monash University. As an obstetrician with a Masters of Public Health and a PhD, she also provides clinical services in women's health in Melbourne and in remote communities in the Northern Territory through the specialist outreach service. Jacqueline is the Chair of the Indigenous Women's health committee at the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and a co-lead on the National Indigenous Women's Health partnership on research and translation. She is a member of the NHMRC translation faculty “Healthy Start to Life” group. Her research involves the generation of new knowledge with translation and implementation particularly in preventive health and health service, particularly for Aboriginal and Torres Strait Islander women and refugee women. The work being done in PCOS will be presented here as an exemplar of this research to action cycle.

Abstract

Polycystic ovary syndrome (PCOS) is a complex common and chronic health condition affecting around 15% of Australian women of reproductive age and up to 21% of Indigenous women. The proportion of women affected increases with obesity with nearly one in three Indigenous women affected with a BMI greater than 30 kg/m2. It causes menstrual abnormalities, infertility and affects psychological well-being as well as increasing the risk of insulin resistance, diabetes and dyslipidaemia. Early diagnosis with screening for complications and prevention of weight gain are vital for optimizing health for women with PCOS. National guidelines for the diagnosis and management of PCOS were developed in 2010 to facilitate evidence based clinical management and the translation and implementation of these guidelines particularly in the context of Improving health for Indigenous women will be discussed.
Brands, Jenny¹, Silburn, K²

¹Menzies School of Health Research, Brisbane, Australia  
²La Trobe University, Melbourne, Australia

Background
Funders of research, including the NHMRC, are increasingly assessing grant applications against criteria for potential impact and likely translation of findings into practice – as well as scientific rigour. Applicants are encouraged to include activities and budgets for knowledge translation in proposals. However, such activities are often limited to communication about research findings after the project ends, rather than incorporating activity throughout the project that may increase the potential for research translation. This interactive workshop will dissect real-life case studies to illustrate principles and techniques for successfully building knowledge translation into fundable grant applications, and designing research projects that really make a difference.

Objectives
1. Enable participants to:
   • Identify key principles of knowledge translation
   • Apply knowledge translation principles and techniques in the design of research projects
   • Be inspired to design of projects that will really make an impact
2. Increase capacity within Australia’s health and medical research community to create the greatest potential for translating research into practice.

Target group/audience
Researchers with limited knowledge of or experience in knowledge translation, who want to increase the uptake and impact of their work
Researchers who want to increase their chances of receiving funding.

Workshop description/methods
This workshop will use case studies (primarily with a chronic disease focus) to unpack some of the key principles that can help increase the likelihood of research bringing about better health care and improved health or wellbeing outcomes. Participants will discuss each case study and identify how the principles have been applied within the research design, and the specific techniques or methods used. There will also be opportunity to discuss participants’ own project ideas.
IMPLEMENTING E-MENTAL HEALTH SERVICES

Batterham, Phil1, Kay-Lambkin, F2, Sunderland, M2, Calear, A1

1Centre for Mental Health Research, The Australian National University, Canberra, Australia
2National Drug and Alcohol Research Centre, The University of New South Wales, Sydney, Australia

Background

There have been rapid developments in online platforms for the identification, prevention and treatment of mental health problems, with e-mental health services shown to be highly effective, efficient and cost-effective. However, health care providers have been resistant to utilising e-mental health systems in their practice. There is increasing momentum for greater integration of e-mental health services, so that specialists can focus on individuals with severe mental health problems.

Objectives

The workshop will describe the problems around the lack of integration of e-mental health services, barriers and enablers of implementation, possible solutions to integrating e-mental health programs, and methods to assess the impact of this translational strategy.

Target group/ audience

Researchers, service providers, government, NGOs

Workshop description

The workshop will provide information on the topic of the NHMRC Research Translation Faculty Mental Health Call for Action, currently being developed by the presenters.

Methods

The workshop will provide a summary of the evidence for the effectiveness of e-mental health programs, within the context of the current state of these services. Barriers and enablers to uptake of these services will be framed around the Australian Government’s e-mental health strategy, with identification of gaps in implementation. Proposed actions to address these gaps will be summarised, offering several models of e-mental health service provision. Frameworks for measuring the success of e-mental health implementation activities will be discussed, including the application of the RE-AIM (reach, efficacy/ effectiveness, adoption, implementation, and maintenance) framework to e-mental health.
WORKSHOP 1B

THE THEORY AND PRACTICE OF STRATEGIC TRANSLATION RESEARCH:
HOW TO MAKE IT HAPPEN

Jackson Claire¹, Crossland, L¹, Askew, D², Upham, S¹

¹CRE Centre for Research Excellence in Primary Health Care Microsystems, University of Queensland, Brisbane, Australia
²Southern Queensland Centre of Excellence in Aboriginal and Torres Strait Islander Primary Health Care (Inala Indigenous Health Service), Inala, Brisbane, Australia

Background
Since 2007, our research team works with end-users in partnerships that progress successful research initiatives into practice. Our Centre hosts the International Implementation Research Network in Primary Care and has produced a 2014 MJA supplement on Implementation Research. Our use of Normalisation Process Theory (NPT)¹ delivered 3 significant evidence into practice / policy outcomes benefiting Australians with chronic disease: (i) the ‘beacon model’ of complex diabetes care, piloted at Inala and used across Brisbane South, AMS’s and WA; (ii) the diabetic retinopathy screening model piloted across urban and rural primary care practices with screening rates of >90% now in adoption in additional sites; and (iii) the Primary Care Practice Improvement Tool (PC-PIT) adopted in >100 practices nationally in 2014 as part of QI programs.

Objectives
• Share research translation initiatives benefiting Australians with chronic disease.
• Describe NPT as a research translation methodology linking policy makers, researchers and end-users.
• Understand the adaption of the NPT framework in order to maximise current chronic disease research successful translation to practice.

Target group / audience
Researchers, clinicians, managers, policy makers.

Workshop description
Interactive workshop combining (i) researcher presentations on key learnings from 3 successful research translation studies and (ii) introduction to the NPT methodology. Discussion of the application of NPT to facilitate participants’ current research into practice.

Methods
Overview of NPT and application to research translation in the area of chronic disease. Presentation of 3 research environments and key learnings. Involvement of workshop participants in applying the methodology to their current research endeavors.
WORKSHOP 1 / PARALLEL SESSION 1

References


PARALLEL 1A
TRANSLATION IN PRIMARY CARE - CHAIR: PROF SALLY GREEN

A RESEARCH-PRACTICE PARTNERSHIP FOR IMPROVING THE HEALTH OF POPULATIONS

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\textsuperscript{2}Hunter New England Population Health, Newcastle, Australia

Background
Implementation of evidence based guidelines, policies or programs into clinical and community settings is a cornerstone of effective public health efforts to prevent chronic disease. Over the past two decades, a partnership between Hunter New England Health, a government funded health service serving approximately 850,000 residents of a geographically and socially diverse region of NSW, and researchers of the University of Newcastle formed a unit to develop and test innovative strategies to increase the translation of population health evidence into practice.

Objectives
The aim of this presentation is to describe the implementation strategies employed by the partnership to build capacity and infrastructure for population based translation research, highlight key learning’s and outcomes

Method
The research employs a case study approach. Key strategies to improve translation science capacity included executive support and endorsement for the partnership; alignment of research and practice priorities; targeted training of practitioners and policy makers in implementation science (e.g through enrollment in PhD’s); investment in research infrastructure; co-location; the development of strategic collaborations; and clear governance structures and partnership values.

Results
Over the past 20 years the partnership has grown to over 50 academics, PhD students, health promotion practitioners, dieticians, exercise physiologists, psychologists, teachers, and statisticians. The group has established expertise in the key modifiable risk factors for morbidity and mortality in Australia including smoking, nutrition, alcohol, physical activity, tobacco, falls and obesity. Collectively the group publishes over 50 manuscripts per year, and has received on average $2 million pa in nationally competitive grants funding for the past 5 years. Implementation research conducted by the group has led to significant changes to population health policy and practice in a variety of settings including hospitals, community health services, licensed premises, schools, childcare services and sporting clubs. Examples of such impact at a local, state and national level in obesity, alcohol, and tobacco will be presented.
A NATIONAL PARTNERSHIP DEVELOPING SYSTEMS APPROACHES FOR CHRONIC DISEASE PREVENTION

Wutzke, Sonia\textsuperscript{1,2}, Overs, M\textsuperscript{1}, Stephenson, J\textsuperscript{1}, Wilson, A\textsuperscript{1,3}

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\textsuperscript{2}The University of Western Sydney, Sydney, Australia
\textsuperscript{3}Menzies Centre for Health Policy, Sydney, Australia

Background
Internationally, there is increasing recognition that multi-level, multi-sector approaches are required for the effective and sustained prevention of complex chronic health conditions. The Australian Prevention Partnership Centre, established in July 2013, is researching and developing systems perspectives to prevent lifestyle-related chronic health problems. It includes 31 investigators from five states and territories and more than 20 universities, and government, non-government and private sector agencies.

Objectives
The Partnership Centre is supporting a program of research, knowledge synthesis and translation, and capacity building to develop an effective prevention system for Australia.

Method
The Centre’s collaborative approach:

- Recognises the need for \textit{systems methods}, which acknowledge the complex and interconnected environment in which chronic health problems occur rather than simple, linear, independent, quick fixes
- Is developing and applying methods to equally value and systematically capture \textit{practice knowledge} as well as \textit{research evidence}
- \textbf{Supports co-creation} whereby researchers and the users of research work together to develop questions, conduct the research, and interpret, disseminate and use findings
- \textbf{Focuses on translation} by embedding formal and informal learning and development to increase the understanding and use of systems approaches in the prevention workforce

Results
The Australian Prevention Partnership Centre presents a unique opportunity to develop and test new ways for researchers, policy makers and practitioners to work together to advance prevention, implementation and systems sciences. This model of interaction and the issues in operationalising it are being tested as much as the specific research projects.
PATIENT-TAILORED REMINDERS: AN EFFECTIVE, PRAGMATIC ADHERENCE INTERVENTION FOR PRIMARY CARE

Foster, Juliet\(^1\), Smith, L\(^2\), Usherwood, T\(^2\), Xuan, W\(^3\), Sawyer, SM\(^4\), Rand, CS\(^5\), Reddel, HK\(^1\)

\(^1\)Woolcock Institute of Medical Research, University of Sydney, Sydney, Australia  
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\(^3\)University of New South Wales, Sydney, Australia  
\(^4\)Centre for Adolescent Health, Royal Children’s Hospital Melbourne, Melbourne, Australia  
\(^5\)Johns Hopkins School of Medicine, Baltimore, USA

Background
Adherence with inhaled asthma preventer medications is very poor, and contributes to uncontrolled asthma and exacerbations. Pragmatic adherence interventions for primary care settings are lacking.

Objectives
To test the effectiveness of two brief GP-delivered interventions for improving adherence and asthma control.

Method
In a 6-month cluster randomized controlled trial, with GP as unit of cluster, we compared inhaler reminders and feedback (IRF) and/or personalized adherence discussions (PAD) with active usual care alone. GPs enrolled patients prescribed inhaled fluticasone/salmeterol, with a suboptimal Asthma Control Test (ACT ≤19). Inhaler monitors recorded adherence (covertly for non-IRF groups) and in IRF groups provided adherence feedback and twice-daily reminders for missed doses, patient-customisable by ringtone, ring time and on/off option. PAD GPs received adherence communication training. Outcomes collected at 0, 2, 4 and 6 months included ACT (primary outcome) and severe exacerbations. Intention-to-treat mixed model analysis incorporated cluster effect and repeated measures.

Results
43 GPs enrolled 143 patients with moderate-severe asthma (mean age 40.3 years±SD 15.2; ACT 14.6±3.8; fluticasone dose 718µg±470). Average adherence was markedly higher in IRF than non-IRF groups (73%±26% vs 46%±28%, p<0.0001), and was double that in non-IRF groups at 6 months (60%±38% vs 29%±33%, p<0.0001). Asthma control improved overall (mean change in ACT 4.5±4.9, p<0.0001), with no significant difference between groups (p=0.14), perhaps reflecting over-prescribing of fluticasone/salmeterol in Australia. Severe exacerbations were experienced by 11% IRF and 28% non-IRF patients (p=0.06). Inhaler reminders provide a strikingly effective and feasible strategy for improving asthma adherence in primary care.
CONTINUOUS QUALITY IMPROVEMENT: IMPROVING EVIDENCE-BASED PREGNANCY CARE FOR INDIGENOUS WOMEN

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²Robinson Institute, The University of Adelaide, Adelaide, Australia
³Menzies School of Health Research, Charles Darwin University, Brisbane, Australia

Background
Aboriginal and Torres Strait Islander (Indigenous) women are at greater risk of adverse pregnancy outcomes than non-Indigenous women. Evidence-based pregnancy care has a key role in identifying and addressing contributing risk factors such as diabetes, smoking and obesity and recognising when complications occur.

Objectives
To identify whether provision of evidence-based pregnancy care by primary health centres (PHC), serving predominantly Indigenous communities, increased after participation in a continuous quality improvement (CQI) initiative and whether improvements were associated with organisational systems.

Method
Maternal health records (n=2592) were audited at urban/regional and rural/remote PHC (n=76) participating in a CQI initiative, across five Australian states, 2007-2012. Regression analysis investigated associations between rates of pregnancy care measures and number of CQI cycles, and ratings of organisational systems. Many pregnancy care measures were investigated; screening for diabetes in pregnancy is given as an example.

Results
More women attending PHC with ≥1 completed CQI cycle received diabetes screening than women attending PHC yet to complete one cycle: no cycles=57%, one cycle= 64%, two=62%, three=64%, four=80% (p<0.05 after one, three or four cycles compared to no cycles). Positive associations were observed between diabetes screening rates and self-reported overall organisational systems (p=0.03), delivery system design (p=0.04), self-management support (p=0.04) and organisational influence/integration (p=0.01). An improved rating of information systems/decision support was associated with increased screening (p=0.02).

Conclusion
Participation in CQI activities focusing on organisational systems may improve the provision of evidence-based pregnancy care by PHC. These findings are routinely provided to participating PHC to inform future CQI activities.
WORKSHOP 1 / PARALLEL SESSION 1

EFFECTIVENESS OF AN ABORIGINAL AND TORRES STRAIT ISLANDER CULTURAL RESPECT PROGRAM IN GENERAL PRACTICE PROTOCOL FOR A CLUSTER RANDOMISED CONTROL TRIAL

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³GP Synergy, Sydney, Australia
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Background
Since the Closing the Gap (CTG) Statement of Intent was signed in March 2008, progress on closing the life expectancy gap between Aboriginal and Torres Strait Islander and non-Indigenous Australians has been slow. General practices must work together with the community to address this issue.

Following extensive exploration with the community, we have developed an implementation program ‘Ways of Thinking and Ways of Doing’ (WoTWoD) which uses a whole-of-practice clinical re-design process and care partnerships that focus on community development. It aims to assist general practices to embed cultural respect and provide culturally and clinically appropriate health care for Aboriginal and Torres Strait Islander people.

Objective
To conduct a randomized control trial (RCT) in Sydney and Melbourne to assess the effectiveness of WoTWoD.

Method
Working with Medicare Locals, 58 general practices will be recruited and randomised into intervention or control groups. All practices will conduct baseline medical audits and complete a cultural quotient instrument, and repeat in 12 months. For intervention practices, staff will be trained to implement WoTWoD, and cultural mentors from the community and/or community health sector will provide ongoing support. At 12 months, practice staff and patients will be interviewed. For control practices, WoTWoD will be implemented at the conclusion of the intervention phase.

Expected Outcomes
This RCT will provide robust evidence on the effectiveness of WoTWoD in improving culturally and clinically appropriate care. Lessons from engagement of the community, service providers and policymakers will guide more effective translation of evidence into practice and closing the gap.
TRANSLATIONAL RESEARCH ON INSULIN INITIATION IN TYPE 2 DIABETES IN GENERAL PRACTICE

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³Melbourne Medical School, the University of Melbourne, Parkville, Australia

Background

T3 translational research explores guidelines implementation in real-world practice. Our translational research program addresses “clinical inertia” (failure to intensify treatment despite hyperglycaemia) with particular reference to evidence-based intensification of diabetes therapy. This remains an issue in General Practice (GP) where the majority of people with T2D receive most of their diabetes care.

Objectives

To explore challenges and facilitators to implementing a T3 translational research program on insulin initiation and titration among people with T2D in GP.

Method

We undertook a series of studies on insulin initiation and titration in GP over the past 7 years including theory and qualitative work (Phase 1), a small feasibility and acceptability pilot (Phase 2), a large scale pilot (Phase 3), a pragmatic cluster randomised trial currently under way (Phase 4). We used mixed methods to explore practice level implementation issues, and reflective investigator discussions to explore broader research program sustainability factors.

Results

We highlight key facilitators and barriers at practice and research program levels, including

- Appropriate funding structures to build research capacity and secure long-term support for research staff;
- Building and maintaining transmural linkages between primary, secondary and tertiary care, institutions, and industry partners;
- Strategies to engage and support practitioners and participants.

Conclusions

Building effective and sustainable T3 translational research programs is critical for developing evidence-based policy that drives improved outcomes at a population level. Diverse sources of funding that supports extensive and sustained transmural collaboration as well as engagement with practitioners and patients in the field are crucial.
PARALLEL 1B
IMPROVING HEALTH SYSTEMS - CHAIR: PROF HELENA TEEDE

CAN ONLINE SYSTEMS HELP CONSUMERS MAKE DECISIONS AND MANAGE CHRONIC HEALTH CONDITIONS?

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Background
E-Health has great potential to improve consumers’ health. Yet their impact and how consumers (especially those with chronic conditions) use them is not readily known.

Objectives
To examine how consumers use a web-based personally controlled health management system (PCHMS) in their everyday settings. Conditions examined include asthma, breast cancer, mental wellbeing, influenza vaccination, sexual health, and in-vitro fertilisation (IVF).

Method
More than 2000 consumers were recruited to use the PCHMS in six online trials (i.e. 3 x randomised controlled trial (RCT), 2 x prospective cohort study, or 1 x usability study). They were encouraged to manage their chronic condition, uptake preventative health actions, or improve their health understanding and literacy.

Results
Significant efficacy was found across the RCTs, with important user acceptance insights across other settings:

- Influenza vaccination: >700 participants, with >100% difference in influenza vaccination (control: 4.9% vs. PCHMS: 11.6%) (P=.008).
- Sexual health: >300 young people, with ~100% difference in STI testing (control: 7.6% vs. PCHMS: 15.3%) (P=.017).
- Asthma: >300 people with asthma [RCT results pending].
- Mental wellbeing: established online community for 1985 participants with healthcare professionals for their wellbeing concerns.
- IVF: supported 14 women over 8 weeks to complete their IVF cycle.

A mobile version of the platform is now available. With development of new social networking features, future trials will examine whether online social network interventions can significantly decrease the body mass index of those who are overweight or obese.
INTERGRATING REAL-TIME ROUTINELY COLLECTED PATIENT REPORTED OUTCOME MEASURES INTO PATIENT CARE

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Background

Driven by patient-centered care and complexity of chronic conditions, there is a growing popularity in routinely collecting patient reported outcome measures (PROs) during the care process to better patient management and improve patient outcomes. However, the rationale, evidence-base of the exactly impact of such practice on various stakeholders are less clear and the appropriate approach should be taken to develop and assess such a system still needs deliberating.

Objectives

To review the current literature on the appropriate conceptual framework of how routine collection of electronic PROs could be integrated into the overall health information system in managing chronic conditions. To develop a checklist to assess the utility of different ePROs for its suitability to be used at a population level and make recommendation of suitable composite PROs if appropriate.

Method

We developed a six-method search strategy to systematic review literature on the different frameworks of using ePROs and its potential impact. We developed a checklist in order to assess the potential utility of ePRO for being used among patients with chronic conditions.

