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## Plenary Session 1

09:00-10:20 Monday 2 December 2013, Lambton 1-3

Chair: Gregor Coster

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10:50-12:20 Monday 2 December 2013, Lambton 1

Chair: Margaret Kelaher

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Chair: Mark Booth

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<i><sup>1</sup>University of Northern British Columbia, School of Health Sciences; <sup>2</sup>University of British Columbia Centre for Health Services and Policy Research; <sup>3</sup>University of British Columbia School of Nursing, Critical Research in Health and Health Care Inequities; <sup>4</sup>University of Northern British Columbia, School of Nursing; <sup>5</sup>Northern Health Authority, British Columbia</i>	
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10:50-12:20 Monday 2 December 2013, Lambton 3

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10:50-12:20 Monday 2 December 2013, Featherston

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<i><sup>1</sup>School of Population Health, University of Queensland; <sup>2</sup>School of Medicine, University of Queensland; <sup>3</sup>Metro South Mental Health Service, Woolloongabba; <sup>4</sup>School of Population Health, School of Medicine, and Health LinQ, University of Queensland; <sup>5</sup>Griffith Institute of Health, Griffith University; <sup>6</sup>Queensland University of Technology; <sup>7</sup>Centre for Health Policy, Programs and Economics, School of Population Health, University of Melbourne</i>	
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<i><sup>1</sup>Queensland Centre for Mental Health Research; <sup>2</sup>School of Population Health, University of Queensland</i>	

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10:50-12:20 Monday 2 December 2013, Rosanna

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10:50-12:20 Monday 2 December 2013, Wellington

Chair: Lynne Russell

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## 2A Methods

13:30-15:00 Monday 2 December 2013, Lambton 1

Chair: Jaikishan Desai

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<i><sup>1</sup>University of Auckland; <sup>2</sup>Synergia Consulting, Auckland</i>	
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13:30-15:00 Monday 2 December 2013, Lambton 3

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13:30-15:00 Monday 2 December 2013, Featherston

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## 2E Service Delivery

13:30-15:00 Monday 2 December 2013, Rosanna

Chair: Laura Wilkinson-Meyers

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<i><sup>1</sup>University of Sydney; <sup>2</sup>University of New South Wales; <sup>3</sup>University of Technology Sydney; <sup>4</sup>Sacred Heart Hospice Sydney</i>	
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<i><sup>1</sup>Centre for the Study of Choice (CenSoC), University of Technology, Sydney; <sup>2</sup>Barwon Health</i>	
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<i><sup>1</sup>Menzies Centre for Health Policy, University of Sydney, Victor Coppleson Building (D02), Sydney; <sup>2</sup>The George Institute for Global Health, PO Box M201 Missenden Road, Sydney; <sup>3</sup>Waikato Institute of Technology, Hamilton; <sup>4</sup>Calvary Health Care Bethlehem, Caulfield</i>	
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<i><sup>1</sup>Freemasons' Department of Geriatric Medicine, University of Auckland; <sup>2</sup>Department of Statistics, University of Auckland; <sup>3</sup>Department of Health Systems, University of Auckland; <sup>4</sup>School of Population Health, University of Auckland</i>	

## 2F Indigenous Health

13:30-15:00 Monday 2 December 2013, Wellington

Chair: Amohia Boulton

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<i><sup>1</sup>Healthy Mothers Healthy Families Research Group, Murdoch Childrens Research Institute; <sup>2</sup>Victorian Foundation for Survivors of Torture; <sup>3</sup>General Practice and Primary Health Care and School of Population Health, University of Melbourne</i>	
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<i><sup>1</sup>South Australian Health &amp; Medical Research Institute; <sup>2</sup>Baker IDI Heart &amp; Diabetes Institute; <sup>3</sup>George Institute for Global Health; <sup>4</sup>Inala Indigenous Health Service; <sup>5</sup>Wuchopperen Health Service; <sup>6</sup>Tharawal Aboriginal Corporation Aboriginal Medical Service; <sup>7</sup>Menzies School of Health Research</i>	

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<i><sup>1</sup>South Australian Health and Medical Research Institute for Global Health; <sup>2</sup>Baker IDI Heart &amp; Diabetes Institute; <sup>3</sup>University of Northern British Columbia; <sup>4</sup>George Institute for Global Health; <sup>5</sup>Menzies School of Health Research</i>	
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<i><sup>1</sup>Inala Indigenous Health Service; <sup>2</sup>Baker IDI Heart &amp; Diabetes Institute; <sup>3</sup>University of Canterbury; <sup>4</sup>South Australian Health and Medical Research Institute; <sup>5</sup>Menzies School of Health Research</i>	

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## 4A Quality and Safety

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<i><sup>1</sup>University of Adelaide; <sup>2</sup>Flinders University; <sup>3</sup>University of Sydney</i>	

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<i><sup>1</sup>Centre for Health Policy, Programs and Economics, University of Melbourne; <sup>2</sup>Clinical Practice Unit, Basil Hetzel Institute for Translational Health Research, South Australia; <sup>3</sup>Health Economics and Social Policy Group, School of Nursing and Midwifery, University of South Australia</i>	
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<i><sup>1</sup>Sydney School of Public Health, University of Sydney, Sydney NSW 2006; <sup>2</sup>School of Population Health, University of Melbourne, Melbourne VIC; <sup>3</sup>Sydney and South Western Sydney Local Health District</i>	
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<i><sup>1</sup>Deakin University; <sup>2</sup>Murdoch Childrens Research Institute; <sup>3</sup>Royal Children's Hospital; <sup>4</sup>University of Melbourne; <sup>5</sup>University of Newcastle; <sup>6</sup>University of Exeter</i>	
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## 4C Service Delivery

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<i><sup>1</sup>Australian Institute of Health Innovation, University of New South Wales, Sydney; <sup>2</sup>The Demographer's Workshop, Sydney; <sup>3</sup>Faculty of Medicine, University of New South Wales, Sydney</i>	