Results

Over 2000 different PROs had been used in different heath care settings. A checklist of criteria was developed including: 1) having an electronic platform but amendable to paper-pen format; 2) based on Item response theory (IRT) and computer adapted test (CAT); 3) comprehensiveness; 4) comparability; 5) established reliability (precision) and validity; 6) flexibility; 7) inclusiveness, and 8) low cost. The promise of PROMIS® system was discussed and the specific issues of its application in Australian setting elaborated.
EVIDENCE AGENT ACADEMY: ARCHITECTURE FOR AUTOMATED SYSTEMATIC REVIEW SOFTWARE

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Background
The process of producing high-quality evidence summaries is arduous and arguably unsustainable. New technologies aimed at reducing the time and efforts required to produce systematic reviews have so far not provided the efficiency gains that would allow us to keep pace with evidence production, resulting in a substantial proportion of out-of-date reviews.

Objectives
To accelerate the way evidence is gathered, synthesized and delivered.

Method
AgentAcademy is an agent-based system in which systematic reviewers and clinicians can train generic software agents to answer specific clinical questions – producing high-quality evidence summaries at the push of a button. The agents are designed to replicate the following tasks: (a) search; (b) appraise reports viz-a-viz inclusion criteria; (c) extraction and collate evidence; and (d) synthesize clinical evidence.

Results
We have designed and implemented the following tools used by AgentAcademy agents:

1. QuickClinical: a federated meta-search engine for collating evidence from multiple databases.
2. ESuRFr: a citation extraction and tracking tool capable of fetching full-text articles.
3. Doxieve: evidence appraisal tool that elucidates and applies rules to automatically screen trial reports.
4. PalmTree: an extraction tool that tabulates key evidence from clinical trial reports into machine-readable forms.
5. Crucible: inter-tool communication.

The AgentAcademy lets the user specify search queries, selection criteria, extraction terms and thus train a generic software agent to autonomously answer a clinical question using the latest evidence. AgentAcademy is expected to improve the systematic review endeavor by synthesizing and providing access to more evidence when it is needed to inform decisions.
A HISTORY OF EFFECTIVE RESEARCH TRANSLATION: THE EXPERIENCE OF HMRI

Nilsson, Michael¹, Webb, Brad¹

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Background

Translational research as a term is not clearly defined. The core principles of translational research include and foster the multidirectional integration of basic science, patient-oriented research and population-based research, with a long-term aim of improving public health. The term might also involve commercialisation of research outcomes.

Since 1998, HMRI’s pioneering partnership between the community, the University of Newcastle and Hunter New England Local Health District has brought together scientists, clinician researchers and public health researchers to deliver key health and medical advances closely aligned to community health needs.

HMRI has progressively refined its model of translational research to focus not only on health outcomes, but also on delivering economic and commercial benefit to the region.

The model’s circular structure captures the dynamic interplay inherent in translational research. It integrates the view that research constitutes a continuing bidirectional cycle, emphasising that new knowledge and hypotheses potentially can be generated in each part.

Using a series of real-life case studies in stroke, asthma, melanoma, prostate cancer, physical activity and nutrition, HMRI will demonstrate how this model for translational research has delivered significant health benefits to the community.

These case studies will feature the development of new treatments, innovative applications of existing treatment and unique approaches to health prevention.

The presentation will also highlight HMRI’s current and emerging initiatives for the continued evolution of its model. These include greater connectivity with primary care and industry, the development of new measures of research translation and improved governance models to facilitate deeper levels of integration.
BUILDING CAPACITY FOR KNOWLEDGE TRANSLATION IN OCCUPATIONAL THERAPY

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Background
Knowledge translation (KT) is a systematic and iterative approach to help implement research in clinical practice, in order to improve health care. The Princess Alexandra Hospital Occupational Therapy Department (PAHOT) have made substantial efforts to locate, appraise and implement research evidence into their clinical practice, however attitudinal, knowledge and resource barriers remain. Very little research exists about organisational initiatives designed to build KT capacity amongst clinicians in order to close research-practice gaps.

Objectives
To evaluate organisational initiatives for KT capacity building with occupational therapists to facilitate closure of research-practice gaps in rehabilitation including patients with chronic conditions such as stroke, cardiac disease, and frail aged at risk of falls.

Method
This study used a Participatory Action Research (PAR) design focused on KT activities. A range of strategies were used to target identified barriers to KT, including training in KT, mentoring, leadership and organisational strategies. Fifty occupational therapists completed a pre-post questionnaire based on the Theoretical Domains Framework.

Results
The baseline questionnaire found participants had positive attitudes towards KT, however 26% were not confident in their ability to identify research-practice gaps and 46% were unaware of strategies to support KT. Main barriers to KT included lack of time and knowledge for KT activities. Knowledge translation processes used by therapists in stroke rehabilitation, cardiac disease, and the frail aged at risk of falls will be described. A multifaceted organisational initiative may support KT by enhancing the knowledge, skills and reported behaviours of occupational therapists, ultimately leading to improved patient outcomes.
IMPROVING MEDICATION MANAGEMENT WHEN FASTING OR NIL BY MOUTH

To, The-Phung\textsuperscript{1}, Story, DA\textsuperscript{2}, Nielsen, F\textsuperscript{3}, Heland, M\textsuperscript{3}, Bruce, P\textsuperscript{4}, D’Alterio C\textsuperscript{4}, Hardidge, A\textsuperscript{5}

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**Background**

Inappropriate management of medications when patients are *fasting* or *nil by mouth* can affect patient safety and lead to adverse patient outcomes. Systems solutions, including simplification and standardisation have been recommended to improve safety in complex areas such as medication safety.

**Objectives**

To improve the management of medications when patients are *fasting* or *nil by mouth*.

**Method**

An implementation process that simplified and standardised medication administration instructions and included the use of decision aids, reminders, clinical champions, opinion leaders and audit/feedback was rolled-out on a surgical ward. Interventions focussed on distinguishing *fasting* from *nil by mouth* with respect to medication administration. All medications should be given unless advised when a patient is *fasting* whereas nothing is to be given orally if *nil by mouth*. Decision aids/reminders were colour-coded using the traffic light system (i.e. red/don’t give, amber/check before giving, green/give) to aid association.

Data on inappropriate medication omissions were collected from approximately 20 preoperative non-elective orthopaedic surgery patients, per month, eight months pre- and post-intervention and 15 months during the implementation period. Logistic regression was used to compare the proportions and odds of inappropriate medication omission pre-intervention, during and post-intervention.

**Results**

Inappropriate medication omissions decreased from 33\% (95\% CI 28\% – 38\%) pre-intervention to 9\% (95\% CI 6\% – 12\%, OR 0.18, 95\% CI 0.13 – 0.27, p<0.0001) post-intervention. There was also a decrease in patients with one or more inappropriate omissions (67\% [95\% CI 59\% – 74\%] pre-intervention versus 28\% [95\% CI 21\% – 36\%], OR 0.20, 95\% CI 0.12 – 0.32, p<0.0001, post-intervention).
PLENARY SESSION 2

ALLEVIATING THE HEALTH BURDEN IN AN AGEING AUSTRALIAN POPULATION

Chair: Prof Kaarin Anstey

Kaarin Anstey is Director of the Centre for Research on Ageing, Health and Wellbeing and Director of the Dementia Collaborative Research Centre, Early Diagnosis and Prevention. She is also an NHMRC Senior Research Fellow and an Adjunct Professor at the Pennsylvania State University. Her substantive research interests include the epidemiology of cognition and dementia, late-life depression, and wellbeing. Kaarin is also working on population-based interventions to reduce the risk of cognitive decline and dementia and promote healthy ageing. She conducts research on older driver safety and the impact of driving cessation. Kaarin is a Director of the Alzheimer’s Australia Dementia Research Foundation, a member of the NHMRC Knowledge Translation Faculty, Dementia Steering Group, and a member of the NHMRC Guidelines Adaptation Committee for Dealing with Cognitive and Related Functional Decline in Older People.

Kaarin has advised the Human Rights Commission, the NSW Government and NRMA on issues related to older drivers. She has served on the ACT Ministerial Advisory Council on Ageing and advises on the ACT Strategic Plans on Ageing and the Older Persons’ Assembly. She is a member of the Committee on Safe Mobility of Older Persons of the United States Transport Research Board of the United States National Academies.
Speaker 1: Professor John McNeil

Clinical trials of prevention in the elderly: the ASPREE & STAREE trials

Biography

John McNeil has been the Head of the Monash University School of Public Health and Preventive Medicine based at the Alfred Hospital since 1986. His research background is in epidemiology & clinical pharmacology. He is a member of the Boards of the International Society of Cardiovascular Pharmacotherapy, the Victorian Managed Insurance Authority (VMIA) and Austin Health, Melbourne. He has been a member of various ministerial committees and is a member of the executive of the Monash Faculty of Medicine, Nursing & Health Sciences. In 2008 he was awarded an AM (Member of the Order of Australia) for services to Public Health. He is currently CIA of the NIH funded ASPREE Study, a large scale randomized clinical trial of low-dose aspirin in persons over 70 years of age. He has published over 350 refereed publications. He has also been instrumental in the development of large-scale clinical registries to improve the measurement and benchmarking of clinical outcomes.

Abstract

A remarkable decline in middle-age mortality over the last 50 years has seen an increasing proportion of Australians survive into their 70s, 80s and 90s. However one consequence of this longevity is that a much higher percentage will be exposed to the problems of mild cognitive impairment and dementia. In fact, beyond 85 yrs over half the population will be affected by one or other of these conditions. The focus of preventive medicine must now include strategies to delay cognitive and other forms of disability in order to allow independence to be maintained as long as possible in older people.

ASPREE is a large scale community based NIH funded trial involving over 16,500 Australians and 2500 US citizens. Its purpose is to determine whether low dose aspirin can prolong disability free survival. The high quality of the data being collected in association with this study will also allow other important questions relevant to prevention in the elderly to be addressed. It will also provide a resource for future studies of predictive biomarkers and early diagnostics of various diseases of aging.

STAREE is a follow-on study headed by A/Prof Sophia Zoungas. It is using similar methodology to determine whether statin therapy in the elderly will prolong disability-free survival. This question is highly relevant following recent US/UK guidelines which is likely to direct statin therapy for primary prevention to the elderly.
Speaker 2: Professor Emily Banks

Large scale data and research translation

Biography
Professor Emily Banks is a medically trained epidemiologist with interest and expertise in large scale cohort studies, pharmacoepidemiology, women’s health, Aboriginal Health and healthy ageing. She is currently the Scientific Director of the 45 and Up Study, Head of Chronic Disease Epidemiology at the National Centre for Epidemiology and Population Health and Chair of the Advisory Committee on the Safety of Medicines. The main emphasis of her work has been in using cohort study methodology to identify potentially modifiable factors affecting individual and population health in different settings and in quantifying their effects, to inform improvements in health and health care.

Abstract
The statistical reliability and applicability of evidence is central to its ability to positively influence policy and practice. This presentation will explore the utility of large scale data as a basis for research translation relevant to healthy ageing, with examples from the Million Women Study and the 45 and Up Study.
Speaker 3: Professor Julie Byles

**Knowledge Translation in Ageing and Health: creating links between evidence and policy**

**Biography**

Professor Julie Byles is Director of the Research Centre for Gender, Health and Ageing at the University of Newcastle, immediate past President of the Australian Association of Gerontology, and Secretary of the International Association of Gerontology and Geriatrics Asia/Oceania Region. She is a clinical epidemiologist and a gerontologist, interested in the role of health services in maintaining quality of life for older people, and in determining physical, psychological and social factors associated with ageing well. She led the Australian Department of Veterans’ Affairs preventive care trial, which informed the introduction of Medicare items for the 75+ Health Assessments. She leads the Australian Longitudinal Study on Women’s Health, which provides an evidence base to the Australian Department of Health for the development and evaluation of many areas of policy and practice that affect women as they age.

In recent years she has represented professional groups on the National Aged Care Alliance, contributing to the development, implementation, and proposed evaluation of aged care reforms. She has also worked with the World Health Organisation, assisting with compilation and translation of evidence on health and ageing for policy development in Ghana, China, and across the Western Pacific Region.

**Abstract**

As the world ages, governments need policies to promote healthy ageing and provide health care for older people. To meet this challenge, the World Health Organisation has been developing methods in knowledge translation that support stakeholders to use research evidence to facilitate development of effective policy responses to ageing. WHO have applied these methods in case studies to develop policy and actions for ageing and health in Ghana and in China. The challenge is to identify, present, interpret and apply relevant evidence to address local realities. The knowledge translation process in Ghana resulted in six country scale up plans that were taken to the national health summit. At this summit the Ghana Health Services agreed to incorporate these priorities into their next five-year program of work. The knowledge translation process allowed for engagement of a wide range of stakeholders, and provided a systematic and transparent approach to the appraisal, evaluation and use of evidence in decision-making. The case study in China is in progress.

These case studies provide concrete examples of how countries can be supported to use evidence in setting priorities and determining evidence-based responses to the health needs of ageing populations.
PLENARY SESSION 2

Speaker 4: Professor Andrew Wilson

Living longer in good health: prevention’s contribution to productive ageing

Biography
Professor Wilson is Director of the Menzies Centre for Health Policy at the University of Sydney. He leads the NHMRC Australian Prevention Partnership Centre. His research interests concern the application of epidemiology to informing decision making in clinical medicine, public health, and health service policy and planning. His specific areas of interest are chronic disease prevention and management. He has extensive experience in developing micro and macro level policies in public health and healthcare as Chief Health Officer and Deputy Director General Public Health, NSW Health (1997-2001), and, Deputy Director General Policy, Strategy and Resourcing, Queensland Health (2006-2010). He is a member of the Repatriation Medical Authority and Board member of the Sydney Catchment Authority, and the joint Board of the Agency for Clinical Innovation and the Clinical Excellence Commission. He chairs the Protocol Advisory Sub-Committee of the Medical Services Advisory Committee.

Abstract
The Australian population is experiencing an unprecedented increase in life expectancy. In the past 40 years this has substantially come from a reduction in cardiovascular disease mortality in adulthood. However during the same period the prevalence of chronic disease has increased partly due to the increased survivorship. Despite policy nihilism focused on the cost of health care associated with increased life expectancy, evidence is substantial that older years can be healthy productive years. Prevention including in later years of chronic disease and its complications has a significant role in achieving this.
PLENARY SESSION 3
DAY 2 - THURSDAY 13TH NOVEMBER, 2014
FROM THE BEDSIDE TO THE BENCH AND BACK

Chair: Prof John Simes
Professor John Simes is Senior Principal Research Fellow and Director of the NHMRC Clinical Trials Centre (CTC), University of Sydney. He is undertaking clinical trials research, with particular interest in clinical trials in cancer, cardiovascular disease, diabetes and neonatal medicine. His research interests include clinical trials methodology and integrating trial evidence with the goal of improving clinical practice and health outcomes. He is the Director of the Sydney Catalyst translational research centre, a virtual centre of cancer researchers in central Sydney and regional NSW. Additionally, he is a member of the Interim Executive that formed in 2012 to drive the development of the Australian Clinical Trials Alliance (ACTA). Professor John Simes practices as a medical oncologist in neuro-oncology at Royal Prince Alfred Hospital and the Chris O’Brien Lifehouse. He has been awarded the Cancer Achievement Award by the Medical Oncology Group of Australia and the Distinguished Harvard Alum Award (Biostatistics) from Harvard University. He is a member of several research committees, trials groups and boards, including cancer cooperative groups and safety and data monitoring committees.
PLENARY SESSION 3

Speaker 1: Professor Kathryn North

Integrating genomics into clinical practice: a local and international perspective

Biography

Kathryn North is trained as a paediatric physician, child neurologist and clinical geneticist. In 1994, she was awarded a doctorate from the University of Sydney for research into Neurogenetics. She completed a postdoctoral fellowship in the Harvard Genetics programme. Kathryn was appointed as Director of the Murdoch Childrens Research Institute, Director of the Victoria Clinical Genetics Service and the David Danks Professor of Child Health Research at the University of Melbourne in February 2013. Her previous positions include the Douglas Burrows Professor of Paediatrics, University of Sydney (2004-2012) and Head of the Institute for Neuroscience and Muscle Research (2000-2012).

Kathryn’s laboratory research interests focus on gene discovery and disease mechanism in inherited muscle disorders - particularly the muscular dystrophies and congenital myopathies – as well as genes which influence normal skeletal muscle function and elite athletic performance. Her clinical research focuses on clinical trials of therapies for muscular dystrophy and neurofibromatosis type 1 as well as the development of interventions for children with learning disabilities.

Kathryn is on the Executive of TREAT-NM (international consortium for neuromuscular disorders), is Chair of the Neurocognitive Committee of the International Neurofibromatosis Consortium and Vice Chair of the Global Alliance for Genomics and Health, an international consortium of more than 180 institutions promoting the sharing of genomic and clinical data. She is Chair of the National Health and Medical Research Council Research Committee and a Member of NHMRC Council. In 2012, Kathryn was awarded the Ramaciotti Medal for Excellence in Biomedical Research and the Member of the Order of Australia (AM) for service to medicine in the field of neuromuscular and neurogenetics research.

Abstract

Genomic technologies are proving transformative, but ensuring full clinical and research benefit from their application in clinical settings requires planning and collaboration. The Melbourne Genomics Health Alliance (MGHA) is a collaboration of 10 research and healthcare organisations, with the goal of integrating genomic information into everyday healthcare. MGHA are conducting a clinically-led, prospective project evaluating the feasibility of whole exome sequencing (WES) as a single, first tier assay for germline and somatic conditions. The Alliance members have developed common ethics and consent, a common clinical bioinformatics pipeline and share genomic data via a common clinical genomics data repository. Decision-making is guided by structured processes for clinician input and a Community Advisory Group. Researchers are also an integral part of advisory and working groups.

Mimicking usual clinical practice, patients with one of five diverse germline or somatic conditions are being offered whole exome sequencing in parallel to routine investigations. Sequence data is generated by multiple diagnostic laboratories, analysis is then targeted to genes known to be related to the clinical condition using a common analytic pipeline. Research results are returned to clinicians and data is available to researchers. Exome data is linked to clinical data and a consolidated electronic view provided to clinicians and researchers. The pilot phase is being evaluated to determine the barriers, feasibility, health economics and diagnostic value of genomic sequencing.

This systematic approach is designed to foster incremental change and future adoption, as well as ensure future implementation delivers a viable and sustainable system across multiple organisations. The Melbourne Genomics Health Alliance is also a member of the Global Alliance for Genomics and Health (GA4GH), an organisation of over 200 of the world’s leading biomedical research institutions, healthcare providers, information technology and life science companies, funders of research, and disease and patient advocacy organizations. The Global Alliance aims to accelerate the world-wide effort to responsibly aggregate, analyse and share large amounts of genomic and clinical information to advance the understanding, diagnosis, and treatment for cancer, inherited diseases, infectious diseases, and drug responses.
PLENARY SESSION 3

Speaker 2: Professor Graeme Jackson

Advanced imaging of brain networks translates to improved neurosurgery in epilepsy

Biography
Professor Graeme Jackson is a clinical neurologist and clinical researcher. He is recognized as an expert and authority in new MR technologies, particularly in the field of animal and human studies of epilepsy. He is the Deputy Director of the Florey Institute of Neuroscience & Mental Health. Graeme holds a number of other positions, both clinical and academic. He is a Professorial Fellow of the Department of Medicine, Austin Health, University of Melbourne. His major research achievement is his impact on the understanding of epilepsy. He is a world leader on the use of imaging technologies in neurological disease, and has combined these interests to advance the understanding of epilepsy and to identify lesions that allow surgical cure of epilepsy. He was awarded the prestigious NHMRC Excellence Award.

Abstract
Technology of imaging has advanced remarkably and the power of computing to analyse data generated by these advanced devices has given ever-increasing insights into brain structure and function. In the case of epilepsy the abnormalities that underpin the disease such as gene abnormalities or lesions in the brain are fixed but the disorder is paroxysmal. It is only by understanding whole brain function at the level of networks that one can understand how these fixed abnormalities create unstable networks generating the paroxysmal symptoms that are so disabling in epileptic seizures.

In particular, the techniques for understanding networks that come from the human connectome and connectomics methods using graph theory have allowed us to understand interaction between networks and how these networks are driven. In some cases there are critical nodes that allow us to see the transition between these states.

In the case of translation to individual patients, a description of the precise mechanisms by which their underlying genetic or structural abnormalities engage the networks can now be explored and in some cases very focal sites appear to be critical nodes within this process. This can now be translated to highly focal solutions and in the future it may give rise to deep brain stimulation that allows more precise modification of the expression of this disease. Specific cases explore this proof of principle have already been undertaken.
PLENARY SESSION 4

Speaker 3: Professor Lisa Bero

Reducing bias in Research: What’s good for the human is good for the mouse

Biography
Lisa A. Bero, PhD is Chair of Medicines Use and Health Outcomes at the University of Sydney, Charles Perkins Centre where she directs a programme in Research Integrity and Science Policy. From 1991 – 2014, she was Professor, Department of Clinical Pharmacy, School of Pharmacy and Institute for Health Policy Studies, School of Medicine, University of California, San Francisco. Prof. Bero is a pharmacologist who studies how science is translated into clinical practice and health policy. She has developed and validated methods for assessing bias in the design, conduct and dissemination of research on pharmaceuticals, tobacco and chemicals. Prof. Bero has also conducted analyses to examine the dissemination and policy implications of research evidence.

Her international activities include member and chair of the World Health Organization (WHO) Essential Medicines Committee, member of the Pan American Health Organization (PAHO) Advisory Committee on Health Research, and Chair of the PAHO Strategic Fund Selection Committee. Prof. Bero was an associate editor of Tobacco Control and editor of the Effective Practice and Organization of Care Cochrane group for over a decade. She is Director of the World Health Organization Collaborating Centre on Pharmaceutical Research and Science Policy. Prof. Bero serves on several committees related to evidence and decisions, such as the Institute of Medicine Committee on Conflict of Interest in Medical Research, Education and Practice and the National Academy of Science Committee to review the Environmental Protection Agency Integrated Risk Information System Process. Prof. Bero was an elected member of the Cochrane Collaboration Steering Group for 12 years and was appointed Co-Chair in 2013.

Abstract
Although the immediate risk to human safety may be less apparent in nonclinical than clinical research, protecting the integrity of the research record is equally important because of the implications for human health. Examining biases in nonclinical research can inform the development of policies and standards for the design and conduct of translational research. The ultimate goal is more methodologically sound animal studies that provide accurate estimates of benefits and harms. Translational research can lead companies to develop or license compounds from universities for further testing in humans. Therefore, policies to reduce the influence of conflicts of interest in animal research should also be considered.

In health care, systematic reviews of randomized controlled trials have played a transformative role in accelerating the incorporation of evidence into therapeutic and preventative action at the individual and societal level. Systematic reviews form the foundation for recommendations made in evidence-based clinical practice guidelines and are a way to assess the quality, indirectness, inconsistency and imprecision of the evidence. Systematic review methods are now being applied to summarize the results of preclinical studies, as well as mechanistic in vitro studies. A critical part of the systematic review process is the evaluation of the individual studies included in the review. This step must be performed for the studies included within each data stream (eg, human, animal, mechanistic). Empirically, risks of bias in clinical trials are associated with biased effect estimates.

There are many tools for assessing the quality of animal research that mix criteria for assessing risk of bias, completeness of reporting, and compliance with laboratory requirements or regulatory standards. A recent systematic review of tools for evaluating animal toxicology studies identified 30 distinct tools for which the number of assessed criteria ranged from two to 25 (Krauth et al. 2013). The most common criteria were randomization (25 of 30, 83%) and investigator blinding (23 of 30, 77%), but most of the items in the instrument were not based on any empirical evidence of bias. This paper will summarize the empirical evidence identifying risks of bias in animal studies, including studies that assess biases associated with funding sources and conflicts of interest. It will also identify biases that have been well studied in clinical research and discuss their applicability to animal research. Reducing bias in animal research should lead to the initiation of appropriate clinical trials that are an efficient use of resources and minimize risk to humans.
Speaker 4: Mr Doron Ben-Meir

The Commercialisation challenge – why it matters to every researcher

Biography

Mr Ben-Meir has extensive experience in the venture capital industry and commercialisation more generally. Over the past twenty four years he has been involved in numerous venture capital organisations; has been a founder or co-founder of six start-up companies; as well as an investor, investment manager, and advisor to several other companies. He has an intimate understanding of the practical challenges companies face, and of what is required to be successful. Through his investment and advisory work, he has been involved in identifying and assisting innovative companies to commercialise their intellectual property and transition through various stages of business development.

In April 2010 he was appointed by the Australian Government as the CEO of Commercialisation Australia and, from 1 July 2014, was appointed Director of the Entrepreneurs’ Infrastructure Programme. This $484.2 million Programme was launched in July 2014 and provides advice, assistance and tailored support to small and medium businesses to improve business capability and competitiveness.

Mr Ben-Meir’s qualifications include a Bachelor of Science and a Bachelor of Electrical and Computer Systems Engineering (Hons) from Monash University, Melbourne. He is a member of the Australian Institute of Company Directors.

Abstract

• Definition of the Commercialisation challenge – why it matters to every researcher
• The Entrepreneurs’ Infrastructure Programme – policy rationale; advisory and funding mechanisms; networking infrastructure; long term vision
• Case Studies – Start-ups targeting the Health & Medical sector that demonstrate the thesis
PREVENTION OF OBESITY HAS TO START SOMEWHERE: EVIDENCE TO PRACTICE IN OBESITY

Lombard, Cate¹, Harrison, C¹, Kozica, S¹, Teede, H ¹,²

¹MCHRI, Monash University, Melbourne, Australia
²Monash Health, Melbourne, Australia

Background
Implementation science is essential to take isolated efficacy studies into practice and policy. This is particularly important in obesity prevention where there is an urgent need to accelerate the evidence to practice cycle. Our group has utilised implementation science strategies to drive the development of a novel weight gain prevention program for women (HeLP-her) from a series of RCTs in different populations into practice across urban, clinical and rural settings.

Objectives
Participants will
1. Understand how to translate evidence to practice.
2. Gain practical implementation science knowledge from pragmatic clinical trials to dissemination, scale-up and evaluation.

Target group/ audience
Researchers and government representatives working in prevention, public health, health promotion, physical activity and healthy eating, practitioners including endocrinologists, GPs, allied health and NGOs interested in translating and delivering programs to the population.

Workshop description
This workshop will focus on the evidence to practice cycle, knowledge synthesis, knowledge generation, knowledge exchange, real world implementation and evaluation. We describe the generation of a systematic review, program development, pragmatic clinical trials, through the adaptation for various target groups including young women, pregnancy, rural communities and scale up for population roll out and new models of care in pregnancy.

Methods
This interactive workshop begins with brief presentations by experts including endocrinologists, research dietitians, exercise scientists and evidence synthesis experts. A ‘world café’ forum allowing participants to move through various tables with specific topics assigned to each. These include the evidence gathering, clinical and health care settings, the community setting and evaluation tools and techniques.
WHO’S AFRAID OF THE BUSH TODAY? VENOM ALLERGY IN AUSTRALIA

Winkel, Ken¹, Brown, SGA², Douglass J¹, Heddle, RJ³

¹The University of Melbourne, Melbourne, Australia
²The University of Western Australia, Perth, Australia
³SA Pathology, Adelaide, Australia

Background
Arthropods such as jumper ants (Myrmecia spp.), and various hymenoptera species, as well as ticks (Ixodes spp.) can inflict venomous stings with long-term sequelae. The chronic, and potentially lethal, nature of venom allergy presents a significant impact on patient quality of life. With a prevalence of systemic allergy to ant stings in Australia as high as 3%, venom allergy represents the single largest group of hospital admissions (40%) for venomous injury in Australia. Venom allergy is also the second most important cause of death from venomous injury and disproportionately affects rural Australia. Venom anaphylaxis is an emergency requiring immediate treatment with adrenaline. However, subsequent specialist assessment and review is critical to the development of an effective emergency action plan. This includes patient counseling concerning allergen avoidance, adrenaline autoinjector, venom immunotherapy [VIT] and annual follow up. The rural setting of most venom allergy highlights concerns about the acute shortage of specialist allergists in regional Australia. Additional barriers include the lack of many venoms for VIT, and incomplete referral for, and uptake of, current treatment and prophylaxis recommendations.

Objectives
To review the epidemiology of venom allergy, the basis of treatment and prevention recommendations as well as the immediate barriers to optimal research translation.

Target group/ audience
General practitioners, rural health specialists, emergency physicians, allergists and immunologists, state and federal health department staff.

Workshop description
The workshop will address past, present and future issues in optimizing research translation for the treatment and prevention of venom allergy in Australia. Although coordinated and led by venom researcher Dr Ken Winkel, it is proposed that the event will include participation by a specialist emergency physician as well as clinical allergist and immunologist.

Methods
A combination of interactive, case driven presentations highlighting current principles of evidence guided practice combined with a series of expert commentaries on injury burden and determinants as well as barriers to optimal research translation.
WORKSHOP 2B

DESIGNING USEFUL RESEARCH FOR DECISION MAKERS

Graves, Nicholas

Australian Centre for Health Services Innovation

Background
Decision makers in health services might downplay data from scientific studies because they don’t understand the methods or results, and they might be risk averse.

Solving the second problem is difficult but the first can be addressed by designing studies that inform decisions rather than only testing a hypothesis. Testing a hypothesis is of limited value for decision making.

Research that is designed to explicitly address the expected value of adopting or changing a health service is likely to be more useful. Decision makers also want studies that they understand, believe to be valid in their conclusions, and are simple to interpret.

Objectives
The objective of this workshop is for participants to gain insight and understanding into how to address decision maker’s needs right from the point of designing a research project.

Target group/ audience
Any health services, public health or medical researcher with an interest in translating their findings into real changes in policy or practice – particularly those conducting or including cost-effectiveness analysis in conjunction with their project.

Workshop description and methods
This master class will be about cost-effectiveness studies, but will emphasize how they should be designed for decision making.

The topics to be covered in this workshop will include
1. The principles of cost-effectiveness analysis
2. Hypothesis testing vs. decision making
3. Including uncertainties in studies & interpreting uncertain results
4. Rational and risk neutral decision makers
5. Some applied examples
Nelson, Mark\textsuperscript{1}, Blizzard, L\textsuperscript{1}, Kosmala, W\textsuperscript{1}, Sharman, J\textsuperscript{1}

\textsuperscript{1}University of Tasmania, Hobart, Australia

**Background**

BP is the commonest condition managed in general practice and yet its management is less than ideal. It is usually managed utilising a clinic derived datum point rather than a community-based dataset which is more representative of true BP. Home blood pressure (HBP) is superior to clinic measures to predict end-organ damage, cardiovascular events and mortality. A barrier to using HBP is the need to calculate average BP. To facilitate uptake of HBP monitoring it is proposed that GPs can simply determine a summary statistic from the OPTIMAL method.

**Objectives**

To develop a timely pragmatic method to assess BP control from patient diaries.

**Method**

Seven-day HBP and 24-hour ambulatory BP (24-ABP) were measured in 286 patients with uncomplicated treated hypertension from 3 Australian centres. We determined the optimal ratio of HBP readings above threshold (≥135 mmHg) from the last 10 recorded that would best predict elevated 24-ABP. Uncontrolled BP was defined as 24-ABP SBP ≥130 mmHg. Sensitivity was tested by association with markers of end-organ damage.

**Results**

Participants were aged 64±8 years, 53\% female, daily defined dose antihypertensive medications (2.4 ± 1.4), clinic BP 127/75 ± 14/10 mmHg. Having ≥3 of the last 10 systolic HBP readings ≥135 mmHg provided the best prediction of 24-ABP SBP (AUC=0.71). These individuals also had evidence of end organ damage compared with those who did not meet these criteria.
EVALUATION OF A PROGRAM TO IMPROVE HEALTH LITERACY

Luke, Joanne¹,², Kelaher, M², Belfrage, M¹, Anderson, I², Brown, A¹

¹Victorian Aboriginal Health Service, Fitzroy, Australia
²University of Melbourne, Parkville, Australia

Background

Health Literacy is an important driver of health inequalities for Aboriginal populations. ‘Health literacy’ is a term used to describe “how patients obtain, read, understand and use healthcare information.” Health professionals and services are crucial to developing the health literacy knowledge of patients.

Objectives

In 2009, the Victorian Aboriginal Health Service (VAHS) together with the University of Melbourne joined a collaborative project that brought together researchers from Universities and Indigenous Health services in New Zealand, Canada and Australia in an effort to address health literacy.

Method

Each country did a needs assessment to establish what health service staff and patients wanted in the space of health literacy. This together with best practice evidence around adult education was used to develop a health literacy program. The program focused on cardiovascular disease (CVD) medications and involved Aboriginal project workers being trained in health literacy and then conducting three structured sessions with patients. A project specific computer App and booklet supplemented these sessions.

Results

In 2013, 38 patients aged 39-78 years taking medications for management and/or prevention of CVD participated in the project. Findings revealed low baseline knowledge about medications, particularly instructions, side effects and treatment targets. Post intervention data revealed significant improvements in patient knowledge and in health literacy practices. These findings suggest that such interventions at the patient-health professional interface help build the health literacy skills of health professionals and in turn Aboriginal patients.
A PROPOSED MINIMUM SET OF OUTCOME METRICS FOR CORONARY ARTERY DISEASE MANAGEMENT FROM THE INTERNATIONAL CONSORTIUM FOR HEALTH OUTCOMES MEASUREMENT (ICHOM)

Tavella, Rosanna1, 2, Arstall, M1, 3, Worthley, M1, 2, Zeitz, C1, 2, Beltrame, JF1, 2, Kelley, T4, Stowell, C4, Stoefs J4

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2Central Adelaide Local Health Network, Adelaide, Australia
3Northern Adelaide Local Health Network, Adelaide, Australia
4International Consortium for Health Outcomes Measurement, Massachusetts, United States

Background

The debate over growing health care expenditure calls for a transformation in the value delivered by the health care system. Understanding value requires the measurement of outcomes specific to the condition. Despite clear evidence that assessing outcomes in patients with coronary artery disease (CAD) will lead to outcome improvement, no global standard outcome set exists. Furthermore, patient-centred outcomes are under-represented in current assessments.

Objectives

To develop a recommended minimum set of data that clinicians should collect on patients with CAD.

Method

The International Consortium for Health Outcomes Measurement (ICHOM), a non-profit health care organization, formed a CAD Working Group of physician leaders, registry leaders and patient advocacy leaders from 6 countries. Using a modified Delphi method over a series of in-person meetings and conference calls, the Group developed a final set of recommendations for CAD.

Results

The CAD Working Group defined metrics to include patients with both stable and unstable CAD and to cover a variety of treatment approaches from conservative management to surgical intervention. The specific domains include health risk factors, outcomes, treatment complications and patient-reported health measures. Definitions, time interval recommendations, and follow-up duration for each of the domains have been identified. This set of patient-reported and health-provider reported outcomes data will facilitate robust international comparative research and quality improvement. In Australia, the Coronary Angiogram Database of South Australia, a statewide cardiac registry, will facilitate the ICHOM CAD implementation pilot, serving as an initial step in an iterative process in improving the care of patients with CAD.
PUTTING PREVENTIVE GUIDELINE RECOMMENDATIONS INTO GENERAL PRACTICE: AN IMPLEMENTATION TRIAL

Harris, MF¹, Parkers, Sharon¹, Litt, J², Russell, G³, Mazza, D³, Lloyd, J¹, Zwar, N¹, Van Driel, M⁴, Del Mar, C³, Smith, J⁵, Taylor, R¹, Wilson, J⁶, Groomridge, S⁷, Howarth, T⁸

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Background

There are significant gaps in the implementation of evidence based guideline recommendations for cardiovascular disease and diabetes in Australian general practice. Following a systematic review and qualitative study, a partnership of Universities, National Heart Foundation of Australia, Royal Australian College of General Practitioners and the BUPA Foundation developed an intervention model for the implementation of guideline recommendations. This involved linking practices with additional referral services, providing interactive training of practice staff, audit of clinical records, and outreach practice facilitation.

Objectives

To evaluate the impact of a practice intervention on the quality of preventive care and cardiovascular risk of patients aged 40-69.

Method

30 general practices recruited from four states were randomised to intervention or control groups. Evaluation methods included audit of records, patient questionnaires, provider questionnaires and qualitative interviews at baseline and 12 months.

Results

There were significant improvements in GP and PN confidence and their assessment and recording risk factors. Patient with low health literacy were at greater risk and were more likely to receive advice. However there was no change in the low rate of referral of at risk patients. Although diet improved, there were no significant changes in physical activity, weight, or cardiovascular risk.

The intervention model resulted in significant improvements in assessment and recording of risk factors, but not in referral to lifestyle services and as a result there were few improvements in risk. Lessons from this trial will inform partners, service providers and policymakers in strategies to implement preventive care in general practice.
REVIEWING THE OPTIONS FOR PERFORMANCE BENCHMARKS FOR ACUTE STROKE CARE

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Background

There are challenges to estimating true ‘gaps’ in the quality of hospital care, in particular for achieving 100% adherence for some clinical performance indicators. Setting process and outcome benchmark standards may assist in providing achievable targets.

Objectives

To review different benchmark methods proposed in the literature to assess their utility for the Australian healthcare system using stroke as a case study.

Method

We report data for 8 nationally endorsed stroke performance indicators from the Australian Stroke Clinical Registry (AuSCR), restricted to Queensland hospitals that had registered >30 patients from January 2012 to December 2013. Two methods were compared: (a) standard approach where benchmark adherence score = n adherence/N eligible; and (b) Canadian approach where an Adjusted Performance Fraction (APF) score is calculated [(n adherence+1)/(N eligible+2)] where the mean benchmark APF score must represent ≥15% of the eligible sample (Hall and colleagues, 2013: doi:10.1093/intqhc/mzt069). The difference between the standard and APF benchmarks were calculated.

Results

Benchmarks calculated for 20 eligible hospitals (sample sizes ranged from 45 to 314 cases; total sample 3897 patients [mean age 73 years, 55% male]). Benchmarks varied between 1% (received intravenous thrombolysis: standard 17% versus APF 18%) to 14% (care plan on discharge: standard 96% versus APF 82%). For 6/8 indicators, the difference was <5%. The least differences between the approaches was obtained when the standard benchmark was derived from a hospital with a large sample.

Conclusion

Our study illustrates the benefits of comparing benchmark methods. Using Australian data, standard measurement approaches tended to overestimate benchmark results.
THE QUALITY IN ACUTE STROKE CARE (QASC) IMPLEMENTATION PROJECT: UPSCALE AND SPREAD OF EVIDENCE BASED RESULTS AFTER PUBLICATION

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On behalf of the QASC Implementation Working Group and Steering Committee

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Background
Stroke is a leading cause of serious long-term disability.¹ The Quality in Acute Stroke Care (QASC) Trial ² proved supported implementation of clinical protocols to manage fever, hyperglycaemia and swallowing following acute stroke decreased death and dependency by 16% (p=0.002); reduced temperatures (p=0.001); glucose (p=0.02); and improved swallowing management (p=<0.001). We conducted a large-scale, 12-month translational project supporting upscale and spread of this proven intervention across New South Wales (NSW).

Objective
To implement the QASC Fever Sugar Swallow (FeSS) clinical protocols into all 36 NSW stroke services.

Method
Collaborations with government agencies, academics, clinicians and the National Stroke Foundation were formed. We mirrored the QASC trial implementation process involving: examining barriers and enablers, education, reminders and clinical champion support. Medical record audits measured protocol adherence using a pre/ post study design.

Results
All 36 NSW (100%) stroke services participated with 2345 patients (pre-implementation: n= 1259; post-implementation: n=1086). Significantly increased proportions of patients received care according to the fever (pre: 62%; post: 78%; P<0.0001), hyperglycaemia (pre: 16%; post: 27%; P<0.0034), and swallowing (pre: 39%; post: 52%; P<0.0002) protocols post intervention. Post-implementation: Hyperglycaemic (glucose >10 mmol/L) patients who had their glucose monitored were significantly more likely to receive insulin (41% vs 14%; p<0.001). Febrile (>37.5°C) patients who had their temperature monitored were significantly more likely to receive paracetamol (50% vs 17%; p=0.0038).

Conclusion
We provide evidence for the effectiveness of research translation into routine clinical practice on a limited budget, in a short timeframe with applicability beyond acute stroke care.