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<i><sup>1</sup>School of Nursing and Centre for Health Services and Policy Research, University of British Columbia; <sup>2</sup>Institute of Health Policy, Management and Evaluation, University of Toronto; <sup>3</sup>Department of Family Medicine, Faculty of Medicine, University of Ottawa; <sup>4</sup>Manitoba Centre for Health Policy, University of Manitoba; <sup>5</sup>Health Quality Council of Alberta</i>	

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<i><sup>1</sup>Australian Institute of Health Innovation, University of New South Wales, Sydney; <sup>2</sup>The Demographer’s Workshop, Sydney; <sup>3</sup>Faculty of Medicine, University of New South Wales, Sydney</i>	
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## Plenary Session 1

09:00-10:20, Monday 2 December 2013, Lambton 1-3

Chair: Gregor Coster

### Challenges in NZ Health Care in Difficult Times

Geraint Martin

CEO, Counties Manukau District Health Board

PL1.1

No abstract was available at the time of publication.

### Health Research to Fight Disparities

Jeffrey L. Reading

University of Victoria, Canada

PL1.2

Innovators say 'There is nothing so powerful as an idea whose time has come'. For several decades social theorists have agreed on an idea; that the pathway for improved health and well being for Indigenous Peoples' is through self-determination. Health research must bridge community conceptual world-views for solutions to be embraced and translated into improved health. For Indigenous Peoples' colonial policies imposed rules that frequently violated the traditional value of maintaining respectful, mutually beneficial relations. Hence, colonial policy has come to mean constraints of foreign origin. Research has taken on similar negative associations as inquiry conducted by outsiders, harvesting information that is translated into distorted representations of the Indigenous People's experience, and policies that limit the arena for self-determined action. The fight for research to eliminate disparities in health must not repeat errors of the past by assuming to know what Indigenous Peoples need and want but, on the contrary, connecting with those deep currents of awareness and sensibility that live on in contemporary community life.

## 1A Health Policy and Governance

10:50-12:20, Monday 2 December 2013, Lambton 1

Chair: Margaret Kelaher

### Towards a Systemic Understanding of Health Service Transformation

Jeff Foote<sup>1</sup>, Sue Dasler<sup>2</sup>, Maria Hepi<sup>1</sup>, Graeme Nicholas<sup>1</sup>

<sup>1</sup>Social Systems Group, Institute of Environmental Science and Research; <sup>2</sup>Personal Health Service Improvement, Ministry of Health

1A.1

#### OBJECTIVES

To determine what enables or hinders whole system change by determining how various institutional, organizational, professional and individual mechanisms co-create service outcomes.

#### METHODS

A case study of a major reinvestment in NZ child/adolescent oral health services to focus service delivery on prevention, early detection and population health outcomes. A stakeholder workshop, seven key informant interviews with individuals involved in the reinvestment programme and four focus group interviews with staff implementing the new model of care provided data to develop a mode of how the different institutional, organizational and professional mechanisms co-create service outcomes.

#### LESSONS LEARNED

To date research on barriers and enablers of health service reorientation has been descriptive and focused on presenting organisational symptoms rather than developing theoretically robust understandings of the factors that facilitate or inhibit change. Our model highlights the various ways that institutional, organizational, professional and individual mechanisms enable or hinder change. This research underlines the importance of developing *systemic models* to make complexity discussable.

#### IMPLICATIONS

Reorienting health services is high on the policy agenda of many countries including New Zealand and Australia. However, the transformation of existing models of care to focus on prevention and early detection has proved elusive and there is a pressing need to develop evidence-based frameworks to support health service transformation.

### Developing Clinical Governance Systems in Rural and Remote Primary Healthcare — A Multiple Case Study Approach

Ru Kwedza<sup>1,2</sup>, Julie Johnson<sup>1,2</sup>, Nicholas Zwar<sup>3</sup>, Sarah Larkins<sup>4</sup>

<sup>1</sup>Australian Institute of Health Innovation, University of New South Wales; <sup>2</sup>Centre for Clinical Governance Research, University of New South Wales; <sup>3</sup>School of Public Health and Community Medicine, University of New South Wales; <sup>4</sup>School of Medicine and Dentistry, James Cook University

1A.2

#### OBJECTIVES

Clinical governance is a system by which boards, managers and clinicians are accountable for continuously achieving and maintaining high quality and safety environments. The study explores current clinical governance in rural and remote primary healthcare, aiming to elucidate the barriers and enablers to implementing good clinical governance and develop an acceptable model of clinical governance.

#### METHODS

The study uses a multiple case study methodology suitable for research in a dynamic environment, particularly given national and jurisdictional reforms. Cases are defined as a whole PHC service. Methods include semi-structured interviews, document analysis, non-participant observation and an online survey. Cases include four primary health care facilities in two regions, with two regional clinical governance committees also included.

#### LESSONS LEARNED

With limited resources in health services it is important to investigate efficient governance processes whilst maintaining high quality and safety. Early findings illustrate: variation in terminology and articulation of clinical governance; potential areas for efficiencies; existing gaps in current models; and a strong commitment from policy, boards, managers and clinicians towards the implementation of clinical governance. Incorporating known enablers and mitigating barriers and incorporating flexibility to local contexts are a practical approach to developing a model for clinical governance implementation.

#### IMPLICATIONS

As new governance arrangements continue to develop in the Australian health care environment it is vital that services continuously review their structures, ensure evidence based approaches are implemented with a clear consideration of context and most importantly that all levels of the organization collaborate in development and implementation of clinical governance.

### Caring for Vulnerable Communities: Third Sector Primary Care Providers in a Changing Policy Environment

Antonia Verstappen

University of Auckland

1A.3

#### OBJECTIVES

To determine the current threats and opportunities facing third sector primary care providers from recent policy changes within the primary health care sector, and how these may impact on primary care accessibility for vulnerable New Zealanders.