PARALLEL 2B
OBESITY AND DIABETES - CHAIR: PROF IAN CATERSON

A CALL TO ACTION: IMPROVING AUSTRALIA’S HEALTH THROUGH RESEARCH FOCUSED ON HOW TO IMPLEMENT WHAT WE ALREADY KNOW

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Background
Lifestyle-related chronic diseases place a significant burden on the Australian health system. Despite significant financial investment in generating knowledge about “what” is effective, benefits are lessened by limited focus on “how” to facilitate its uptake and implementation into policy and practice. Implementation research aims to increase knowledge about “how” to implement and scale-up what is already known into policy and practice.

Objectives
In November 2013, a forum of researchers, policymakers, health practitioners and program implementers was held to share learnings from implementation research conducted in Australia and internationally.

Method
The 2-day forum included lectures from two international thought leaders and practitioners in the field of implementation research and asked: i) what do we know about how to implement evidence-informed approaches to improve lifestyle-related health and public health outcomes in Australia? ii) how do we address the identified knowledge gaps to improve Australia’s future health?

Results
The forum identified strategies for:

- Greater evidence in relation to health economics, program evaluation, and the value of different types of evidence.
- Increased focus on multidisciplinary collaborations, and adequately resourcing them, to enhance capacity for implementation research.
- Effective engagement of stakeholders to understand how to implement change from planning phases to implementation and sustainable scale-up.
- Effective use of relationships and contemporary communication tools, and greater advocacy, community empowerment and commitment of universities and research institutes to implementation research to ensure transformative change in power and influence.
- Understanding of the barriers and enablers experienced by different stakeholders to inform program implementation in complex environments.
ARTSHEALTH: TRANSLATING RESEARCH FOR INDIGENOUS COMMUNITIES

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Background

In a climate of limited research funds researchers are increasingly called upon to make their research findings personally relevant to the public. Never has this been more important than in Indigenous health research and its fight to close the life expectancy gap. Some of the challenges facing researchers and health practitioners when translating research results into meaningful health care programs for Indigenous communities include; distrust of mainstream health services, lack of cultural knowledge, low literacy and its subsequent impact on health literacy.

The Gomeroi gaaynggal NHMRC funded longitudinal health study seeking to understand the origins of renal disease in Indigenous communities has recruited the largest cohort of Indigenous women in their pregnancy in the world. This cohort of women and infants are subsequently maintained within the cohort for a further five years whilst their renal status and overall health are monitored.

In parallel, the team facilitate an ArtsHealth program that works with Indigenous artists, Indigenous women, children and Elders in both Tamworth and Walgett. This program educates Indigenous community members on research that will affect maternal /infant health as well as chronic disease prevention. Regular community events are held to celebrate the artistic achievements of the participants and research results/health education are communicated. Positively other Indigenous communities have requested the program in their local area. The success of building this cohort has come from the partnered approach of the community ArtsHealth program, and the cohort data is continuing to influence the educational focus delivered by health professionals and future research.
AN INTERVENTION TO FACILITATE THE IMPLEMENTATION OF OBESITY PREVENTION POLICIES AND PRACTICES IN CHILDCARE SERVICES

Jones, Jannah\textsuperscript{1,4}, Wolfenden, L\textsuperscript{1,4}, Wyse, R\textsuperscript{1,4}, Finch, M\textsuperscript{1,4}, Yoong, S\textsuperscript{2,4}, Dodds, P\textsuperscript{1,3}, Pond, N\textsuperscript{2,3}, Falkiner, M\textsuperscript{2,3}, Marshall, J\textsuperscript{2,3}, Gillham, K\textsuperscript{2,3}, Freund\textsuperscript{1,4}, M, McElduff, P\textsuperscript{1}, Wye, P\textsuperscript{1,3}, Wiggers, J\textsuperscript{1,4}

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Background
Implementing initiatives promoting healthy eating and physical activity in childcare settings has been identified as a priority to prevent excessive child weight gain. Despite this, few trials have been conducted to assess the effectiveness of interventions to support population-wide implementation of such initiatives.

Objectives
The aim of this study is to describe a multi-component intervention to increase the implementation of obesity prevention policies and practices by childcare services.

Method
This study was conducted in random sample of 128 childcare services in the Hunter Region of NSW. Sixty-four services were randomly allocated to a 12-month implementation intervention. The intervention consisted of a number of strategies to facilitate childcare service implementation of healthy eating and physical activity policies and practices, including securing executive support, consensus processes, provision of staff training, academic detailing visits, tools and resources, implementation support staff, performance monitoring and feedback, and a communications strategy. To assess the effectiveness of the intervention, telephone surveys with Nominated Supervisors and Room Leaders of childcare services will be conducted at baseline and post-intervention.

Results
Follow-up data for the trial outcome will be collected in June 2014. We will present the preliminary results including the extent of the delivery of the implementation intervention and the change in prevalence of services meeting all healthy eating and physical activity policies and practices. This trial aims to advance the currently limited evidence in this field and will contribute important information regarding the effectiveness of intervention strategies to facilitate the population-wide implementation of obesity prevention policies and practices in childcare services.
ADOPTION OF OBESITY PREVENTION POLICIES AND PRACTICES BY AUSTRALIAN PRIMARY SCHOOLS: 2006 TO 2013

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Background
Despite significant investment in many countries, the extent of schools’ adoption of policies and practices that promote healthy eating and physical activity by children has not been widely reported.

Objectives
The aims of this paper are to: describe Australian schools’ adoption of healthy eating and physical activity policies and practices over an eight year period and to determine if their adoption varies according to schools’ size, geographic or socio-economic location.

Method
Between 2006 to 2013, a randomly selected cohort of primary schools (n=476) participated in four telephone interviews. Repeated measures logistic regression analyses using a GEE framework were undertaken to assess whether there was a significant change in the prevalence of adoption of each practice between 2006 and 2013 and to assess if adoption varied according to the size, geographic or socio-economic location of schools.

Results
The prevalence of all four of the healthy eating practices and one physical activity practice significantly increased while the prevalence of one physical activity practice significantly decreased. The adoption of practices did not differ by school characteristics. The proportion of schools adopting at least 80% of practices increased from 31.7% in 2006 to 50.5% in 2013. Government investment can equitably enhance school adoption of some obesity prevention policies and practices on a jurisdiction-wide basis. Continuation of such investment is required if all primary school children are to obtain the intended benefits of such policies. Additional and/or different implementation strategies may be required to facilitate greater adoption of physical activity practices.
FINDING THE KEYS TO SUCCESSFUL PUBLIC HEALTH CAMPAIGNS PROMOTING HEALTHY WEIGHT AND LIFESTYLE TO ADULTS: QUANTITATIVE AUDIENCE TESTING RESEARCH

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Background
We have very little evidence about the characteristics of effective campaigns relating to obesity prevention.

Objectives
To quantitatively test audience reactions to a range of existing adult-focused public health television advertisements from English-speaking countries addressing healthy eating, physical activity and healthy weight to determine which ads have the highest levels of personalized perceived effectiveness, message acceptance and emotional impact (as outcomes associated with intention and/or behaviour change).

Method
3,313 Australian adults aged 21-55 years were recruited from a national online panel to complete a web-based survey. Quotas were applied to achieve even numbers of males and females, those aged 21-29 years and 30-55 years, and those of a healthy weight (BMI = 18.5-24.9) and overweight/obese (BMI = 25+). Participants were randomly assigned to view and rate four of eight shortlisted ads related to a specified lifestyle topic (healthy eating, physical activity or healthy weight).

Results
Ads featuring graphic imagery were generally among the highest rated ads on all three response measures, with the notable exception of ‘Man drinking fat’ which rated low on message acceptance. Animated style ads performed well in terms of personalised perceived effectiveness and message acceptance, but had minimal negative emotional impact on the audience. Most depicted scene style ads tended to be rated lowest for personalised perceived effectiveness. Findings from this program of research provide evidence about the kinds of messages and executional characteristics that could be pursued as part of effective lifestyle mass media campaigns.
THE BUILT ENVIRONMENT AND CHRONIC DISEASE PREVENTION: FACILITATING RESEARCH TRANSLATION

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Background
Timely translation of research into policy and practice is challenging, particularly for chronic disease prevention researchers whose objective is to increase population physical activity by changing the ways cities are built. In this context, using evidence to inform policy and practice appears to be hampered by the poor fit between academic research and the needs of policy-makers and practitioners.

Objectives
The aim of this presentation is to briefly provide a rationale for designing cities to enhance health, before exploring factors that influence adoption of evidence-based policy and practice. It concludes by presenting recommendations to bridge the gap between researchers and policy-makers with the specific aim of facilitating translation of active living research.

Method
We reviewed the evidence on factors that influence adoption of evidence-based policy and practice.

Results
We propose 10 strategies that might facilitate the translation of research into health-enhancing urban planning policy. These include multi-disciplinary research teams working in partnership with policy-makers and practitioners; undertaking explicitly policy-relevant research by adopting appropriate study designs and methodologies (e.g., evaluation of policy initiatives as ‘natural experiments’); and adopting dissemination strategies that include knowledge brokers, advocates and lobbyists. Achieving more policy-relevant research may require additional training for researchers, different reward systems in academia and recognition by funders of the additional time it takes to undertake policy-relevant research in partnership with policy-makers and practitioners.
WORKSHOP 3A

BRIDGING THE RESEARCH TO PRACTICE GAP: USING THE ARTS AS A KNOWLEDGE TRANSLATION STRATEGY

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Background
The transfer of research findings into policy and practice is often slow and haphazard. The emerging science of knowledge translation (KT) involves approaches to enhance research uptake. Using arts-based strategies to disseminate research findings has been demonstrated to result in changes in awareness, attitudes and behaviour among the scientific and broader community. Wobbly Hub and Double Spokes is a NHMRC-funded ‘Partnerships for Better Health’ project to develop, implement and evaluate evidence-based policies to support therapy service delivery to people with disability in rural NSW communities. The project team collaborated with Canadian experts and local artists to develop arts-based KT strategies.

Objectives
1. Describe the potential of arts-based KT as an effective way to disseminate research.
2. Highlight the use of the arts to share research on disability services in rural communities.
3. Engage the workshop attendees in a creative activity to illustrate these innovative KT methods.

Target group/audience
Researchers, service providers, policy makers and consumers of health services.

Workshop description
Workshop participants will learn about innovative and creative KT strategies (e.g., literary, performative and visual) that involve partnering with artists to disseminate research knowledge. The creative KT strategies used to share Wobbly Hub research results with rural NSW communities will be described.

Methods
Through discussion and creative activities, attendees will learn how to embed arts-based KT strategies in research design. They will gain an understanding of how to develop and enhance interdisciplinary collaborations using art-based strategies to engage a broad, and often missed, audience in research results.
WORKSHOP 3B

DIGGING FOR GOLD: OPTIMISING REGISTRY DATA SETS FOR RESEARCH TRANSLATION

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Background

The ANZICS Intensive Care Adult Patient Database was established in 1992 and hosts over 1.5 million records. There is increasing interest in using the registry to provide access to large patient cohorts and longitudinal data. Registry data can be used to:

- Evaluate new practices and related patient outcomes
- Develop research methodologies and study design
- Undertake studies where randomisation is unnecessary
- Assist studies where treatments or conditions would have ethical and pragmatic challenges
- Improve cost-effectiveness through reduction in data collection burden

Workshop Objectives

- Develop knowledge of registry design and databases for clinical translational science
- Understand barriers and facilitators of database linkage in the Australian healthcare context to support research translational across the continuum of care
- Demonstrate practical examples of recent use of registry data in research translation

Target group/audience

Researchers who:

- need data to support research translation projects
- are interested in the future of registry-based trials

Workshop description

The workshop will explore the role of clinical registries and provide examples where they have been successfully used to support research translation. The topics to be covered include:

- Digging for gold: How registries can be used to identify and close clinical practice gaps?
- Talking to each other across the system: The challenges of registry database linkage
- The future: Translational research & registries – facilitators, barriers and priorities

Methods

The workshop format is a combination of presentations followed by interactive focused discussion addressing the following questions:

- Why this important for me to know?
- What will I do with this knowledge?
PARALLEL 3A
CANCER - CHAIR: DR WEE-MING BOON

IMPROVING BONE HEALTH MANAGEMENT AFTER CANCER

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Background

Breast and prostate cancer survivors are at risk of bone loss as a result of cancer treatment. While assessment and management of bone loss after cancer is supported by evidence, there is no explicit agreement as to who should be responsible for care delivery and how to deliver coordinated care across multiple health care settings.

Objectives

The objectives of this study were to develop an evidence-based model of care delivery that ensures effective management of risk of bone loss after breast and prostate cancer, that can be then evaluated in a clinical trial.

Method

Key intervention components and barriers to intervention implementation were identified through a review of existing guidelines, an audit of clinical practice and a survey of health care providers across multiple disciplines. Based on these, a logic model of proposed intervention is being developed and refined to inform the design of a clinical trial.

Results

While multiple evidence-based practice guidelines exist, they are not easily accessible to providers and not clear as to who should be delivering care. Some of the key diagnostic and therapeutic strategies are not reimbursed in the Australian health care setting. Providers identify multiple barriers to care delivery including lack of time, skills and reimbursement and the care delivered is variable, with many patients not receiving recommended assessments and interventions. A refined logic model of proposed intervention incorporating point of care resource provision to providers and patient activation strategies will be presented.
THE HEALTHY LIVING AFTER CANCER PARTNERSHIP PROJECT

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Background

There is considerable evidence for the efficacy of physical activity, diet and weight loss interventions in improving health outcomes for cancer survivors, but very limited uptake into practice.

Objectives

Healthy Living after Cancer (HLaC) is an evidence-based, telephone-delivered lifestyle program targeting cancer survivors. This paper describes the translation of HLaC into practice in partnership with state-based Cancer Councils.

Method

Cancer Councils were approached as they had an existing service delivery model (i.e., Cancer Helplines). A two-year translation process involved numerous contacts with Cancer Council stakeholders, with emphasis on “fit” of HLaC with Cancer Council strategic planning. Ten national and international academic, clinical, program and policy investigators were engaged via extension of established research collaborations. A trials group-sponsored Concept Development Workshop was held, which solidified partner buy-in leading to a collaboratively-developed Partnership Proposal submitted to the NHMRC.

Results

HLaC will integrate lifestyle intervention (and evaluation) into the Cancer Helplines of four partner Cancer Councils (NSW, Vic, SA, WA). The project plan involves: infrastructure and capacity building; implementation and evaluation; and advocacy for continued funding. Primary outcomes in this pre-post design dissemination study are: adoption reach, representativeness and retention of program participants; fidelity of program implementation and evaluation; participant and staff satisfaction; documentation of delivery costs. Secondary (participant-reported) outcomes are: physical activity, dietary behaviour change, weight and quality of life. Integration of evidence, utilisation of existing models of care delivery, engagement with multiple stakeholders, and capacity building are critical to the translation of interventions to improve healthy living after cancer.
A SYSTEMATIC APPROACH TO CLOSING EVIDENCE GAPS IN CANCER CARE


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Background
Catalyst Translational Cancer Research Centre is a 5 year program funded by the Cancer Institute NSW. Catalyst covers a number of major research and cancer service centres across NSW. A key aim of Catalyst is to promote Implementation Science. Catalyst has funded a 2 year flagship project to address gaps in lung cancer.

Method
The Flagship Program has taken a systematic approach to creating a Implementation Program in Lung Cancer. This has included: a review of implementation frameworks to underpin a systematic approach; an gap analysis around lung cancer care using literature and local and international data; a priority setting process across three clinical centres (Lifehouse, St Vincent’s and Orange); a process mapping exercise; and the establishment of implementation initiatives across these sites that is integrated into existing quality improvement programs matched to priority areas.

Results
An integrated implementation program has been developed. The gap analysis has been completed and 7 gaps in lung cancer care have been identified. The prioritisation and process mapping exercise has been completed and implementation plans across the sites have been developed. The findings of the gap analysis and priority setting exercise along with the team’s experience in how to develop a comprehensive implementation program will be shared at the conference.

Conclusion
Taking a systematic and structured approach based on evidence has resulted in engaged clinical teams, substantial capacity building in implementation science and a sustainable program that has attracted additional funding.
USING A MULTI-DISCIPLINARY PROGRAM OF CANCER CARE AS A VEHICLE FOR MORE EFFECTIVE RESEARCH TRANSLATION

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Background

Multi-disciplinary teams (MDTs) are the model of cancer care in Australia and the UK. However, there is considerable variation in their performance and in the way they interact with research across the translational space from discovery to practice and policy. This study focuses on how to build systemic capacity for implementation science via a program of MDT cancer care.

Objectives

The study explored the factors that support MDTs to conduct more effective research translation in cancer care. In particular, we identified resources and tools that assist MDTs translate new evidence and improve the quality and coordination of care for people living with cancer.

Methods

The study used mixed methods to identify organizational systems and structures that support MDTs. Semi-structured interviews were conducted with MDT leaders and champions to collect baseline information about how teams interact with and how they generate research and implementation initiatives. In addition, observations of MDT meetings were also undertaken to identify strategies for increasing the research output of MDTs and to improve quality of care for people with cancer in western Sydney. Subsequently, a process mapping exercise was used as an implementation technique to highlight areas for improvement and to identify structures and systems that support implementation effectiveness.

Results

The presentation will report on findings from interviews, the process mapping exercise and the observations of MDT meetings. Despite considerable variation in the way MDTs interact with and generate research, process mapping and observation are effective and powerful tools for implementation studies.
PROMPT-CARE PROJECT: EHEALTH SYSTEM SUPPORTING PERSONALISED CANCER TREATMENT AND CARE

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FUNDING: Cancer Institute NSW Patient Reported Experience Collaborative Project Grant

Background

Patient reported outcomes (PROs) are increasingly important in patient-centred care, but widespread collection still does not occur.

Objectives

This research will investigate implementation of evidence into “real world” clinical practice, through development of an efficient and user-friendly eHealth system to facilitate a) PRO data capture; b) data linkage and retrieval to support clinical decisions; and c) data retrieval to support ongoing evaluation and innovative research.

Method

We are developing an eHealth decision-support platform containing a suite of tools and resources to facilitate collection and analysis of PROs (physical, psychosocial) from cancer survivors over time. The PROs will inform patient self-management, with online evidence-based information and resources enabling patients to take an active role in decision making and in managing ongoing care and recovery. The clinical team will also receive PRO results, with evidence-based recommendations for addressing issues of concern, thereby promoting timely and PRO-tailored cancer care. The system will be fully integrated into the existing hospital oncology information systems (OIS) to permit clinicians real-time data access.

Results

The project is guided by a Steering Group, Technical Advisory Group and Clinical Advisory Group, with consumer consultation. PROs collected include symptoms, distress, quality of life and unmet needs. We developed algorithms to inform PRO intervention thresholds for self- and clinical-management; and clinician PRO feedback reports including assessment summaries and longitudinal data. Collation of patient self-management resources and IT programming to transfer PRO data in real-time to the OIS to support clinical decision making are underway.
TOWARDS MASSIVELY PARALLEL TRANSLATION

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Background
For almost two decades the provision of breast cancer clinical genetics has been in an environment where a heritable cause of breast cancer susceptibility is identified in the vast minority of women seeking advice about their personal and/or family history of breast and/or ovarian cancer. Research is identifying additional breast cancer susceptibility genes and promises to provide the explanation for a greater proportion of the current missing heritability.

Objectives
To define appropriate and coordinated pathways for the translation of new genetic information so that it can be applied in clinical genetic services for the benefit of the majority of women who currently have no explanation for their breast cancer susceptibility.

Method
PALB2 has been demonstrated to be a breast cancer susceptibility gene. Of particular note to the Australian population is PALB2 c.3113G>A that is carried by approximately 1% of affected Australian women with a family history of breast cancer. Population-based studies demonstrated that this mutation is associated with breast cancer risk comparable to the average risk associated with BRCA2 mutations. PALB2 has provided an opportunity for the development of a pathway for translation of new genetic information.

Results
eviQ; Cancer Treatment Online, is now established as a national platform to host point of care information of great relevance to the practice of cancer genetics and now contains new genetic testing and risk management protocols related to PALB2. This pathway of translation is anticipated to be appropriate for the volume of imminent new genetic data of relevance to clinical genetics services.
Using Qualitative Research to Help Mothers with Rheumatoid Arthritis

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**Background**
Women with rheumatoid arthritis (RA) face a number of challenges in negotiating the journey to parenthood, due to the symptoms associated with the condition and the potential effects of RA medications.