#### METHODS

A qualitative approach was used in conjunction with a comprehensive review of the literature and review of grey literature and contemporary sources. Semi-structured interviews were undertaken with six senior health sector leaders who comprised a mixture of expert health professionals, academics and health professionals involved in third sector primary care governance.

#### LESSONS LEARNED

Third sector primary care providers play an important role in the provision of primary care services to vulnerable communities in New Zealand. However, these providers are facing significant challenges from a changing policy environment. From these policy changes, threats and opportunities for these providers have emerged which may affect the progress of these organisations. These policy changes are seeing mergers between PHOs that are causing third sector organisations to lose their ability to pursue independent PHO strategy, and are eroding third sector primary health care services. The erosion of these services is of concern to senior health sector leaders.

## IMPLICATIONS

The loss of third sector primary care providers from the primary care landscape could have serious implications for the health system. If the ability for these organisations to provide services to vulnerable communities is reduced, this raises important policy questions about how the primary care sector will need to respond to meet the needs of these communities.

## Governance at the Interface Between Primary Care and Public Health

*Johanna Reidy*

*Wellington School of Medicine, Otago University, Wellington*

1A.4

### OBJECTIVES

The way in which public health and primary care work together needs to change to respond to changing health need, particularly increases in non-communicable diseases. A key part of working together is governing in an environment where 'command and control' methods of governance are no longer adequate. This presentation reports on research that investigated governance processes for public health initiatives delivered in the primary care setting. The research asked two main questions: what governance processes are operating and what influences these processes? Until now these processes have largely been hidden.

### METHODS

The research was conducted in two phases and aimed to make governance processes between primary care and public health more explicit. The first phase of the study investigated patterns of governance activity in a range of New Zealand primary care/public health projects and initiatives. In the second phase, New Zealand results were discussed with Netherlands and UK experts to see whether phase one findings were applicable beyond New Zealand.

### LESSONS LEARNED

Those working in primary care and public health have different approaches to 'governance' and different conceptions about nature of the 'interface' between primary care and public health which ultimately influence what drives, supports, and frustrates the initiatives shared by primary care and public health.

### IMPLICATIONS

Relationships and an understanding of values are vital to the success of shared governance. Further, governance at the interface is more 'diffuse' than corporate governance, which impacts policy and practical levers to support it.

## Supporting Community-Based Organizations to Reduce Risk: HIV/AIDS Specific Primary Healthcare Services in Select OECD Member Countries

*Jamie Reschny, Josée G. Lavoie*

*University of Northern British Columbia*

1A.5

### OBJECTIVES

Community-based organisations (CBOs) play a critical role in the delivery of primary healthcare (PHC) services for those affected by HIV/AIDS. This presentation will explore the role of CBOs in the provision of HIV/AIDS specific PHC services in selected OECD countries, (i.e. Norway, Sweden, New Zealand, Australia, and Canada) and to provide recommendations.

### METHODS

Drawing from a review of literature, we compared the role of CBOs in addressing HIV/AIDS through PHC service delivery in five countries with HIV prevalence rates of or lower than 0.2%, similar population dynamics, rural and remote regions, Indigenous populations, and similar healthcare systems including CBOs. We compared the nation-states' commitment to CBOs in terms of: (1) meeting the needs of Most At Risk Populations (MARPs); (2) CBOs engagement in developing policy; and, (3) funding sources, programs and allocation of funding specific to CBOs.

### LESSONS LEARNED

CBOs play a significant role in the delivery of HIV/AIDS-specific PHC services in all selected countries. While similarities do exist, we found that Canada, Australia, and to a lesser extent, New Zealand, could greatly benefit from the lessons learned in Norway and Sweden, where the coordination of CBOs by the nation/state health system, as well as

the development of clear mandates are key to the provision of timely PHC services for those at risk of developing and those living with HIV/AIDS.

## IMPLICATIONS

Internationally, many countries with similar demographic characteristics and health systems could greatly benefit from strengthening CBOs through clearer mandates and dependable access to funding.

## Overview of the PATHS Equity for Children Program of Research

*Alan Katz<sup>1,2</sup>, Patricia Martens<sup>1</sup>, Marni Brownell<sup>1</sup>, Dan Chateau<sup>1</sup>, Elaine Burland<sup>1</sup>, Nathan Nickel<sup>1</sup>, PATHS Equity Team Members*

*<sup>1</sup>Manitoba Centre for Health Policy, Community Health Sciences, Faculty of Medicine, University of Manitoba; <sup>2</sup>Department of Family Medicine, University of Manitoba*

1A.6

### OBJECTIVES

To evaluate health and social programs which have been implemented in Manitoba over the past decade to determine whether they improved child health and development, and/or reduced socioeconomic inequities in childhood outcomes.

### METHODS

The Pathways To Health and Social Equity (PATHS Equity) for Children program employs integrated Knowledge Translation, involving scientists from the Manitoba Centre for Health Policy (MCHP), with international scientists, students, clinicians, NGOs and regional and provincial policy-makers. PATHS uses the Data from the Repository housed at MCHP to conduct population-based analyses of 14 separate health and social interventions. As part of these evaluations, we are developing and enhancing existing population-based methodologies on equity measurement, including changes in equity over time. All children born in Manitoba between 1984 and 2010 comprise the cohort (n=537,738), with exposures to the interventions varying across birth cohorts. Program-common and project-specific predictor and outcome variables are developed using health, education and social service data.

### LESSONS TO BE LEARNED

An integrative analysis is planned in the final year of the program, to explore synergies amongst programs, and whether program integration has a differential impact on inequity. Advisory Board members, including key stakeholders, provide context to analyses, and help situate findings within the larger policy context in Manitoba and beyond.

### IMPLICATIONS

Through the PATHS Equity program of research, we will be able to advance knowledge on what works to improve outcomes for children at varying stages along the developmental trajectory, and to identify policies and programs that reduce inequities in developmental health.

## 1B Patient-centred Care

10:50-12:20, Monday 2 December 2013, Lambton 2

Chair: Mark Booth

## Understanding Patients' Preferences for Primary Care Services: Have Discrete Choice Experiments Helped?

*Stephen Goodall, Patsy Kenny, R. De Abreu Lourenco, M. Haas*

*Centre for Health Economics Research & Evaluation, University of Technology Sydney*

1B.1

### OBJECTIVES

The application of discrete choice experiments (DCEs) to elicit patient preferences has increased rapidly over the past decade. This study summarizes the evidence, and critically appraises the use of DCEs, in relation to primary care provision.

### METHODS

A systematic review of the DCE literature was undertaken. Studies were included if they focused on general practice (15), out-of-hours care (4), pharmacy-led care (2), or nurse-led primary care (1).

### LESSONS LEARNED

Study design and attribute elicitation methods differed significantly; as a consequence choice of attributes varied. Common attributes include; time to appointment, duration of consultation, choice of doctor/nurse,

information provided during consultation and location. Quality of care attributes have been limited to; ease of understanding, thoroughness of examination and attentiveness. Policy-related quality measures, such as patient outcomes or percentage of patients (by condition) receiving annual reviews, have largely been ignored.

Cost is rarely included, which may reflect the location of the studies (usually UK) rather than importance. Speed of access is of limited importance, and is generally outweighed by choice of GP (continuity of care) or convenience of appointment. However, this is dependent on the type of health condition (acute versus chronic) and patient characteristics.

#### IMPLICATIONS

Patients have strong preferences for the way general practice is delivered and DCEs provide a useful means of eliciting these priorities. Differences in study design and attributes limit the generalisability of most studies. However it is clear from the studies reviewed that primary care services should be sufficiently flexible to meet different patient requirements.

### Drivers of Overall Satisfaction with Primary Care in England

*Charlotte Paddison<sup>1</sup>, Gary Abel<sup>1</sup>, Martin Roland<sup>1</sup>, Marc Elliott<sup>2</sup>, Gergios Lyratzopoulos<sup>1</sup>, John Campbell<sup>3</sup>*

<sup>1</sup>Cambridge Centre for Health Services Research, University of Cambridge; <sup>2</sup>RAND Corporation, Santa Monica; <sup>3</sup>University of Exeter Medical School

#### 1B.2

#### OBJECTIVES

To determine which aspects of primary care matter most to patients, we identified those aspects of patient experience that show the strongest relationship with overall satisfaction and examined the extent to which these relationships vary by socio-demographic and health characteristics.

#### METHODS

Using data from 2,169,718 primary care patients, linear mixed-effects regression models with interaction terms were used to predict overall satisfaction from six items covering four domains of care: access, helpfulness of receptionists, doctor communication, and nurse communication. Results: doctor communication showed the strongest relationship with overall satisfaction (standardized coefficient = 0.47, 95% CI = 0.48,.048) followed by helpfulness of reception staff (standardized coefficient = 0.22, 95% CI = 0.22,.022). Interactions showed significant but small variation in the importance of drivers across different patient groups.

#### LESSONS LEARNED

For all patient groups, communication with the doctor is the most important driver of overall satisfaction with primary care in England. In contrast, and despite being a policy priority for the English government, measures of access were poorly related to overall satisfaction.

#### IMPLICATIONS

Measurement of the relationship between patient experience and satisfaction helps to identify those aspects of health care experiences that matter most to patients. The primacy of communication with the GP suggests interpersonal aspects of care are the most important priority for patients in primary care in England. The relative lack of priority patients appear to place on access in primary care contrasts markedly with the emphasis on access in recent UK health policy.

### Patient Preferences in General Practice: Important Factors for Choosing a GP

*Patsy Kenny, M. Haas, Stephen Goodall, REFinE Team*

*Centre for Health Economics Research & Evaluation, University of Technology Sydney*

#### 1B.3

#### OBJECTIVES

To identify the information patients value when choosing a general practitioner.

#### METHODS

An online survey of Australian adults was conducted in July 2013; it included questions about their experience of general practice care, the characteristics of the practice and the general practitioner/s (GP) they had visited recently, as well as questions about the characteristics important to their choice of GP. The 2,564 respondents were participants in an online panel.

#### LESSONS LEARNED

Features related to the quality of care provided were most frequently rated as important or very important to the choice of GP (83–92%); these included the provision of information, shared decision making, length of consultation, continuity of care and thorough examinations. The proportion of respondents who valued these features was highest among those with chronic conditions and those who visit the GP frequently. The range of different services (specialist nurses, allied health, pharmacy and pathology) provided by or co-located with the practice were among those least frequently rated as important (33–50%). The availability of specialist nursing and allied health services were more frequently deemed important among respondents with chronic conditions and those who visited the GP frequently (50–61% among those with 12 or more visits in the past year).

#### IMPLICATIONS

Primary care policies should ensure that information to facilitate the choice of provider is available and comprehensible to patients; particularly information about the quality of care provided by individual practitioners. Differing preferences for types of services, suggest that a range of alternative primary care services should be available.

### Achieving Patient-Centred Care While Ensuring Confidentiality in Group Medical Visits: Results from a Qualitative Study

*Josée G. Lavoie<sup>1</sup>, Sabrina T. Wong<sup>2,3</sup>, Meck Chongo<sup>1</sup>, Annette J. Browne<sup>3</sup>, Martha L.P. MacLeod<sup>4</sup>, Cathy Ulrich<sup>5</sup>*

<sup>1</sup>University of Northern British Columbia, School of Health Sciences; <sup>2</sup>University of British Columbia Centre for Health Services and Policy Research; <sup>3</sup>University of British Columbia School of Nursing, Critical Research in Health and Health Care Inequities; <sup>4</sup>University of Northern British Columbia, School of Nursing; <sup>5</sup>Northern Health Authority, British Columbia

#### 1B.4

#### OBJECTIVES

To date, studies assessing the effectiveness of patient-centred care (PCC) have focused on one-on-one clinical consultations, and reported mixed results. This presentation discusses primary healthcare (PHC) services delivered in a group setting, using key dimensions from the PCC literature, including confidentiality. Group Medical Visits (GMVs) offer a novel format for the delivery of PHC services, especially for patients living with complex morbidities.