**Objectives**
To develop recommendations for improving the provision of disease-specific information to women with RA concerning pregnancy, post-natal care and early parenting.

**Method**
Semi-structured interviews and focus groups were conducted with 27 women with RA who had been pregnant within the last 5 years or were planning pregnancy. Participants from across Australia were recruited from community advertisements and health clinics. Interviews and focus groups covered perceived gaps in knowledge, sourcing relevant information and further information needs. Inductive coding was undertaken to identify key themes. Based on emergent themes, detailed recommendations were developed for translating the findings into services, policy and practice.

**Results**
Six key recommendations were developed to address the major knowledge and service gaps identified, including:

- Developing an online resource hub to be administered by arthritis consumer organisations
- Offering multiple information formats to comprehensively meet the needs of women with RA
- Facilitating online peer-support groups/mentoring programs to enable women to share personal experiences
- Promoting the role of arthritis consumer organisations to relevant health professionals
- Developing disease-specific training programs to upskill midwives and maternal and child health nurses
- Raising awareness to counteract the community perception that RA is a disease affecting older people

These recommendations will be implemented via new information delivery models, interdisciplinary education and services designed to support women and their families during pregnancy and beyond.
WORKSHOP 3 / PARALLEL SESSION 3

BUILDING WORKFORCE CAPACITY IN RHEUMATOID-ARTHRITIS USING POLICY-INTO-PRACTICE AND DIGITAL STRATEGIES

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Background
Models of Care (MoC) promote community-based delivery of health services for people with chronic conditions.

Objectives
This programme of research aimed to implement recommendations of the WA MoC for Inflammatory Arthritis, relevant to physiotherapists, to improve management capacity for consumers with rheumatoid arthritis (RA) in community settings.

Method and Results
We undertook a multi-phased programme from 2011-14, including:

- Phase 1: Investigated barriers/enablers to MoC implementation. Workforce capacity (specifically, knowledge and skills) was identified as a barrier to successful implementation of the MoC.
- Phase 2: Established disease-specific knowledge and skills required by physiotherapists to deliver best care for RA using an international e-Delphi method and critical appraisal of clinical guidelines.
- Phase 3: Identified evidence-practice gaps by surveying the workforce to characterise knowledge and skills gaps in best-practice management of RA.
- Phase 5: Evaluated the effectiveness of RAP-eL. A randomised controlled trial indicated a substantial, positive effect of the intervention compared to controls in self-reported confidence in knowledge and skills and clinical behaviours in specific areas (effect sizes 1.52-1.64) in best-practice management of RA.
- Phase 6: Worked with partners to implement RAP-eL (Curtin University, Department of Health (WA), Arthritis and Osteoporosis WA, Australian Physiotherapy Association, Australian Rheumatology Association, Rheumatology Health Professionals Association).

RAP-eL is a promising, accessible and sustainable tool for building workforce capacity in the management of RA.
STAKEHOLDER CONSENSUS FOR ADDRESSING PRIORITY AREAS IN INDIGENOUS CHRONIC ILLNESS CARE

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Background
The ABCD National Research Partnership works across Australia to improve the quality of primary health care (PHC) services available to Aboriginal and Torres Strait Islander people. The Partnership is engaging stakeholders in analysing aggregated continuous quality improvement (CQI) data collected from 2005 on chronic illness care.

Objectives
Until now, up-to-date CQI data have not been widely used beyond the health centre or region level. We will explain and present results from an innovative process of engaging health service staff, managers, policy makers and other stakeholders in CQI data use, using this and other available evidence to determine and address priority areas for improvement in chronic illness care for Aboriginal and Torres Strait Islander communities.

Method
Over a period of approximately six months, four phases of consultation with stakeholders have assisted in building consensus on a) priority gaps between guideline recommended services and actual practice, b) barriers and enablers to improvement and c) strategies for improvement. Final reports will be available to help inform system changes to direct resources and efforts where they can most improve the health of Aboriginal and Torres Strait Islander populations.

Results
Based on national CQI data reports, stakeholders have identified six areas for priority improvement in chronic illness care including: follow-up of abnormal findings and review of medication; adherence to current treatment guidelines for medication prescription; and emotional wellbeing assessment and provision of support to patients with recorded concerns. Recommendations from stakeholders on how to address these areas at various levels of the system will be presented.
THE IMPORTANCE OF LONGITUDINAL EPIDEMIOLOGICAL RESEARCH FOR DECIPHERING THE SECRETS OF DISEASES WITH LONG PRODROMES (DEMENTIA, CARDIOVASCULAR HEALTH)

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Background
In diseases with a long prodrome the importance of the timing and duration of required intervention or prevention is crucial in determining disease outcome. Without longitudinal studies of appropriate duration the optimal timing and duration of intervention cannot be determined and may result in negative trials for otherwise appropriate therapies.

Objectives
To demonstrate the utility of longitudinal epidemiological research in improving management of Alzheimer’s Disease and Cardiovascular morbidity.

Methods
The Women’s Healthy Ageing project commenced in 1991 as the Melbourne Women’s Midlife Health Project initially funded by VicHealth an annual longitudinal follow-up of epidemiologically sourced women aged 45 – 55 who were premenopausal and not on hormone replacement therapy for 8 years. The WHAP saw intermittent follow-up in 2002, 2004, 2012 and 2014. In this talk we discuss the relevance of the recent follow-up to impact our understanding of Alzheimer’s Disease development and Cardiovascular Health outcomes in ageing women.

Results
389 women had at least one cognitive measure and two or more follow-up measures over the 22 years of follow-up. Amyloid imaging was conducted in 125 women. Women with cerebral amyloid were more likely to have brain cell loss in the preceding decade. Midlife cardiovascular risk factors showed the greatest impact on later life cognition and morbidity. Long duration longitudinal studies can demonstrate that the therapeutic window for diseases of ageing which have a long prodrome like dementia may not be in the current therapeutic trial populations (over 65) but rather in people 50-60.
REDUCING INAPPROPRIATE ANTIPSYCHOTIC USE IN RESIDENTIAL AGED CARE FACILITIES

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Background
Managing Behavioural and Psychological Symptoms of Dementia (BPSD) poses a great challenge to Residential Aged Care Facilities (RACFs). Antipsychotics (and other medications) are often used to manage BPSD despite limited evidence of efficacy and increased risk of stroke, cognitive decline and death, and mounting evidence of the benefits of non-pharmacological interventions.

The Halting Antipsychotic use in Long-Term care (HALT) study proposes a model for deprescribing antipsychotics through delivery of education to healthcare teams.

Objectives
1. To reduce antipsychotic use without use of substitute medications
2. To provide education to RACF staff, GPs and pharmacists in the appropriate use of antipsychotics for BPSD and person-centred approaches to behaviour management
3. To improve residents’ quality of life and engagement and reduce adverse events, hospitalisations and death.

Method
Educate RACF staff, GPs and pharmacists about appropriate use of antipsychotics and alternative approaches to behaviour management. Recruit residents based on > 3 months use of antipsychotics for BPSD. Data will be collected before baseline, at baseline and 3, 6 and 12 months afterwards.

Results
Barriers to implementation of person-centred non-pharmacological behaviour management strategies include resistance to practice change and fear surrounding deprescribing from staff, clinicians and residents’ families. Recruitment has been challenging and rates of antipsychotic use amongst participating RACFs is lower than anticipated.

Reducing antipsychotic use for older people with dementia is a recognised priority. This study will implement a model based on robust evidence of achieving this.
A RESEARCH TRANSLATION INTERVENTION TO INCREASE UPTAKE OF DEMENTIA GUIDELINES IN GENERAL PRACTICE

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Background
Dementia is a growing problem causing substantial burden for patients, their families and society. General practitioners (GPs) play an important role in detecting and managing dementia. Evidence-based dementia guidelines relevant to primary care contain recommendations which, if followed, optimise the health outcomes for patients. However gaps between recommended and current practice exist.

Objectives
To describe the process of developing a research translation (RT) intervention which aims to increase the uptake of an evidence-based dementia guideline in Australian general practice. The IRIS (Investigating Research Implementation Strategies for the care of older adults with suspected cognitive impairment) intervention is undergoing evaluation in a NHMRC-funded cluster randomised trial [ACTRN12611001032943].

Method
Qualitative interviews with 30 Victorian GPs explored the factors hindering and enabling performance of guideline-recommended behaviours. The Theoretical Domains Framework informed the approach to data collection. Data was analysed using content and thematic analysis. A systematic and theory-informed approach was used to select behaviour change techniques (BCTs) and modes of delivery considered potentially effective in targeting identified barriers and enablers. A project advisory committee provided input on feasibility and acceptability of the RT intervention.

Results
Theoretical explanations for why GPs may or may not practise consistently with the guidelines were identified and 11 BCTs were combined into an interactive workshop designed to support practice change. Rigorous evaluations of tailored, theory-informed RT interventions such as IRIS will contribute to the empirical and theoretical base needed to optimise research translation interventions.
Facilitator: Paul Barclay

Paul Barclay is presenter and series producer of Big Ideas on ABC RN. Prior to this he was presenter of Australia Talks for six years. Paul has produced countless stories for many programs on most ABC radio networks, has occasionally appeared on ABC TV, and when circumstances permit, has produced radio documentaries for ABC RN’s Background Briefing. He presented ABC Radio’s morning current affairs program in the Northern Territory, from Alice Springs. Over the years Paul has won numerous awards, including a Walkley award for his investigation of Bundaberg’s notorious ‘Dr Death’. He has written for various magazines (including Rolling Stone), been program director at ABC Local Radio in Brisbane, and was executive producer of Australia Talks’s predecessor, Australia Talks Back, for seven years. He can be seen conducting conversations, interviews, panel discussions and debates at various cultural events and venues including writers festivals, bookshops, the state library, arts centres, film festivals, theatres and science festivals.
PLENARY SESSION 4

Speaker 1: Professor Ingrid Winship

Biography

Professor Ingrid Winship was appointed as the inaugural Chair of Adult Clinical Genetics at the University of Melbourne and Executive Director of Research, Melbourne Health in 2006. She completed her medical and postgraduate training in genetics and dermatology at the University of Cape Town, followed by a combined academic and clinical position there. In 1994, she joined the University of Auckland where she later became Professor of Clinical Genetics and Associate Dean Research, Clinical Director of the Northern Regional Genetic Service and Chair of New Zealand’s Genetic Technology Advisory Council.

Professor Winship has a wide range of clinical and research interests in inherited disorders with adult onset, including familial cancer, and where foreknowledge of genotype may influence clinical or lifestyle measures to create positive patient outcomes. Her experience spans gene discovery and the translation of discovery into clinical practice and policy. She has also highlighted the societal implications with research into the ethical, legal, cultural and psychosocial domains of genetic technology.

Professor Winship is currently a member of the Victorian Cancer Agency, the Board of the Walter and Eliza Hall Institute, and the Peter Doherty Institute Council. She is on the steering committee of the Melbourne Genomic Health Alliance, Scientific Advisor to the Human Variome Project and a member of the Strategic Advisory Council of the Kinghorn Centre for Clinical Genomics. She is a member of the Health System Information, Knowledge and Innovation Management Advisory Committee for the Victorian Department of Health, and the NHMRC Human Genetic Advisory Committee.
Speaker 2: Associate Professor Lyndal Trevena

**Biography**

Lyndal is a general practitioner and Associate Professor in the Sydney School of Public Health at the University of Sydney. She commenced her academic career in 2001, after 15 years in clinical practice. Her research focusses on the application and implementation of research evidence in practice. She is on the steering committee for IPDAS (International Patient Decision Aids Standards) and in 2011-13 she led the revision of the international standards on communicating risk in patient decision aids. She co-leads a Shared Decision-Making research group within the Centre for Medical Psychology and Evidence-Based Decision-Making (CeMPED) and has recently chaired the Primary Care Working Group for the NHMRC Research Translation Faculty’s Case for Action initiative. She provides pro bono clinical services to the Asylum Seeker centre NSW, reflecting her special interest in working with vulnerable populations.
PLENARY SESSION 4

Speaker 3: Associate Professor John Furler

Biography

John Furler is a research fellow in the General Practice and Primary Health Care Academic Centre and a GP at the North Richmond Community Health Centre in Richmond. John’s research focuses on diabetes and chronic illness care in general practice; health inequalities in general practice; the doctor-patient relationship, patient centeredness and the co-construction of social identity in medical care; and the ways in which medical practice may act as a social determinant of health. John leads the Ageing, Chronic Disease and Equity research group in the Department. He is a member of the Social Equity Research Institute reference group at Melbourne University.
Speaker 4: Ms Karen Carey

Biography
Karen Carey has represented consumers for more than a decade across all levels of the healthcare system. She is the Chair of the NHMRC Community and Consumer Advisory Group, the immediate past Chair of Consumers Health Forum and former Chair of Health Consumers Council of WA. Karen’s focus is on building a healthcare system that highly values prevention and in which consumers can meaningfully partner with service providers to deliver safe, effective and cost-effective care, from individual patient episodes to system wide strategic planning and design.

Karen is the Executive Producer of the health program Tonic broadcast on ABC TV and in over 40 countries internationally. She is also the co-founder of Tonic Direct, which narrowcasts broadcast quality evidence-based health programs into healthcare environments with an annual Australian audience of 6 million viewers and growing at around one million viewers per month.
A FRAMEWORK FOR EVALUATING THE IMPACT OF OBESITY PREVENTION STRATEGIES ON SOCIOECONOMIC INEQUALITIES IN WEIGHT

Backholer, Kathryn\textsuperscript{1,2}, Beauchamp, A\textsuperscript{1,3}, Ball, K\textsuperscript{3}, Turrell, G\textsuperscript{4}, Martin, J\textsuperscript{5}, Woods, J\textsuperscript{3}, Peeters, A\textsuperscript{1,2}

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\textsuperscript{5}Obesity Policy Coalition, Melbourne, Australia

Background
Analysis of the impact of obesity prevention interventions on socioeconomic inequalities in health has been neglected.

Objectives
We developed a theoretical framework to organise universal obesity prevention interventions into their likely impact on the socioeconomic gradient of weight.

Method
We partitioned the framework into two scales; the environment where action is taken (micro and macro environments) and the degree to which an intervention targets individual agency or embedded structures to influence behaviour change (characterised by three predominant policy types: agentic, agento-structural and structural).

Results
The degree to which an intervention involves individual agency versus structural change is likely to influence socioeconomic inequalities in weight. Agentic interventions, such as stand-alone social marketing, are more likely to increase socioeconomic inequalities. Structural interventions, such as food procurement policies and mandatory restrictions on the availability of unhealthy foods in schools, are likely to show equal or greater benefit for lower socioeconomic groups. We identify an important group of interventions, agento-structural, to which many obesity prevention interventions belong. These are mindful of the environment in which health behaviours occur, but require a level of individual agency for behaviour change. They include workplace design to encourage incidental exercise, and fiscal regulation of unhealthy foods or beverages.

Conclusion
This framework may be used by decision makers to identify the likely impact of obesity prevention interventions on socioeconomic inequalities in weight. Limiting further increases in socioeconomic inequalities in obesity is likely to require implementation of structural interventions. Further empirical evaluation, especially of agento-structural type interventions, remains crucial.
Poster board number: 2

**CHRONIC DISEASE MANAGEMENT TRANSLATION: IMPLEMENTATION MODELS AND THE FLINDERS PROGRAM**

**Battersby, Malcolm¹, Harris, M¹**

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**Background**

The Chronic Care Model (CCM), internationally-accepted best-practice for managing chronic disease in primary care, has been partially implemented at best. However, implementation has not been guided by explicit frameworks of practice change. Progress may be improved if future research is guided by models from implementation science.

Our group developed the Flinders Program to structure clinical practice consistent with the CCM. Drawing together existing work on the Flinders Program using implementation models may clarify what is already known, and where and how further implementation work should be conducted.

**Objectives**

To:
- identify major domains from implementation models
- synthesise existing work on the Flinders Program using these domains
- summarise existing knowledge and recommend research directions in terms of implementation models.

**Method**

Major domains were drawn from a highly-cited meta-model. Implementation findings on the Flinders Program were mapped against domains.

**Results**

Major domains are:
- the “Unadapted Innovation”
- implementable “Adapted Innovation”
- “Individuals” - health service staff
- “Individuals” - patients
- “Inner Setting” - organisations
- “Outer Setting” - economic and socio-political
- implementation “Processes”

The unadapted CCM is poorly implemented. Implementation work from SA Healthplus trials, Coordinated Veterans Care and Flinders Closing the Gap Program demonstrates the Flinders Program as an implementable adapted innovation. Existing training provides implementation processes responding to health service staff factors. Knowledge to underpin reliable implementation processes for patient and inner organisational factors is less developed. Anecdotal reports but not research-based processes are available on factors within the outer setting.

Effective implementation requires further research especially to respond to patient, organisational and external economic and socio-political factors.
EAT: DIETITIAN INTERVENTION FOR RADIOTHERAPY HEAD AND NECK CANCER PATIENTS

Beck, Alison1, Britton, B,1,2, Baker, A1, Bauer, J3, Wolfenden, L4, Wratten, C4,5, McElduff, P6, Carter, G2,4

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4University of Newcastle, Newcastle, NSW, Australia
5Dept Radiation Oncology, Calvary Mater Newcastle, Newcastle, NSW, Australia
6Clinical Trials Unit Hunter Medical Research Institute, University of Newcastle, Newcastle, NSW, Australia

Background
Maintaining adequate nutrition in head and neck cancer (HNC) patients is challenging. Dietetic intervention can improve clinical outcomes. However, many HNC patients are non-compliant with dietary advice. Behaviour Change Counseling (BCC) is an empirically supported approach for promoting behaviour change. BCC is a collaborative, patient centered approach that incorporates motivational interviewing and behavioural strategies. Assisting dietitians to integrate BCC into standard dietetic consultations represents one mechanism for enhancing compliance with dietetic interventions, thereby improving treatment outcome for HNC patients.

Objectives
This trial builds on promising pilot data and is designed to evaluate the effectiveness of a dietitian delivered BCC intervention: Eating As Treatment (EAT) to reduce malnutrition in HNC patients undergoing radiotherapy.

Method
This is a stepped wedge, randomized controlled trial. 400 HNC patients undergoing radiotherapy will be recruited from four Australian hospital sites. Assessments will be conducted at four time points (first and final week of radiotherapy, four and 12 weeks post-radiotherapy). Nutritional status (PG-SGA) of patients undergoing “treatment as usual” will be compared to patients receiving the EAT intervention. A comprehensive assessment of fidelity will also be undertaken.

Results
Preliminary findings regarding patient nutritional status and intervention fidelity in two of the four sites will be discussed.
Poster board number: 4

POSITION STATEMENTS: A METHOD TO EXPEDITE ADVICE FROM COCHRANE REVIEWS

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Background

Australians contribute to almost a fifth of all Cochrane systematic reviews and are the highest per-capita users of The Cochrane Library. To optimise the value of individual Cochrane reviews and support the translation of review findings into practice, Australia’s National Health and Medical Research Council (NHMRC) and the Australasian Cochrane Centre piloted the development of position statements as a means to promote evidence relevant to Australian clinicians and policy makers.

Objectives

To develop a method for producing succinct, evidence-based NHMRC Position Statements from high quality relevant Cochrane reviews.

Method

We undertook a six-month pilot in 2013 to test the feasibility of deriving NHMRC Position Statements from individual Cochrane reviews. We screened new and updated reviews against NHMRC priorities and selected those with implications for individual patient care in an Australian context. We undertook targeted consultation with stakeholders on the position statement concept and formats for evidence presentation.

Results

During the pilot, we selected 17 reviews that provided conclusive evidence of single interventions relevant to priority areas; three were used to illustrate the position statement concept. Each statement contained key messages, a summary of findings, and graphical display of results. Overall, stakeholder feedback indicated support for the concept and proposed format. Processes for topic selection and deriving recommendations were identified as areas for ongoing refinement.