#### METHODS

Drawing on a large study of GMVs, we report on key format and process-oriented elements identified in GMVs, and on their link to improved outcomes. For the purpose of this study, we interviewed 34 providers and 29 patients engaged in GMVs, delivered in rural, northern and First Nation communities in British Columbia, Canada.

#### LESSONS LEARNED

Our analysis shows that PHC-delivered in a GMV shifts the role of the provider, from that of an adjudicator telling patients how to care for themselves, to that of a facilitator who assists the group in defining norms of self-care based on medical knowledge and on the broader context of patients' lived experience. One of the negotiated group norms is maintaining confidentiality. Peer-patients take on the role of promoting these norms to other patients. This results in increased patient-provider trust, patient confidence, and better patient self-management. We found GMVs increased satisfaction for patients and providers.

#### IMPLICATIONS

GMVs offer an alternative format for the provision of PHC that brings together the benefit of a group process and of a clinical encounter, while delivering on the promises of confidential, high quality, patient-centred care.

### Access to Primary Health Services for Pacific People in the Nelson Bays Region

*Linda Liddicoat, Jane Kinsey*  
*Nelson Bays Primary Health*

#### 1B.5

#### OBJECTIVES

Identify barriers to accessing primary health services faced by Pasifika people in Nelson Tasman and develop a response to improve access to health services for all Pasifika people.



## METHODS

A survey was developed and distributed via in-person visits to homes and workplaces, as well as by mail. The survey asked individuals for opinions on their own health, health services and what stops them or motivates them to access services. There were 71 responses covering many Pasifika groups. Interviews were also held with individual members of the Pasifika Advisory Group addressing issues related to delivery and model of services.

## LESSONS LEARNED

- Key barriers include cost, work, time, communication barriers and lack of understanding/ awareness of services.
- The majority preferred to receive information via oral methods, e.g. at church gatherings.
- Although most respondents were enrolled with a doctor (90%), half of them had not visited within the last year.
- There appeared to be a health literacy issue with many reporting they didn't understand their health provider and the provider didn't understand them.
- There is potential for parents to influence the younger generation regarding beliefs about health and health services.
- It is critical to have a link between the Pacific community and health providers to ensure good two-way communication.

## IMPLICATIONS

The Nelson Bays region has a high seasonal Pasifika workforce, but no specific Pasifika Health Provider. The survey findings will guide our unique situation and help us develop and deliver services that are acceptable, accessible and affordable to our Pasifika population.

## The Place of Reception Processes: Researching the Space Between Community and Primary Care Consultation

*Pat M. Neuwelt<sup>1</sup>, Annette J. Browne<sup>2</sup>, Robin A. Kearns<sup>1</sup>*

<sup>1</sup>University of Auckland; <sup>2</sup>University of British Columbia

### 1B.6

## OBJECTIVES

At the point of entry to the health care system in both New Zealand and Canada sit primary care "medical office assistants" also known as receptionists, who are a seldom studied group. The receptionist literally 'receives' people into care, and is a critical influence in their transformation from a 'person' to a 'patient' or 'client'. The 'waiting room', the literal space between the community and the clinic, also influences people's experiences of care.

This paper presents findings from two related studies in Canada and New Zealand, which explore the question What role do receptionists play in access to primary care for people experiencing the intersecting effects of material and social disadvantages, stigma and discrimination?

## METHODS

Using qualitative research methods, both studies have explored the space of the primary care 'waiting room' and the place of receptionists in engaging with patients. While the studies were carried out independently, this paper presents findings from a research workshop held in October, 2013, which explored common findings and their implications.

## LESSONS LEARNED

The findings, highlight 'reception barriers' to health care access for the most marginalised and high needs groups in both countries. We conclude that the character of both the people and the décor/dynamics of the waiting area can, in combination, influence the degree to which people/patients feel at-ease when experiencing dis-ease.

## IMPLICATIONS

These findings have implications for the training of receptionists and the tailoring of their roles. They have the potential to influence equitable access to health care, and contribute to people's positive experiences of primary health care.

## 1C Health Information Systems

10:50-12:20, Monday 2 December 2013, Lambton 3

Chair: Jonathon Karnon

## On-Line Personal Health Records for Patients with Chronic Disease — What Can We Learn from the Leading US Healthcare Institutions?

*Susan Wells<sup>1,2,3</sup>, Ronen Rozenblum<sup>2</sup>, Andrea Park<sup>2</sup>, Marie Dunn<sup>3</sup>, David Bates<sup>2,3</sup>*

<sup>1</sup>School of Population Health, University of Auckland, Auckland; <sup>2</sup>Department of General Internal Medicine, Brigham and Women's Hospital, Boston; <sup>3</sup>Department of Health Care Policy and Management, Harvard School of Public Health, Boston

### 1C.1

## OBJECTIVES

Patients with chronic disease could gain significantly from accessing personal health records (PHRs) that are connected to their doctor's electronic health record. We aimed to describe the PHRs offered by leading US healthcare organisations and how they are maximizing benefits for this population.

## METHODS

A mixed methods study including semi-structured interviews and a web-based survey was conducted. Eligible institutions were i) identified by experts and ii) high performers in national patient satisfaction surveys. Respondents were leaders implementing PHRs or high risk population management. Using a grounded theory approach we derived thematic categories and used aggregated survey data to provide context.

## LESSONS LEARNED

Interviews were conducted with 30 informants from 16 organizations (81% integrated delivery systems). Nearly all PHRs allowed secure patient-provider communication, increased access to health information, allowed renewal of prescriptions and included preventive care reminders. There were few specific features targeting patients with chronic diseases. While some filtered data by disease condition and patient reported data were increasingly being collected, hardly any tools were available beyond those offered for all. Monitoring of PHR registration and activity was routinely done but without reference to a denominator population or high risk subpopulations.