The expedited process will be discussed, using examples relevant to chronic and complex care. The pilot will inform ongoing efforts to refine methods to rapidly incorporate quality evidence to guidance relevant to Australian health care.
RETRO-PERFUSION TECHNOLOGY FOR THE DELIVERY OF GENTAMICIN - A PRE-CLINICAL STUDY

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Background
Diabetic foot infection can become refractory to existing treatment strategies and can cause complications associated with wound healing, lead to amputation and even death. In patients with extensive PAD the degree of impairment of arterial inflow may be of such a degree that it substantially impedes drug delivery.

Objective
We have developed a percutaneous retro-perfusion method for the delivery of high levels of antibiotic to the limb in an isolated and targeted manner for the treatment of limb infection.

Methods
Gentamicin was delivered to the ovine hind limb (4 mg/kg) using the retro-perfusion technology, a ‘closed’ recirculatory catheter system that draws blood from the arterial system and delivers it to the vein via an oxygenator. Samples of muscle, bone and synovial fluid of the hind limb were collected at 30 and 60 min post administration of gentamicin. Gentamicin levels obtained in the tissues were compared to ante-grade recirculation (venous to arterial) or intra-venous (IV) infusion.

Results
There was a significantly greater concentration of gentamicin observed in the skeletal muscle of limbs receiving the antibiotic via retro-perfusion at 30 and 60 min post administration compared to both ante grade recirculation and IV delivery, (30 min: retro 0.021±0.009, ante 0.005±0.001, I.V 0.002±0.001; 60 min: retro 0.024±0.008, ante 0.004±0.001, I.V 0.003±0.001 mg/L p<0.05). Blood chemistry data collected during the procedure was within normal parameters. This is a safe and effective method for delivering antibiotic to the limb.

(Study was funded by a Victorian Govt Market Validation Program with Osprey Medical Inc – MB, DS & DK are stockholders.)
A REVIEW OF RURAL AGEING WELL INTERVENTIONS

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Background
The need to support the health and wellbeing of older people is increasingly being recognised, particularly in light of population ageing. Evidence-informed ageing well intervention strategies should take into consideration the possible impact of contextual factors such as rurality-urbanity.

Objectives
In order to assess the current knowledge base, a review of rural ageing well interventions is being conducted as part of an NHMRC Partnership project on Aged Support and Aged Care: Programs and policy to support rural ageing well.

Method
Relevant electronic databases (CINAHL, APAIS-Health, ATIShealth, Health & Society, Health Collection, Indigenous Health, RURAL, OvidSP Proquest, PubMed) were searched for original, rural-based intervention studies published in English from 2004 to February 2014.

Results
After the removal of duplicates, the search resulted in 9892 unique references. An initial scan resulted in the removal of 9,101 references, leaving 791 references related to rural ageing well. This dataset was then reviewed to identify articles specifically involving ageing-related interventions in rural settings. Twenty papers met the inclusion criteria for this review, covering diverse areas including mental health, community cohesion and befriending schemes with little or no replication of findings, with the exception of physical activity programs which have been trialled in several rural areas.

It is clear from the review of the literature completed to date that there is a distinct lack of published evidence on ageing well interventions in rural settings. A stronger, more comprehensive body of evidence is required to support healthy ageing in the rural context.
Hey-Cunningham, W\textsuperscript{1,3}, Dermody, N\textsuperscript{2,5}, Brew, BJ\textsuperscript{2,3}, Koelsch, K\textsuperscript{1,3}, Cysique, Lucette\textsuperscript{2,3,6}

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\textsuperscript{6}Neuroscience Research Australia, Sydney, Australia

Background
While the HIV reservoir in PBMC (peripheral blood mononuclear cells) may contribute to the pathogenesis of HIV-associated dementia (HAD), it is unclear whether it contributes to non-demented HIV-associated neurocognitive disorder (HAND), which is more common in chronic HIV infection.

Objectives
To establish the contribution of HIV DNA in PBMC in chronically HIV-infected patients with HAD and non-demented HAND.

Methods
Eighty individuals with chronic HIV infection on antiretroviral therapy (>97% with undetectable HIV RNA) underwent assessments of neurocognition and cognitive reserve at two visits 18 months apart. HIV DNA in PBMC was measured by real-time PCR at the same time-points.

Results
At baseline, 46% of the patients had non-demented HAND; 75% had HAD. At follow-up, neurocognitive function declined in 14%, and this was more likely in HAD (p<.03). Low cognitive reserve was uniquely associated with HAD (p<.05). Log HIV DNA copies were 5.2±1.4 at baseline and 5.1±1.4 per 10\textsuperscript{6} PBMC at 18 months (r=.73). Baseline HIV DNA was not associated with HAD or non-demented HAND. Baseline HIV DNA was higher in those with longer duration of infection and lower cognitive reserve (interaction: \(= .25; p<.05\); adjusted for CD4+ T-cells). Change in HIV DNA between study time-points was modestly associated with a decline in motor-coordination, \(r=-.26, p<.03\); and semantic fluency, \(r=-.25, p<.03\). Our results corroborate that PBMC HIV DNA plays a role in HAD pathogenesis. Further, we show for the first time that this is moderated by cognitive reserve. In conclusion, the main pathogenic factor of non-demented HAND remains to be elucidated.
DECISION-MAKER PERCEPTIONS OF THE GET HEALTHY INFORMATION AND COACHING SERVICE

Whelan, ME\textsuperscript{1}, Goode, AD\textsuperscript{1}, Eakin, Elizabeth\textsuperscript{1}, Hickman, IJ\textsuperscript{2,3}, Reeves, MM\textsuperscript{1}

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Background
Providing weight management services to the growing number of hospital patients who are overweight/obese remains a challenge; particularly as participation in hospital-based programs, such as group-based weight loss programs, if they exist, is generally quite low. A strong body of evidence supports the efficacy of telephone-delivered lifestyle and weight loss programs. The translation of this evidence into practice as an alternate model of service delivery for hospital outpatients is warranted.

Objectives
Among key health care decision-makers, to examine awareness and suitability of the Get Healthy Service (GHS; a free six-month, telephone-delivered lifestyle program, now offered in almost all states of Australia) for referral of hospital outpatients for weight management.

Method
Ten key decision-makers from metropolitan and rural Queensland Health hospitals took part in semi-structured telephone interviews that were audio-recorded, transcribed verbatim, and thematically analysed.

Results
Interviews revealed that most decision-makers had a limited awareness of the GHS but perceived the telephone service to be suitable for patients’ referrals, along with other existing services offered by the hospitals. Incorporating GHS referrals into patient care was seen to be relatively easy, with most interviewees suggesting that they would provide a GHS brochure to patients who could then self-refer into the service.

Conclusions
Increased practitioner awareness and a more integrated approach to referrals would likely result in improved uptake of the Get Healthy Service into routine practice in the hospital outpatient setting, and therefore facilitate patient uptake of this free, evidence-based service.
PULMONARY REHABILITATION IN COPD: A CASE FOR EARLIER INTERVENTION

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Background
Pulmonary rehabilitation (PR) has been successful in managing many aspects of chronic obstructive pulmonary disease (COPD) while failing to provide clinically significant improvements in lung function. Recommendations that PR be offered to all patients, irrespective of the severity of their disease, will become untenable as the incidence of COPD increases. Earlier intervention, where an attempt is made to preserve as much lung function as possible during the early stages of the disease, may offer a solution. Results from two recent pilot studies, that used manual therapy (MT) to increase chest wall flexibility in moderate to severe COPD, reported greater short and medium term improvements in lung function and exercise capacity for participants receiving MT and exercise (Ex) compared to Ex alone.

Objectives
To investigate the long-term effects of manual therapy and exercise intervention in mild COPD.

Method
Phase III clinical trial currently underway in a NSW public hospital. Two hundred and two participants with mild, stable COPD will be randomly allocated to two groups: Ex and MT+Ex. Outcome measurements collected over 48 weeks include lung function, exercise capacity, quality of life, anxiety and depression, chest wall expansion and systemic biomarkers. Intervention consists of: 36 Ex sessions over 18 weeks and 15 MT sessions over 6 weeks. All MT is administered just prior to Ex.

Results
If successful this approach may offer a way of reducing long-term demand for PR and provide part of the solution to the looming shortfall in services.
THE IMPACT OF TWICE DAILY MOISTURISING FOR SKIN TEAR PREVENTION

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Background
Skin tears are reported to be the most common preventable wound amongst older adults, in hospitals and residential facilities. Skin tears are related to the physiological skin changes associated with ageing, and the increased incidence of skin trauma and increased manual handling requirements amongst this population. The implicit and explicit costs associated with skin tears for health providers and individuals are significant.

Objectives
To investigate the effectiveness of twice daily application of moisturiser when applied to limbs for reducing skin tears amongst elderly patients in a Queensland private hospital and aged care residents in Western Australia.

Method
A skin tear incidence survey was conducted prior to the implementation of twice daily moisturiser to the limbs of 871 elderly consenting patients admitted to two wards in the Queensland hospital over a 12 month period. A cluster randomized control study was conducted across 14 Western Australian aged care facilities (980 beds) over 6 months. These facilities were matched in terms of bed numbers and whether they provided high or low care. Consenting residents in 7 matched facilities were randomised to receive the application of twice daily moisturiser and residents in the 7 control facilities continued with usual care.

Results
The hospital study revealed 60 patients sustained 96 skin tears and demonstrated an overall reduction in skin tears of 53% associated with the intervention. The aged care study revealed 424 residents sustained 1396 skin tears and demonstrated a 50% reduction in skin tears in the intervention group. Cost savings were demonstrated in both groups.
HEALTHY LIVEABLE COMMUNITIES: BRIDGING GAPS BETWEEN EVIDENCE, POLICY AND PRACTICE


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Background

Growing evidence suggests that creating ‘liveable’, pedestrian-friendly communities may reduce non-communicable diseases and health inequity by encouraging active living. However, translating health-related evidence to those sectors responsible for creating the built environments (planning, transportation) is challenging. The new NHMRC Centre of Research Excellence (CRE) in Healthy Liveable Communities was established to create and disseminate evidence, aligned with planning and transport policy and practice.

Objectives

The CRE aims to generate and exchange data, knowledge and information across five themes: 1) measurement of policy-relevant built environment (BE) features associated with leading chronic disease risk factors (physical activity, obesity), health outcomes (CVD, diabetes) and mental health; 2) causal relationships for BE interventions using data from longitudinal studies and natural experiments; 3) ‘thresholds’ for BE interventions; 4) economic benefits of BE interventions designed to influence health and wellbeing outcomes; and 5) factors, tools, and interventions that facilitate the translation of research into policy and practice.

Method

Our multi-disciplinary team covering seven disciplines, will work with multi-sector national and state (WA, Qld, Vic) Advisory Groups (AGs) comprised of government, industry and NGOs. To ensure policy-relevance and facilitate research translation, the AGs will provide advice and input into new and ongoing research; advise on knowledge translation plus facilitate and advocate for research uptake. A data management platform and translation tools will be developed to support communication and exchange of data.

Results

Following the national CRE launch in March 2014, the national and state AGs have been established and lessons learnt to date will be shared.
Poster board number: 12
DISSEMINATION OF A BEHAVIOUR CHANGE INTERVENTION - THE OPTIMAL HEALTH PROGRAM

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Background
Despite a large evidence base documenting the efficacy of telephone-delivered interventions for physical activity (PA) and/or dietary change, little is known about their translation into public health practice and whether they can produce similar outcomes when delivered in ‘real-world’ settings.

Objectives
The adoption of the Logan Healthy Living Program; a 12-month telephone-delivered intervention for PA and healthy eating by a local division of general practice afforded the opportunity to address these gaps.

Method
The translated program, rebadged as the Optimal Health Program (OHP), aims to promote PA, healthy eating and weight loss in overweight adults without chronic disease. General practices are recruited by OHP staff and general practitioners (GPs) refer patients into the program. Participants receive a tailored workbook, pedometer, and 22 counseling calls tapered over 12 months. At baseline, 6-, and 12-months, objective clinical data are collected via GPs and self-report diet and PA data are collected via telephone. Paired t-tests were conducted to assess within-person change from baseline to 12-months (end-of-program).

Results
After 2.5 years, the program received 377 referrals; 317 (84%) patients consented (74% female; 46.4 ± 11.8 years; BMI = 37.0 ± 7.7 kg/m²), with 88 completing 12-month assessments. Among completers, a statistically significant improvement between baseline and end-of program was observed for weight [mean change (SE) -5.4 (7.0)kg] and waist circumference [-4.8 (9.7)cm], underpinned by significant physical activity and dietary change. Findings support the acceptability of the OHP within community practice and show promising effectiveness for those who remain in the program.
Poster board number: 13

KNOWLEDGE TRANSLATION IN DEMENTIA RESEARCH: A PLANNING TOOL FOR THE AUSTRALIAN SETTING

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Background

Addressing the “know-do” time lag requires knowledge translation (KT) tools fit for purpose, context and audience. There is no ‘plain English’ KT planning tool for the wide variety of stakeholders in dementia/aged care in Australia.

Objectives

1. To revise and adapt the “Innovation 2 Implementation” (I2I) knowledge translation tool (original workbook guide developed by the Canadian Mental Health Commission) for use in Australian dementia and aged care;
2. To trial the revised tool with practitioners in dementia care attending the KT workshop series for the Dementia Training and Studies Centres (DTSC) in partnership with the Dementia Collaborative Research Centres, Australia

Method

The original I2I was used as core material in two workshops during 2013. On the basis of user feedback, the 7-step I2I was revised into an Australian adaptation meeting the objectives. In addition three new topical sections have been added:

- “Is this Innovation KT ready”
- “Readiness for change”
- “Disseminating new knowledge”

Results

Early feedback suggests that the revised I2I fills a gap by meeting the needs of practitioners planning local innovation roll out in dementia/aged care. This sector is undergoing significant change during the Federal “Living Longer Living Better” reforms 2013. Workshops trialing the revised I2I are scheduled for June 2014, and will be reported on.
Poster board number: 14

NO TIME OR LOW PRIORITY? BARRIERS TO EVIDENCE BASED PRACTICE

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Background
Evidence based practice (EBP) is a key principle in the delivery of effective and high quality health care. Existing research suggests that Allied Health professionals are generally welcoming of EBP, but rarely participate in activities associated with EBP.

Objectives
To explore barriers to evidence based practice among allied health professionals and managers in a large metropolitan health service.

Method
This mixed-method study used 8 focus groups of allied health professionals and managers to explore the attitudes and barriers to EBP as well as a questionnaire examining participants’ perception of their skills, knowledge, attitude and barriers to EBP using Likert scales. Qualitative data was analysed using a thematic analysis of focus group transcriptions. Questionnaire data were analysed descriptively.

Results
50 clinicians and 10 managers across 7 allied health disciplines participated in the study. The questionnaire indicated that clinicians have a positive attitude but low participation in EBP. Qualitative data suggests that EBP is not highly valued by clinicians and managers or viewed as a core component of clinical care, with activities directly related to maintaining patient flow viewed as higher priorities. Lack of skills and resources, and difficulty associated with implementing evidence into practice are further barriers. Achieving higher uptake of EBP amongst allied health clinicians requires a cultural shift, placing higher value on these activities despite the challenging context of constant pressures to increase patient flow.
Poster board number: 15

THE JOURNEY FROM PRIMARY DENDRITIC CELL DISCOVERY TO THERAPEUTIC TRIAL

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The discovery of interstitial dendritic cells (DC) in tissues, combined with Steinman’s fundamental discovery of mouse spleen DC, suggested a unique network of antigen presenting cells. Our early experiments showed that depleting DC from transplanted organs prolonged graft survival. The first monoclonal antibodies (mAb) to target donor DC also extended rat allograft survival modestly. The definition of human DC and generation of mAb to human DC surface molecules furthered our knowledge of DC biology and established that DC activation was a critical event in driving allogeneic T cell responses. Changes in DC were shown to be related to graft versus host disease (GVHD) after clinical allogeneic haematopoietic cell transplantation (alloHCT) and, the expression of CMRF-44 and CCR5 as biomarkers of DC activation, predicted for acute GVHD. Having elaborated the hypothesis that depleting activated DC at the time of alloHCT might reduce detrimental GVHD and preserve protective anti-pathogen and anti-leukaemic responses, we tested the effect of polyclonal antibodies to the DC activation antigen CD83 in xenogeneic and allogeneic models of GVHD. The anti-CD83 antibodies prevented GVHD and preserved anti-viral and anti-leukaemic activity. Building on this data, we worked with our network of colleagues to manufacture an affinity matured fully human anti CD83 mAb. Current evaluation in preclinical models confirms its ability to deplete activated human DC and preserve anti-viral T cells. Having protected the relevant intellectual property, we are currently seeking peer reviewed and commercial funding to initiate an Australian, first in man, study of this novel approach to immunosuppression.
Poster board number: 16

TRANSLATING RESEARCH EVIDENCE TO IMPROVE COMMUNICATION IN HOSPITAL FOR PATIENTS WITH CHRONIC DISABLING HEALTH CONDITIONS: MOVING RESULTS INTO FUNDING POLICY AND PRACTICE

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This research is funded by the NHMRC Project Grant 2013-2017 APP1042635.

Background

Improving the safety of the most vulnerable patients in hospital is a high priority in any self-improving health system. Patients with severe communication disabilities face a three-fold increased risk for patient safety incidents in hospital. However, little is known of the causes of the increased risk and ecologically appropriate interventions to ameliorate this risk.

Objectives

To identify factors within the patient, staff, caregivers, and the health environment that impact on patient safety for adults with severe communication disabilities.

Method

1. Patient cases: In-depth interviews with adult patients with communication disability who has experienced a patient safety incident and their carer.
2. A search of the NSW Statewide patient safety database (IIMS) by Patient Medical Record Number for each case, for any incident reports relating to that case.
3. A medical record chart review of each case by Patient Medical Record Number for evidence of the safety incident in the target hospital admission.
4. A review of the patient’s accommodation service written records for evidence of any notes relating to the case and target incident reported in hospital.

Results

To date, we have collected data on 10 adult participants with severe communication disabilities who have experienced adverse events in hospital. Two of the ten experienced preventable harmful incidents which were captured in all four data sources. These two cases will be presented in detail with factors compared across the data sources. Findings will be discussed in relation to emerging new policies on the care of adults with disabilities in hospital.
Poster board number: 17
SKIN CANCER EARLY DETECTION - CONSUMER-FOCUSED APPROACHES

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Objectives
Skin Cancer (including melanoma and keratinocyte cancers) is the most common and most costly cancer in Australia. We aimed to develop an internationally known program of research in skin cancer prevention and early detection.

Design and setting
We conducted randomised behavioural trials of technology-delivered skin cancer prevention or early detection interventions to high-risk target groups, including young people at risk of sunburn and older men at risk of not being aware of their skin and at risk finding their melanomas late.

Participants
We included between 500 and 930 participants in our trials, most commonly recruited via the electoral roll. We used validated questionnaires and data from medical records to assess relevant skin cancer-related attitudes, intentions and behaviours. We included health economics measurements where possible.

Results
We observed significant changes in skin cancer-related behaviours, including improvements in sun protection, skin-self-examination and asking doctors for a whole-body skin examination, as well as increase in skin cancers found. We are currently establishing the cost effectiveness of these interventions, and working on business models to allow effective transfer into viable long-term skin cancer prevention and detection models. The technology-driven interventions are usually low cost and easily scalable and well accepted by the target populations.

Conclusions
Skin cancers is a major public health problem in Australia and several groups worldwide and in Australia are working on improving outcomes from these cancers. The methods used in the behavioural trials to be presented may serve as a methodological guide in international cancer prevention research.
POSTER ABSTRACTS

Poster board number: 18

IMPLEMENTATION OF INTERVENTIONS TO IMPROVE STROKE CARE IN A TERTIARY REFERRAL TO HOSPITAL: BARRIERS, FACILITATORS AND KEY RESOURCES

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Background

Following the publication of the NHMRC Clinical Stroke Guidelines in 2010 there has been little change in the outcomes of the National Stroke Audit.

Objectives

Over two years various interventions were implemented in the inpatient stroke service to address areas in which care was less than optimal according to the national stroke guidelines.

Methods

Protocols were developed to improve door to needle time for patients receiving thrombolysis. This included education of the emergency department nursing and medical staff and liaison with radiology. Checklists and education on the wards were used to improve secondary prevention of stroke. Recommended screening tools for depression were trialled.