## IMPLICATIONS

PHRs greatly improve patient access to their clinical team and health information. However, the potential of this technology for patients with chronic disease is underutilised and there is no strategy to extend this tool for multidisciplinary care co-ordination. The significance for population health cannot be achieved without organizations knowing who they serve and monitoring disparities in uptake.

## Using Data to Drive Practice Change. . .the Carrot or the Stick?

*Anna Barker<sup>1</sup>, Renata Morello<sup>1</sup>, Jeannette Kamar<sup>2</sup>, Fiona Landgren<sup>3</sup>, Caroline Brand<sup>1</sup>*

<sup>1</sup>Monash University; <sup>2</sup>Northern Health Melbourne; <sup>3</sup>Southern Health

### 1C.2

## OBJECTIVES

Fall data is often used for benchmarking across hospitals to measure performance and can be used to drive practice change and inform implementation strategies. The objective of this study is to report on how benchmarking and data were used for enhancing the implementation of the 6-PACK program, as part of the 6-PACK falls prevention project [1].

## METHODS

Data were prospectively collected as part of the 6-PACK falls prevention project, from 24 acute wards across six hospitals in Australia. Outcome measures (falls and fall injuries) and process measures (use of falls prevention strategies) were used to benchmark and monitor the implementation of the 6-PACK program. Data sources included daily audits of patient medical records, daily verbal reports from the nurse unit manager and the hospital incident reporting database. Data on falls prevention practices were obtained through structured observation and audits of medical records.

## LESSONS LEARNED

Challenges identified when using falls data for benchmarking included the sensitivity of data sources and the access to timely data and

resources. Process measures can engage staff, identify target areas and gaps in practice, and promote health competition between wards. Audit reminders and feedback were identified as useful tools for ongoing monitoring and time on the floor was essential for identifying local problems and solutions.

#### IMPLICATIONS

Outcome and process measures can be used for benchmarking performance and monitoring the implementation of new programs in the acute hospital setting. Learning's from the 6-PACK project can assist clinicians to design and implement effective falls prevention programs.

#### REFERENCES

- [1] Barker A, Brand C, Haines T, Hill K, Brauer S, Jolley D, et al. The 6-PACK programme to decrease fall-related injuries in acute hospitals: protocol for a cluster randomised controlled trial. *Injury Prevention* 2011;17(4):e5-e5.

### Underutilised and Undeveloped Clinical Information Systems — A Barrier to 'Closing the Gap' in Indigenous Health

*Ross Bailie, Jodie Griffin, Amal Chakraborty, Kevin Swift*  
Menzies School of Health Research

#### 1C.3

#### OBJECTIVES

The Indigenous Chronic Disease Package (ICDP) aims to address the disparities in health outcomes experienced by Indigenous people in Australia. The evaluation framework for the ICDP specified the use of clinical indicator data to assess impact of the ICDP on quality of care and clinical outcomes. This presentation describes the availability and quality of clinical indicator data and explores the barriers and enablers to provision of reliable data.

#### METHODS

Clinical indicator data were requested from primary health care services in 16 regions over five successive six-monthly evaluation cycles over 2010–2012. The suitability of the data for providing indicators of clinical performance was assessed, and in-depth interviews were held with health service staff to explore barriers and enablers to providing reliable data.

#### LESSONS LEARNED

Forty-one different health services provided data for at least one of five successive six-monthly evaluation cycles. Few health services were able to provide reliable and consistent data for the evaluation purposes, largely because of deficiencies in data entered and lack of staff capacity to use these systems to support high quality care for the service population.

#### IMPLICATIONS

Most health services were not able to provide clinical indicator data of adequate quality to assess impact of the ICDP. The limited capability to use clinical information systems also constrained effective implementation of aspects of the ICDP. There is a need for more strategic investment in the effective use of clinical information systems to support delivery of chronic illness care.

### How Do Incorrect Patient Identifiers End up in National Datasets? National Health Index Numbers and PHARMS

*Pauline Norris<sup>1</sup>, Simon Horsburgh<sup>2</sup>, Lianne Parkin<sup>2</sup>, Shih Yen Chang<sup>1</sup>*  
<sup>1</sup>School of Pharmacy, University of Otago; <sup>2</sup>Department of Preventive and Social Medicine, University of Otago

#### 1C.4

#### OBJECTIVES

National Health Index numbers (NHIs) are used for linking information held about a patient on different databases. They are therefore the backbone of IT in healthcare. This study explored how errors can arise in NHIs in PHARMS (the dataset of subsidised prescription medicines).

#### METHODS

An ethnographic study design was used. Interviews and non-participant observations were conducted with those who assign and record NHIs. A purposeful sample of five GP practices and eight community pharmacies were involved. Brief interviews were held with patients who had experienced problems with their NHI number.

#### LESSONS LEARNED

The process of identifying patients is seldom discussed and is taken for granted, but is crucial for accurate records. In day to day practice, establishing the identity of patients is not simple. Identical or similar names, differences in spelling, cultural differences in naming practices, and name changes make establishing patient identification problematic. This is a particular problem for community pharmacies, where there is no formal enrolment process and considerable discretion is given to individual community pharmacists.

#### IMPLICATIONS

Clear guidelines about patient identification need to be established and used. The study shows the importance of checking and seeking further clarification from patients in order to ensure the right patient record is accessed and updated. Regular auditing and updating of patient records is important. Patients should be advised to use the same full name in interactions with healthcare providers, but practice staff also need to record and use all the names given and understand cultural differences in naming.

### Ambulance Databases: Uncoded and Untapped

*Kate Cantwell<sup>1,2,3</sup>, Ameer Morgans<sup>2,4</sup>, Karen Smith<sup>2,3,5</sup>, Michael Livingston<sup>6,7</sup>, Paul Dietze<sup>1,3</sup>*

<sup>1</sup>Burnet Institute; <sup>2</sup>Ambulance Victoria; <sup>3</sup>Department of Epidemiology and Preventive Medicine, Monash University; <sup>4</sup>Department of Community Emergency Health and Paramedic Practice, Monash University; <sup>5</sup>Emergency Medicine Department, University of Western Australia; <sup>6</sup>Drug Policy Modelling Program, National Drug and Alcohol Research Centre, University of New South Wales; <sup>7</sup>Centre for Alcohol Policy Research, Turning Point Alcohol and Drug Centre

#### 1C.5

#### OBJECTIVES

Ambulance services need a standardised method of coding paramedic assessment data to support evidence based research and enable data linkage with other health datasets. This paper examines whether an adaptation of the International Classification of Disease (ICD) system can be applied retrospectively to an ambulance dataset. The study also compares whether ICD coded paramedics assessment data has more clinically relevant detail than the commonly used point-of-call data obtained prior to ambulance attendance.

#### METHODS

Over 1.2 million case records were extracted from the Ambulance Victoria data warehouse. Data fields included MPDS dispatch code, cause (CN) and final primary assessment (paramedic "diagnosis") (FPA). Each FPA was converted to an ICD-10-AM code using word matching or best fit. ICD-10 codes were then converted into Major Diagnostic Categories (MDC). CN was aligned with the ICD-10 codes for external cause of injury.

#### LESSONS LEARNED

Ambulance paramedic assessment data can be aligned with ICD-10 and MDC categories with relative ease allowing retrospective coding of large datasets. Comparison of cases coded at point-of-call with the associated paramedic assessment highlighted the extra clinical detail obtained when paramedic assessment data is used.

#### IMPLICATIONS

Information that is coded using an internationally recognised standard method ensures that this wealth of prehospital data can be aligned to Emergency Departments, primary health care and other health and demographic datasets. Evidence based research using this data will not only inform practice at Ambulance Victoria but can be used to compare practice in other ambulance services, health services and population groups.

### The Requisite Role of Governance Structures in eHealth Strategy Implementation in New Zealand

*Nouran Ragaban, Karen Day, Martin Orr*  
University of Auckland

#### 1C.6

#### OBJECTIVES

The New Zealand National Health Information Technology Plan (NHITP) shifted health information system procurement from a District Health Board (DHB) level to a regional level. This move towards regionalization (with the 20 DHBs split into four regions) impacts how health information

systems are procured as well as establishing new mechanisms of inter-DHB collaboration. This research explores the issues around those mechanisms and impact on eHealth strategy implementation.

#### **METHODS**

Twenty-eight people involved in the development and/or implementation of the NHITP were interviewed over a period of 6 months by the first author. Interviews ran from 30–90 minutes and were conducted using a semi-structured interview schedule. The audio-recorded interviews were transcribed and re-read numerous times to draw out common themes.

#### **LESSONS LEARNED**

A recurring theme that emerged was the need for transparent governance structures. Regionalization meant that governance structures became a growing topic within DHBs and their executive management. Although DHBs have agreed to cooperate with one another there is still a lack of clarity and transparency about roles and responsibilities (and resource commitment) when working regionally.

#### **IMPLICATIONS**

DHBs are still funded locally but are meant to share resources regionally in the space of eHealth. The rules and responsibilities are wanting in this area and require central government clarification (as they are the funding source to the DHBs). The impact of regionalization is being heralded as a way of reducing the waste of limited resources but a need for clearer governance and funding structures is a critical success factor for continued improvement in the sector.

## **1D Mental Health**

10:50-12:20, Monday 2 December 2013, Featherston

Chair: Greg Martin

### **The Australian Capital Territory Consumer and Carer Mental Health Research Unit: Improving Mental Health Services Through Consumer and Carer Involvement in Research and Evaluation**

*Michelle Banfield, Kathy Griffiths, Aine Tierney*

*Centre for Mental Health Research, Australian National University*

#### **1D.1**

#### **OBJECTIVES**

The objective of this project is to establish a Consumer and Carer Research Unit staffed by academic consumer researchers to work in partnership with consumers and carers to improve the lives of mental health consumers and carers in the ACT. The initiative is intended to combine the expertise of qualified researchers with those who are experts by virtue of their lived experience. This will ensure that the research is both of high scientific quality and of optimal and meaningful benefit to consumers and carers.

#### **METHODS**

Consumers and carers will be involved in the formulation of the research questions, the design of the research protocol, the implementation of the research, the evaluation phase and the dissemination of research findings. The first stage of this process is a participation “think tank”. Consumers and carers will be asked to identify priority areas for mental health research in the ACT and workshop ideas for their active participation in carrying out the prioritised projects.

#### **LESSONS LEARNED**

Results will include the areas ACT mental health consumers and carers prioritise for research and discussion of the collaborative development of methods of active involvement in research.

#### **IMPLICATIONS**

The development of a research agenda and methodology in collaboration with consumers and carers will provide a solid basis for future mental health research. The Unit's practices will provide evidence of what works and what doesn't in collaborative research and add to the body of knowledge on which researchers and the community can draw for best practice.

## **Primary Mental Health Care: Evaluation of an Australian Program 10 Years on**

*Bridget Bassilios<sup>1</sup>, Angela Nicholas<sup>1</sup>, Lennart Reifels<sup>1</sup>, Anna Machlin<sup>1</sup>, Maria Ftanou<sup>1</sup>, Kylie King<sup>1</sup>, Justine Fletcher<sup>1</sup>, Grant Blashki<sup>1</sup>, Philip Burgess<sup>2</sup>, Jane Pirkis<sup>1</sup>*

*<sup>1</sup>University of Melbourne; <sup>2</sup>University of Queensland*

#### **1D.2**

#### **OBJECTIVES**

The Access to Allied Psychological Services (ATAPS) program was introduced by the Australian Government in 2001. ATAPS enables predominantly GPs to refer patients with high prevalence mental disorders for low-cost evidence-based mental health care and targets specific hard to reach groups. The achievements of the program 10 years on are examined including participation rates by professionals and patients, patient and service provision characteristics, and patient outcomes.