Results

Simple interventions are effective in reducing door to needle time and improving secondary prevention of stroke at discharge. High turnover of nursing and junior medical staff makes sustainability of interventions difficult. Screening for depression in the acute setting is difficult and requires the appropriate tool. Stroke and Neuroscience Clinical Nurse Consultants are a major facilitator to the initiation and sustainability of interventions due to their continuity, knowledge and respect by both nursing and junior medical staff.
Poster board number: 19

NEXT GENERATION IMPLANTS HARNESING PERIOSTEUM’S REGENERATIVE POWER

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Background
Critical sized bone defects due to trauma, tumour resection, debridement after infection, and congenital abnormalities pose a currently intractable challenge in reconstructive surgery. In addition to their significant financial cost, surgeries and complications associated with defect repair diminish a patient’s quality of life and productivity. Furthermore, the current state of the art for repairing long bone segmental defects involves grafting of tissue, which is associated with risks including disease transmission and immunogenicity (allograft), as well as donor site morbidity (autograft). New approaches to treat such defects leverage the endogenous capacity of stem cells, natural tissue builders that inhabit the periosteal and intramedullary niches, as well as novel materials and architectures.

Objectives
Our objective is to define technical specifications and physiotherapy protocols for next generation implants that harness physiological loads to deliver biological factors including cells and biochemical cues.

Method
We use novel experimental methods to study human periosteum as a cellular habitat and to elucidate mechanically modulated lineage commitment and tissue building by periosteum-derived stem cells (PDCs). Finite element models and gait analysis allow for development physiotherapy protocols to enhance tissue genesis and remodeling.

Results and Discussion
Our approach is paradigm shifting, as the current standard of care is to pack tissue defects with graft, which has been shown recently in ovine long bone defects to impede the ingress of PDCs and thus retard healing. Our ultimate goal is to maximise de novo tissue generation and healing by minimising resistance to cell ingestion and proliferation and to maximize extracellular matrix (ECM) secretion by ingressing cells.
Poster board number: 20

COLLABORATION AND INNOVATION IN PROMOTING OUTCOMES FOR STROKE CARE ACROSS AUSTRALIA

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Background
Stroke is a leading cause of death and disability. Data monitoring systems identify significant evidence practice gaps despite the existence of national guidelines. Multifaceted strategies to improve the translation of evidence into practice are required.

Objectives
The National Stroke Foundation (NSF) develops guidelines, supports data collection, and provides education and quality improvement (QI) initiatives in Australia. Other groups are also active in this space and the overlapping activities create challenges: multiple, conflicting datasets, poor data linkage, ‘definition creep’ and increased clinician burden. Data is not currently linked to QI support. Outcomes, successes and challenges of working across multiple stakeholders and programs will be presented.

Method
The Australian Stroke Coalition (ASC), a group of stroke groups and professional colleges, is overseeing the creation of an online tool so stroke data (clinical and research) can be collected and linked via a single source. The NSF is creating a technology solution that will link this data tool to the guidelines and QI activities so clinicians have an integrated digital resource to enhance knowledge and support QI activities.

Results
A national approach of quality guideline development, integrated data collection and monitoring and quality improvement strategies can lead to significant improvement. Importance of mechanisms to reach consensus and collaboration with all stakeholders is fundamental to successful translation. The opportunity of integrating guidelines, data collection and implementation support via electronic platforms is planned to maximise the uptake of evidence-based practice.
Poster board number: 21
DOES IT TAKE ONE TO KNOW ONE? DOING CONSUMER-FOCUSED HEALTH RESEARCH

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Background
Health service consumers’ involvement in research has traditionally been as ‘object’, with little consultation about how research problems are defined and prioritised. In a period of ever decreasing research resources, there is increasing pressure to conduct research that has genuine translational value. Consumer involvement in research is evolving towards a more meaningful space, beyond one in which they are mere objects of enquiry, to one where they are actively included in all aspects of the research process and its translation. However, their inclusion continues to be challenged in some sectors of the health research community. This is particularly so for mental health research, but is apparent across research with chronic disease populations more broadly.

Objectives
The presentation seeks to present a range of arguments for greater involvement of health consumers in the planning, conduct, evaluation and translation of research.

Method
The presenter will use a range of examples drawn from her own experience of conducting mental health and chronic disease research with health care consumers to demonstrate her arguments.

Results
By actively including health service consumers in the research process, translation to practice will be more authentic and effective. Such research can investigate the difficult issues that confront the health sector, with honesty and greater potential trust arising from collaboration between researchers, service providers and recipients of services. Failure to genuinely include consumers in research leads to the perpetuation of rhetoric-laden, token outcomes which waste valuable research resources, hinder effective translation, and stifle efforts to improve delivery of care.
Poster board number: 22

IMPROVING HEALTH CARE IN DIABETES AND CHRONIC KIDNEY DISEASE: HOSPITAL HEALTH PROFESSIONALS’ VIEWS

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Background
Health-care of patients with diabetes and chronic kidney disease (CKD) is challenging and often sub-optimal.

Objectives
We explore ways to improve health-care by examining key processes in these patients’ management.

Materials and Methods
Health professionals from 4 hospitals in Melbourne and Sydney were purposively sampled. Thirty-six participants were recruited into 6 focus groups. Maximal variation sampling ensured representation of endocrine, renal and allied health professionals. Eight Diabetes and Renal unit heads completed semi-structured interviews to triangulate findings. Discussions were conducted until data saturation was reached and were transcribed verbatim. Data analysis was completed using an inductive, thematic approach.

Results
All participants perceived that the following key features influenced the management of diabetes and CKD: 1) Patient self-management; 2) Patient access to health-care; 3) Communication; 4) Coordination and integration of care including between primary and tertiary health-care and 5) Health services having a preventive approach. Unit heads also described the importance of quality and improvement measures within a health service. Disparity in opinions between health professionals and unit heads emerged regarding the accessibility of tertiary health services and communication between health professionals. Unit heads thought that services were accessible and that communication was not a barrier.

The management of patients with diabetes and CKD is an interplay between hospital and community health-care and patient self-management. An ideal model of care requires an accessible well integrated, multidisciplinary hospital and community health service underpinned by strong communication and referral pathways, and quality assurance/improvement activities. This, together with good health professional-patient communication may empower patient self-management and improve outcomes.
Poster board number: 23

IMPROVING FUNCTIONAL INDEPENDENCE IN THE CHRONIC PERIOD AFTER STROKE

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Background
Stroke imposes one of the largest burdens of disease. There is no cure. Rehabilitation remains the only option to overcome the devastating and chronic loss of independence and mobility.

Objectives
To compare improvements in upper-limb function promoted by a novel protocol, Wii-based Movement Therapy (WMT) with current best practice, Constraint-induced Movement Therapy (CIMT).

Methods
Forty-two patients, 2-45 months post-stroke were randomly allocated to receive an equivalent dose of either WMT or CIMT. Formal therapy was delivered on 10 consecutive weekdays with progressively increasing home practice. Therapy content was individually tailored according to patient impairment and progress. Primary outcome measures of more-affected upper-limb use were the Wolf Motor Function Test timed-tasks (WMFT) and the Motor Activity Log Quality of Movement subscale (MALQOM) assessment of independence in everyday tasks.

Results
The treatment groups were equivalent for age, time post-stroke and functional ability. There was no difference between treatment arms for any measure using linear mixed model analyses. Repeated measures ANOVAs demonstrated the stability of baseline assessments in this chronic cohort; the maintenance of improvements at 6-month follow-up; and the significantly improved functional movement (WMFT, p<0.001) and independence in activities of daily living (MALQOM, p<0.001) immediately after therapy. However, there was a clear patient preference for WMT. Similar WMT outcomes have been demonstrated in pilot studies after stroke with delivery via broadband internet to rural Australia (n=1), and after incomplete spinal cord injury (n=3). Increased independence in the chronic period post-stroke will help alleviate the human, social and economic burden of stroke.
VALIDITY OF A SELF-REPORT SURVEY TOOL MEASURING THE NUTRITION AND PHYSICAL ACTIVITY ENVIRONMENT OF PRIMARY SCHOOLS

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Background
Valid tools measuring characteristics of the school environment associated with the physical activity and dietary behaviours of children are needed to accurately evaluate the impact of initiatives to improve school environments.

Objectives
The aim of this study was to assess the validity of Principal self-report of primary school healthy eating and physical activity environments.

Method
Primary school Principals (n = 42) in New South Wales, Australia were invited to complete a telephone survey of the school environment; the School Environment Assessment Tool – SEAT. Equivalent observational data were collected by pre-service teachers located within the school. The SEAT, involved 65 items that assessed food availability via canteens, vending machines and fundraisers and the presence of physical activity facilities, equipment and organised physical activities. Kappa statistics were used to assess agreement between the two measures.

Results
Almost 70\% of the survey demonstrated moderate to almost perfect agreement. Substantial agreement was found for 10 of 13 items assessing foods sold for fundraising, 3 of 6 items assessing physical activity facilities of the school, and both items assessing organised physical activities that occurred at recess and lunch and school sport. Limited agreement was found for items assessing foods sold through canteens and access to small screen recreation. The SEAT provides researchers and policy makers with a valid tool for assessing aspects of the school food and physical activity environment.
Postboard number: 25

EFFECTIVENESS OF A MULTI-STRATEGY INTERVENTION IN INCREASING THE IMPLEMENTATION OF VEGETABLE AND FRUIT BREAKS BY AUSTRALIAN PRIMARY SCHOOLS: A NON-RANDOMIZED

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Background

Limited evidence exists describing the effectiveness of strategies in facilitating the implementation of vegetable and fruit programs by schools on a population wide basis.

Objectives

The aim of this study was to examine the effectiveness of a multi-strategy intervention in increasing the population-wide implementation of vegetable and fruit breaks by primary schools and to determine if intervention effectiveness varied by school characteristics.

Method

A quasi-experimental study was conducted in primary schools in the state of NSW, Australia. All primary schools in one region of the state (n=422) received a multi-strategy intervention. A random sample of schools (n=406) in the remainder of the state served as comparison schools. The multi-strategy intervention to increase vegetable and fruit breaks involved development and provision of: program consensus and leadership; staff training; program materials; incentives; follow-up support; implementation feedback. Comparison schools had access to routine information-based Government support. Data to assess the prevalence of vegetable and fruit breaks were collected by telephone from Principals of the intervention and comparison schools at baseline (2006-2007) and 11-15 months following the commencement of the intervention (2009-2010).

Results

At follow-up, prevalence of vegetable and fruit breaks increased significantly in both intervention (50.3% to 82.0%, p<0.001) and comparison (45.4% to 60.9% p<0.001) schools. The increase in prevalence in intervention schools was significantly larger than among comparison schools (OR 2.36; 95% CI 1.60-3.49, p <0.001). The findings suggest that a multi-strategy intervention can significantly increase the implementation of vegetable and fruit breaks by a large number of Australian primary schools.
A FLEXIBLE USER-FRIENDLY ONLINE FORMAT FOR CANCER CLINICAL PRACTICE GUIDELINES

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Background
Clinical practice guidelines (CPGs) promote translation of research into clinical practice. As a lead national cancer control organisation, Cancer Australia has published evidence-based guidelines in hardcopy and online.

Objectives
The aim was to establish a flexible, accessible web-based publishing platform to facilitate more efficient and effective development, dissemination, accessibility and updating of topic-specific guidelines developed for the management of cancer.

Method
A customised digital publishing platform has been developed using a single-source approach in Extensible Markup Language (XML). New topic-specific CPGs have been developed by Cancer Australia on the management of breast and ovarian cancer.

Results
The online format developed has enabled topic-specific CPGs to be more user-friendly, with easy navigation using tailored content structuring. The online html format is more searchable and enables links to related resources. The format has also enabled online interactive external consultation during the guideline development phase, facilitating stakeholder engagement. Reviewers can comment on the guideline online and reply to other reviewers’ comments.

Recent CPGs published in the online format by Cancer Australia include: Recommendations for the management of early breast cancer in women with an identified BRCA1 or BRCA2 gene mutation or at high risk of a gene mutation and Recommendations for the management of central nervous system (CNS) metastases in women with secondary breast cancer.

This web-based publishing platform has facilitated development and access to CPGs. Development and dissemination of topic-specific CPGs for cancer promotes the translation of research and uptake of evidence-based best practice care, leading to improved outcomes for patients.
Poster board number: 27

RE-THINKING END-POINTS FOR CARDIOVASCULAR PRIMARY PREVENTION TRIALS IN THE ELDERLY - ASPREE AS A WORKING EXAMPLE

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on behalf of the ASPREE Study Group

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Background
Cardiovascular clinical trials focus their clinical endpoints on major cardiovascular events. The movement towards the primary event being a composite endpoint is driven by an overall reduction in the number of events in younger age groups due to increased uptake of preventive therapeutic and lifestyle factors, meaning larger numbers of older persons are now being recruited for cardiovascular primary prevention trials. How appropriate is a focus on cardiovascular events alone in this group?

Objectives
The ASPREE (ASPirin in Reducing Events in the Elderly) Study is a primary prevention trial of low dose aspirin (100 mg) versus placebo in 19,000 persons ≥65 years of age being conducted in Australia and the US and funded primarily by the National Institute of Aging.

Method
ASPREE was initially designed as a cardiovascular outcome trial with a primary endpoint focused on cardiovascular events. It was recognised that a focus on CV events in the elderly did not fully capture the clinically important attributes of healthy life in older people. Obviously all-cause mortality is important and, for older people, avoiding dementia and physical disability were identified as the key objectives for health maintenance. Cardiovascular events remain important as secondary endpoints and are likely key precipitating events influencing survival, disability and cognitive decline. However, in primary prevention trials in the elderly where multimorbidity is often present, patient oriented outcomes which encapsulate the totality of risks and benefits of therapy may be a more appropriate focus for clinical trials.

Results
To May 9, 2014 16,732 participants enrolled.
Poster board number: 28

CLINICAL LEADERSHIP - LEADING THE WAY TO PROVIDE EVIDENCE BASED CARE

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Background
The promotion and increase in uptake of evidence-based practice within an organization requires significant leadership at every level. Leadership is not only in the domain of managers. A key component to effect positive changes to service delivery and patient outcomes is clinical leadership among frontline clinicians who provide direct patient care. To facilitate the development of clinicians to become clinical leaders, clear objectives are necessary towards which a curriculum of training can be developed.

Objectives
To develop a checklist of attributes and characteristics of clinical leaders.

Method
Three stages:
1. Literature review to develop draft attributes of clinical leadership.
2. Focus groups with wound nurses about what they need to translate evidence into practice.
3. Focus group discussion involving academics and clinicians to analyse the literature and focus group data to form a pilot checklist.

Results
Key attributes of clinical leaders include the ability to be a role model, inspire a shared vision, challenge the status quo, enable others to act, encourage trust and commitment. The skills and knowledge clinical leaders need are to have understanding health policy, using data to create a culture of safety and quality; and understanding of their own and their teams roles and responsibilities.

Application
This checklist of attributes, skills and knowledge have been developed to identify what is necessary in order to lead, in order improve their ability to effect change and increase the translation of evidence into practice. The next step is to validate the checklist.
Poster board number: 29

RELATIONSHIP BETWEEN CHRONIC DISEASES AND SEVERE SEPSIS RELATED MORTALITY AMONG ELECTIVE SURGICAL PATIENTS IN NSW

Ou, Lixin, Chen, J, Hillman, K

Objective
To evaluate mortality related to severe sepsis among elective surgical patients with chronic disease by Charlson Comorbidity Index scores and four individual chronic diseases.

Methods
We conducted a population-based study on elective surgical patients from 82 public acute hospitals in New South Wales, Australia between 2002 and 2009. We used Poisson regression models to derive relative risk ratios (RRs) after adjusting for a range of patient and hospital characteristics.

Results
Of the 4,362,624 elective surgical admissions in our study, there were 1,168,562 (26.8%) cases with at least one chronic disease during study period. Among these cases, we identified 4,000 cases (3.4 cases per 1,000 admissions) developed severe sepsis after surgical procedures, and 1,517 (37.9%) patients died in hospitals after operations. The higher the Charlson Index scores, the greater risk for dying (no comorbidity as reference; score 1~2: RR=1.2, 95%CI: 1.04-1.40; score 3: RR=1.5, 95%CI: 1.24-1.72; score 4 and greater: RR=1.62, 95%CI: 1.40-1.88). Compared to patients without chronic diseases, those who had congestive heart failure were 10.5-fold (95%CI: 9.6-11.3) likely to develop severe sepsis in hospital, and were 1.2-fold (95%CI: 1.09-1.36) likely to die after operations. Patients with peripheral vascular disease and chronic obstructive pulmonary diseases were more likely to develop severe sepsis, but no differences in mortality compared with non-comorbidity cases. Cancer was a significant indicator to severe sepsis (RR=4.8, 95%CI: 4.44-5.17) and mortality rate (RR=1.3, 95%CI: 1.18-1.51).

Conclusion
chronic diseases were significantly related to severe sepsis. Some of chronic diseases significantly contributed to hospital mortality among surgical patients.
Poster board number: 30
A CONDUIT BETWEEN EPIDEMIOLOGICAL RESEARCH AND REGIONAL HEALTH POLICY

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Background
The development of effective policies and strategies for supporting better health builds on good quality evidence. Healthy Together Geelong, an arm of the State Government’s Healthy Together Victoria initiative, is tasked with addressing the underlying causes of poor health outcomes in Geelong and to strengthen the regional preventive health system. Detailed evidence regarding the health status and lifestyle behaviours of the Geelong population is imperative for this purpose.

Objectives
Relevant data have been generated independently by the Geelong Osteoporosis Study (GOS), a cohort study which has documented health data in the region for over twenty years. We aimed to transform detailed clinical and lifestyle data from a research setting into a useable form to support translation to strategies for encouraging healthy lifestyle choices and service planning within local government.

Method
The GOS is an ongoing large population-based cohort study that prospectively documents clinical, socio-demographic and lifestyle behaviours from adults who were randomly selected from electoral rolls. The most recent GOS follow-up phases provided evidence about patterns of unhealthy diet, physical inactivity, smoking and harmful alcohol use. These factors are well-recognised modifiable risk factors for chronic disease; the dataset was complemented with prevalence estimates for musculoskeletal disease, obesity, diabetes, cardiovascular disease, asthma and cancer.

Results
Data were provided in aggregate form according to age, sex and suburb. The data exchange was a conduit between epidemiological research and policy. Importantly, rather than relying on national or state health surveys, regional policy makers were informed by local evidence, thereby optimising intervention strategies.
CLINICAL PATHWAYS FOR ANXIETY AND DEPRESSION IN CANCER: IMPLEMENTATION BARRIERS

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Background
Anxiety, depression and distress are common in people with a recent cancer diagnosis. Some will experience symptoms as a chronic disease even many years after their initial diagnosis. International evidence exists about the significant barriers to screening for distress and implementing clinical pathways may help to overcome such barriers. There are no Australian clinical pathways to address these symptoms.

Objectives
This presentation will explore barriers and enablers to implementing a clinical pathway for distress. The presentation will briefly summarise the pathway development process and describe the outcomes of qualitative interviews with oncology health professionals.

Method
Qualitative semi-structured interviews were conducted with 12 multi-disciplinary clinicians from oncology nursing, psychology, social work and medicine (psychiatry, oncology, palliative care, general practice). Experts reviewed the pathway prior to the interview. Transcripts were coded using NVIVO software and analysed for emerging themes.

Results
Nine themes were identified, three related specifically to implementation barriers and enablers and education and training strategies. Barriers were evident at patient, provider, organisational and system levels, including reluctance, responsibility for screening and interventions, lack of resources and time and lack of policy initiatives and clinical leadership. Enablers focused on educational and training initiatives to encourage uptake and change management strategies.

In developing pathways, the processes involved are as important as the content; pathways must engage stakeholders to be feasible and acceptable. These pathways will only be of benefit if they are successfully implemented. Therefore, they must be adaptable to diverse cancer care settings and accompanied by an implementation plan.
Poster board number: 32

PROBLEM-SOLVING THERAPY IN LOW VISION REHABILITATION: PATIENT AND PROVIDER EVALUATION

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Background
Depression is a common problem in people with vision impairment, but despite the availability of evidence-based interventions and its association with further functional decline, it is rarely treated. We implemented and evaluated a new model of care within Vision Australia’s low vision rehabilitation services. Selected Vision Australia staff received training to deliver problem solving therapy for primary care (PST-PC), an evidence-based treatment for depression.

Objectives
1. To evaluate staff perspectives of training in PST-PC delivery and determine factors influencing its implementation.
2. To assess client outcomes and satisfaction with PST-PC when integrated into low vision services.

Method
Staff evaluation: Skill acquisition was tracked and qualitative interviews conducted before the training, immediately following training and 3-6 months post-training.

Client evaluation: A single-group, pre/post-intervention design. Outcome measures included validated measures of depressive symptoms (PHQ-9) and quality of life (AQoL).

Results
Of the 20 staff members who commenced PST-PC training, 14 completed and 6 withdrew. A range of practical, client and staff factors were identified as influencing implementation, and specific challenges in practice were identified.

Following the PST-PC sessions, client PHQ-9 scores reduced significantly (p<0.001) and by a clinically meaningful degree (Pre M=10.67 vs. Post M=5.67). Vision-specific QoL improved following the PST sessions (p<0.001). Improvements were also observed for the independent living (p=0.022), mental health (p=0.001) and coping (p=0.025) AQoL domains. Client satisfaction with PST-PC was high and 94% strongly agreed that they would recommend PST-PC to others with vision impairment and all clients reported that they would participate in PST-PC again.
IMPACTFUL ONLINE EDUCATION TO ENHANCE PATIENT CARE

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Background
The Opioid Treatment Accreditation Course (OTAC) is an online course that takes a novel approach to supporting behaviour changing knowledge transfer, which ultimately will be utilised to improve patient care outcomes for opioid dependent patients wishing to seek Opioid Substitution Treatment (OST). It was redeveloped in 2012, since this time 143 participants have undertaken the course.

Objectives
The OTAC had a threefold objective. Firstly, to disseminate key knowledge to new and inexperienced OST prescribers, with a particular focus on guideline dissemination. Secondly, to allow participants to contextualise this knowledge in the generalised clinical setting. Thirdly, to allow participants to re-contextualise this knowledge in the context of their own general practice or prescribing setting, to have the maximum behaviour change impact.

Method
The OTAC adopted a novel online education model, which could flexibly and effectively be utilised to meet the three underlying objectives of the module. In order to disseminate guidelines and other key information the OTAC developed a Knowledge Hub filled with key resources and other links. Additionally, a Qstream spaced based learning module was developed to enable learners to contextualise their knowledge. Finally, to allow learners to decontextualise their new knowledge a Professional Practice Forum was built to explore the issues around OST and patient care in a personalised way.

Results
Over the period of the study 143 learners enrolled to complete the OTAC, of which 111 satisfactorily completed it. Based on the course evaluation the majority of participants found the format of the online course engaging and enjoyable. Additionally, the content was presented in a way in which they believed it could be effectively applied to their personal setting to the benefit of their patients.
Poster board number: 34

NOVEL OBESITY TREATMENT APPROACH - TARGETING BRAIN RECEPTORS WITH CHAMPIX™

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Background

Obesity is a growing epidemic worldwide. It is estimated that annual costs arising from obesity-related illnesses exceed $56.6 billion dollars in Australia alone, with 80% of the Australian population predicted to be overweight and obese by 2025. Sugar directly contributes to significant weight gain and therefore obesity.

Objectives

Sugar is as addictive as alcohol and nicotine and the main goals of our research are to translate these findings into novel treatments for patients.

Methods

We use well-established pre-clinical models such as the two bottle choice in rodents with predictive validity to investigate the therapeutic value of FDA-approved drugs that target key regions in the brain. For the purposes of this study we have also employed electrophysiology and imaging to characterise the morphological changes in the brain in relation to sucrose consumption.

Results

Our lab has recently shown that sucrose directly targets brain nicotinic receptors in the nucleus accumbens, a key brain region associated with reward. Furthermore, we also show sucrose consumption changes the morphology of these neurons. We have, also demonstrated that the FDA-approved nicotine cessation medication, Champix™, reduces sugar addiction in animals by targeting the mesolimbic reward pathway of the brain. As the compound is FDA-approved, we are planning small-scale proof-of-concept studies in humans. Taken together, our results demonstrate a completely novel treatment strategy for weight control associated with sugar addiction but equally importantly highlight the brain reward centre as a promising consideration in developing treatment approaches for obesity.
Poster board number: 35

IMPROVING RESEARCH TRANSLATION THROUGH LIVING EVIDENCE RESOURCES IN TRAUMATIC BRAIN INJURY

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Background
Research translation requires the generation of knowledge, ideally in the form of evidence from systematic reviews. Monash University is designated as the knowledge hub for a large European consortium and is using the opportunity to pilot the conduct of living systematic reviews in traumatic brain injury. This involves teams of people committed to maintaining high quality, up to date systematic reviews facilitated by novel software tools and review methods.

Objectives
To develop and maintain up to date high quality ‘living evidence reviews’ on the most important questions in TBI.

Method
Teams of novice reviewers, supported by content and methodology experts, have been convened and will be responsible for a suite of systematic reviews. We have undertaken author training and prioritised review topics. Online review workflow tools are facilitating the timely delegation of review tasks to dispersed groups of authors. We anticipate the use of large and evolving authorship teams, including novel participation methods such as expert crowdsourcing. Search updates will be frequent, allowing for reviews to be continuously updated, with new evidence incorporated as it is published. We are aiming to publish online and in peer-reviewed journals to enable the creation of truly living reviews.

Results
Nine systematic reviews are being undertaken on key topics in TBI prognosis, epidemiology and management. When complete, these reviews will feed into clinical practice guidelines and clinical decision support tools with a view to supporting best practice research translation.
Poster board number: 36

ASSESSING APPROPRIATENESS OF DIAGNOSTIC CORONARY ANGIOGRAPHY - INSIGHTS FROM THE CADOSA REGISTRY

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Background
In 2012, the American College of Cardiology/American Heart Association established clinical appropriateness use criteria for patients undergoing diagnostic angiography based upon current clinical practice guidelines. The criteria rank appropriateness on a scale of 1-9, which are categorized into three groups with a respective median score being 1-3 (Inappropriate), 4-6 (Uncertain if inappropriate/appropriate) and 7-9 (Appropriate).

Objectives
Determine appropriateness scores for diagnostic catheterisation procedures undertaken in South Australia (SA) in 2012.

Method
The Coronary Angiogram Database of South Australia (CADOSA) is a comprehensive registry of all public angiograms procedures performed in SA. The prevalence of appropriate, uncertain, and inappropriate cases was determined for (i) all angiogram procedures undertaken in 2012 and (ii) by angiographic findings in relation to significant ($\geq 50\%$) coronary artery disease (CAD)

Results
The proportion of appropriate, uncertain, and inappropriate procedures was 79\%, 16\% and 5\% respectively for $N=2997$ procedures in 2012. For angiograms that revealed significant CAD (75\% of procedures), the proportion of appropriate, uncertain, and inappropriate procedures was also 79\%, 16\% and 5\% respectively. This did not vary when examining appropriateness for angiograms that revealed insignificant non-obstructive CAD (stenosis $\leq 50\%$). This analysis has showed that irrespective of the coronary angiogram findings, the majority of diagnostic angiogram procedures in SA public hospitals are appropriate. With the changing culture in health policy, these appropriateness assessments will become more important. Future research analysing patient outcomes for indications rated as appropriate and inappropriate will help ensure the equitable and efficient allocation of resources for cardiac catheterization.
EVALUATION OF ACUTE MYOCARDIAL INFARCTION PERFORMANCE MARKERS - INSIGHTS FROM THE CADOSA REGISTRY

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Background
Despite substantial improvements in the use of evidence-based, guideline-recommended therapies for patients with acute myocardial infarction (AMI), significant gaps and variations in care remain.

Objectives
To evaluate the application of best care according to the American College of Cardiology and American Heart Association (ACC/AHA) Performance Measures in a population of ST-elevation AMI (STEMI) patients undergoing primary percutaneous coronary intervention (PCI) in South Australian tertiary hospitals.

Method
The Coronary Angiogram Database of South Australia (CADOSA) is a comprehensive registry of all public cardiac catheterization procedures performed in South Australia (SA). Data for 2012 ST-elevation AMI (STEMI) patients undergoing primary PCI was used to evaluate the application of best treatments and strategies.

Results
The 2012 registry data included 355 procedures that were undertaken for primary PCI. Of these, 22% were on female patients and the average age was 62±12 years. Pre-activation of cath lab by ambulance services was observed in 20% of cases. A STEMI code was activated in 68% of patients, with the median time from hospital arrival to code activation 18 minutes (IQR 92). The median time to primary PCI was 62 minutes (IQR 53). Discharge therapies included: aspirin 91%, beta-blockers 58%, statin 87%, and ace-inhibitor or angiotensin receptor blocker 82%. Evaluation of left-ventricular function was undertaken in 30% and 72% received a cardiac rehabilitation referral. South Australian public hospitals promptly provide PCI. Around two-thirds of STEMI patients are referred to outpatient cardiac rehab programs, although other evidenced based AMI treatments may be suboptimal, in particular discharge medications.
Poster board number: 38
ENABLING BETTER ACCESS TO INNOVATIVE THERAPIES THROUGH EFFECTIVE BUSINESS MODELS

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Background
State of art facilities and expertise are often required for delivery of innovative therapies to patients; thereby limiting treatment access to within metropolitan areas. This scenario not only limits access but also increases costs to rural patients in terms of travel and accommodation, especially when extended periods of observation or treatment are required. Prior research into regenerative medicine based therapies has indicated superior cost benefit outcomes over conventional treatments. However universal access to current innovative therapies is not well supported.

Objectives
Our research seeks to determine if improved dialogue between those involved in business model development and clinical development would result in the translation of innovative therapies that are accessible by patients regardless of demographics.

Method
Case study method has been adopted, with semi-structured interviews conducted with participants along the clinical translation and healthcare delivery value chain. Interviews are transcribed and content analysis conducted using Nvivo software to address the research question.

Results
Our findings support the view that improved interactive dialogue between those involved in business model development and clinical development can result in more effective translation of innovative therapies. Business models are holistic accounts of value proposition, cost structures, entities involved from sourcing to administering treatment and strategy to realize the therapy’s potential. Key considerations that facilitate universal access can be reinterpreted as non-clinical objectives during the clinical development process. Overcoming access challenges in delivering treatment to rural patients may also result in new innovations in service and treatment delivery.
POSTER ABSTRACTS

Poster board number: 39

TRANSLATING COMPRESSION RESEARCH TO IMPROVE HEALING OUTCOMES IN AUSTRALIA

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Background
In 2010, more than 400,000 Australians are treated for active venous leg ulcers. The cost to the health system is almost $3 billion per year. Venous leg ulcers (VLU) are the most common cause of chronic lower limb ulceration in Australia. Prevalence is estimated between 1.65 to 1.74%. VLU are common in adults aged 65 and older, a population expected to grow substantially, but more recently due to the increase in obesity and diabetes clinicians are treating a younger population as VLU incidence is growing. Estimated increased life expectancy means more people will be living with a VLU by 2025. Compression therapy is best practice treatment to heal VLU although it is not always applied by clinicians or adhered to by patients. We evaluated the safety and efficacy of a simple to apply, three layer tubular bandage compression (3L).1

Objectives
To measure the safety and efficacy of 3L compression and to report on translation into practice from clinician and patient perspectives.

Methods
This multi-centre randomised controlled trial recruited participants in 4 hospital outpatient wound clinics in Victoria and Queensland, Australia.

Results
The 3L compression was safe and effective. Patients reported better tolerability and increased compliance to the 3L compression. Clinicians reported the 3L compression was cost-effective, easy to apply, and patients were more likely to adhere to the 3L compression to facilitate healing in community and sub-acute settings.

EVALUATION OF THE TRANSLATION OF GESTATIONAL DIABETES NUTRITION GUIDELINES INTO PRACTICE

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Background
Poorly controlled gestational diabetes mellitus (GDM) can result in negative pregnancy outcomes and an increased risk of type 2 diabetes. Reduced insulin requirements were documented in the validation of American GDM Nutrition Practice Guidelines, which recommend at least 3 dietitian visits. No Australian GDM nutrition guidelines exist.

Objective
To implement a dietetic model of care based on the American guidelines in an Australian hospital.

Method
Theory-driven barrier assessment and implementation design informed the intervention. The study consisted of a 9-month pre (usual care)/post (new model of care) design with a month for ‘integration’ across 2012-2013. Primary outcomes were dietetic schedule adherence and requirement for pharmacotherapy.

Results
Both phases ran for only 7 months; integration required 4 months. Pre-implementation, only one of the 91 women seen received >1 appointment. Significantly more women received best-practice (BP) care post-implementation (50.6%, p = 0.02). However, due to heavy clinical demand, only 31.5% of the 162 women seen after the change in practice received individual dietetic care at their first visit, deviating from BP. Clinically-relevant changes were seen in medication requirements; the percentage of women requiring pharmacologic treatment decreasing from 31.1% (pre) to 26.9% (post). The difference was more pronounced in women who received BP care (25%) vs not BP (27.2%).

Conclusions
This project successfully increased the proportion of women seen according to best practice. Service limitations impaired the delivery of optimal care. Full adherence to the model of care may have resulted in greater changes in medication requirements.
PROPOSING A NEW KNOWLEDGE TRANSLATION TOOL FOR COMPLEX PUBLIC HEALTH PROBLEMS

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Complex public health problems require multi-dimensional policy responses. This often involves legislation, regulation, enforcement, incentives, changing socio-cultural norms, and programs of multiple packaged interventions. In turn, these need to be integrated into dynamic health and political environments. Knowledge translation tools attempt to facilitate the use of evidence to guide policy design but often don’t meet the needs of decision makers addressing complex public health problems. This presentation will discuss the analytic and methodological limitations of current knowledge translation approaches. It will propose an alternative but complementary ‘systems’ tool which integrates diverse evidence sources and provides a platform for virtual testing of policy scenarios in order to design public health solutions that are efficient, effective and equitable.
RESEARCH OUT-PUT AND CITATION OF PUBLIC HEALTH RESEARCH BY TRANSLATION STAGE

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Background
The National Institute of Health recently defined 4 phases (T1-T4) of research translation, the final 3 of which are relevant to public health research. T2 research is concerned with the development and testing of new interventions, typically under research conditions. T3 is research investigating the uptake and implementation of evidence based guidelines, policies or programs. T4 research involves evaluation of the effectiveness and cost effectiveness of such interventions as they occur in practice.

Objectives
The aim of this study was to describe the characteristics of public health research published in peer reviewed journals. As a measure of impact, we will also report the characteristics of such research associated with greater citation.

Method
All manuscripts published in 10 randomly selected public health journals over 1 year (2008) were audited. Citation rates for all manuscripts were calculated using Scopus. We extracted the following characteristics from included studies: cause of death focus (non-communicable, communicable, injury), study type (descriptive, measurement, intervention), research design, reporting of data on disadvantage populations, and number of manuscript authors.

Results
Of the 1193 manuscripts reviewed, 77% were characterised as relating primarily to T2, 18% to T3 and 4% to T4. Approximately half of all research publications across the translation phases had a non-communicable disease focus. Significantly more research in T2 and T3 were interventions trials (28-29%) compared with T2 (7%). Research addressing issues of measurement accounted for between 0-3% across the translation stages. Cross sectional studies were the most common research design. Randomized trials and systematic reviews represented approximately 7% and 8% of all publications respectively but were the most frequently cited research design. There were few differences in citation rates between translation stages. The findings suggest that, despite similar rates of citation, the predominance of public health research is focused on T2 studies.
A RCT OF AN INTERVENTION TO IMPROVE IMPLEMENTATION OF A HEALTHY CANTEEN POLICY

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Background
Nutrition guidelines and policies governing the availability of foods in school food services, canteens and kiosks have been recommended to improve public health nutrition. A number of Australian governments have released mandatory policy requiring government schools to ban the regular sale of unhealthy foods and beverages from canteens. Despite such policies, research suggests that most schools fail to implement healthy canteen initiatives.

Objectives
To assess the effectiveness of interventions to improve the implementation of a healthy canteen policy in NSW primary schools.

Method
The study employs a pragmatic randomized controlled trial design. Schools in the Hunter New England region of NSW were randomised to receive one of two supportive interventions to assist implementation of a healthy canteen policy: a) canteen manager training, resources, menu audit and feedback, academic detailing; b) audit and feedback and resources; or c) a waitlist control. The primary trial outcome is the proportion of school canteens with menu items compliant with the NSW Healthy Canteen policy. Data will be collected using a comprehensive menu audit by trained dieticians. Data will be collected at baseline and 12 month follow-up.

Results
The follow-up data collection is scheduled for Term 1 2015. Mid-point process data, however, suggests that there have been significant improvements in the proportion of canteen menus compliant with the canteen policy within the intervention group. Preliminary findings suggest that the intervention effect size is greater among school receiving the more comprehensive intervention. Both interventions were considered acceptable to school canteen managers. The findings suggest that with sufficient support, the implementation of healthy canteen policies is feasible.
IMPACT OF OBESITY AND DIABETES TRENDS ON INCIDENT DISABILITY IN ELDERLY AUSTRALIANS

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Background
In recent decades, obesity and diabetes prevalence has increased amidst a rapidly ageing population with likely impact on healthy ageing.

Objective
We aimed to estimate possible preventable incident disability in the elderly from hypothetical reductions in prevalence of obesity and diabetes in mid-life using data from the Australian Diabetes, Obesity and Lifestyle Study (AusDiab).

Methods
Participants aged 45-65 years who were free of disability at baseline (1999/2000) with available disability information at, or died before follow-up (2011/12) were included (n=1982). We fitted a multinomial logistic regression model (outcomes: alive with no disability, disability or death 12 years later), identifying predictors at baseline (age, sex, obesity, smoking, diabetes and hypertension) of disability and death. Coefficients for predictors were used to estimate the study population’s risk of disability and death over 12 years. We compared these risks to hypothetical populations with 50% less obesity and diabetes at baseline (2000) to approximate prevalence in 1980.

Results
Obesity and diabetes increased the risk of disability (OR 3.83 (95% confidence interval (CI) 2.19-6.70), (OR 1.98 (95% CI 1.12-3.52) respectively) and death (OR 1.86 (95% CI 1.17-2.95)), (OR 1.67 (95% CI 1.17-2.95)). Our study sample had a 12-year 9% risk of developing new disability and 7% risk of death. A hypothetical halving of obesity and diabetes prevalence at baseline led to a 19% and 7% reduction in 12-year risk of disability and death respectively.

Conclusions
If obesity and diabetes prevalence in 2000 was half of that observed, middle age Australians would have developed 19% less disability by 2012.
THE FOOD PURCHASING ENVIRONMENTS OF AUSTRALIAN PRIMARY SCHOOLS CANTEENS

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Background
Schools represent a valuable setting for interventions to improve children’s diets as they provide broad reach to children and offer structured opportunities for ongoing intervention. Evidence suggests that modification of school food environments can significantly improve purchasing of healthy foods. Despite this, little is known regarding the implementation of strategies to improve purchasing of healthy foods by students in canteens of primary schools in Australia.

Method
A telephone interview was conducted in 2012/2013 with canteen managers of primary schools located in the Hunter New England region of New South Wales. Canteen managers were asked whether i) they priced food competitively; ii) included only healthy foods in meal deals; iii) positioned healthy foods at eye level; iii) labelled menus and iv) reviewed their menu annually to provide healthier options. Dietitians also audited canteen menus to assess the availability of healthy options.

Results
Overall, 221 canteen managers completed the interview and provided menus. 79% reported pricing food competitively to increase purchasing of healthier options, 25% included only healthy foods in meal deals, 78% positioned healthy foods at eye level, 43% labelled their canteen menus to identify healthier options, and 91% reviewed their menu annually. Only 24% of menus provided primarily healthy foods (≥ 50%).

Conclusion
Opportunities exist to improve the food purchasing environments of primary school canteens. Canteen managers should be better supported to implement practices such as including healthy foods in meal deals, labeling healthy food options and providing healthier options on their menu.