#### **METHODS**

Data were sourced from a purpose-designed web-based minimum dataset and various qualitative methods implemented over the life of the program evaluation.

#### **LESSONS LEARNED**

Between July 2003 and December 2012, over 350,000 referrals had been made by over 32,000 professionals (mainly GPs) and over 1.4 million sessions had been delivered by over 7,000 professionals (mainly psychologists). Most patients are females with an average age of 37 years, around 3% are Aboriginal, over half are on a low income and one third had not previously accessed mental health care. Most sessions are approximately 1 hour in duration and provide cognitive behavioural interventions with no cost incurred by patients. Pre- and post-treatment patient outcome data, where available, are indicative of significant clinical improvement.

#### **IMPLICATIONS**

ATAPS continues to be an integral part of the primary mental health care system in Australia. Professionals continue to provide services to a substantial number of patients. In more recent times, the program has carved an important niche by successfully addressing the unmet need of specific and/or hard to reach patients and through means that are not available via other primary mental health programs.

### **The ATAPS Suicide Prevention Initiative: Providing Care for Consumers at Moderate Risk of Suicide in the Primary Care Sector**

*Angela Nicholas, Bridget Bassilios, Kylie King, Maria Ftanou, Anna Machlin, Lennart Reifels, Jane Pirkis*

*Centre for Health Policy, Programs and Economics, School of Population and Global Health, University of Melbourne*

#### **1D.3**

#### **OBJECTIVES**

(1) To examine the national uptake of the Australian Government-funded Access to Allied Psychological Services (ATAPS) Suicide Prevention initiative that aims to provide no or low-cost services with a mental health professional in the primary care sector for people at moderate risk of suicide or self-harm. (2) To examine the experiences of Medicare Locals and service provider organisations implementing the Suicide Prevention initiative.

#### **METHODS**

(1) To quantify uptake of the initiative, simple frequencies and percentages were calculated using data from a purpose-designed, web-based minimum dataset that captures session-level and consumer-level information about utilisation of all ATAPS initiatives. (2) Twenty-one semi-structured telephone interviews were conducted with 18 Medicare Locals and three organisations providing Suicide Prevention services to gain an understanding of the process and challenges of implementing the initiative.

#### **LESSONS LEARNED**

The Suicide Prevention initiative is expanding at a rapid rate and its uptake has so far exceeded that of all other ATAPS initiatives. Medicare Locals have developed a number of alternative service delivery models to best meet the needs of the Suicide Prevention initiative in their local area.

#### **IMPLICATIONS**

The popularity of the Suicide Prevention initiative suggests that it

is meeting an otherwise unmet need for providing intensive support from a mental health professional for people at moderate risk of suicide. Models of service delivery used and the referral pathways established between Medicare Locals and emergency departments and state or community mental health services provides a strong example of inter-sector collaboration for providing best practice mental health service delivery for this consumer group.

## Demand for Respite Care Among Informal Carers of People with Mental Disorders in Australia

*Meredith Harris<sup>1,2</sup>, Sandra Diminic<sup>2</sup>, Caroline Marshall<sup>2</sup>*

<sup>1</sup>School of Population Health, University of Queensland; <sup>2</sup>Queensland Centre for Mental Health Research

1D.4

### OBJECTIVES

Surprisingly little is known about the number and characteristics of Australians who provide informal care to persons with a mental disorder. This study estimates demand (defined as use or unmet need) for respite services among informal, primary carers of people with a mental disorder. It also profiles the demographic and caring role characteristics of mental health carers who have a demand for respite services, and their other service needs.

### METHODS

Analysis of data from the household component of the 2009 Survey of Disability, Ageing and Carers ( $n=64,213$  persons).

### LESSONS LEARNED

In Australia in 2009, 3.6% of people aged 15 years or over were providing informal, primary care to a co-resident with a disability, with 1.0% providing care to a person with a psychological disability (+/- other disabilities). More than one-quarter (26.6%) of these mental health carers had a current demand for respite, including 10.9% who had used it in the past 3 months. Mental health carers with a demand for respite care differed from those without on several socio-demographic and caring-role factors. They also had greater overall needs for support (85%) than those without (39%). Although respite care was their most desired service (30%), many also identified a need for financial (19%) and emotional (14%) support.

### IMPLICATIONS

More flexible respite models are required. Although most non-use of respite care was because the carer or care recipient didn't need or want it, many carers reported lack of suitable services as a barrier. Affordability and availability were less frequently identified barriers.

## A Retrospective Quasi-Experimental Study of a Transitional Housing Program for Patients with Severe and Persistent Mental Illness

*Dan Siskind<sup>1,2,3</sup>, Meredith Harris<sup>1</sup>, Steve Kisely<sup>4,3,5</sup>, Victor Siskind<sup>6</sup>, James Brogan<sup>1,3</sup>, Jane Pirkis<sup>7</sup>, David Crompton<sup>2,3</sup>, Harvey Whiteford<sup>1</sup>*

<sup>1</sup>School of Population Health, University of Queensland; <sup>2</sup>School of Medicine, University of Queensland; <sup>3</sup>Metro South Mental Health Service, Woolloongabba; <sup>4</sup>School of Population Health, School of Medicine, and Health LinQ, University of Queensland; <sup>5</sup>Griffith Institute of Health, Griffith University; <sup>6</sup>Queensland University of Technology; <sup>7</sup>Centre for Health Policy, Programs and Economics, School of Population Health, University of Melbourne

1D.5

### INTRODUCTION

Homeless patients with mental illness are often stuck in a revolving door of admission, discharge to inadequate housing, non-engagement with community services, and extended readmission. Transitional housing programs that aim to impart living skills and achieve stable housing can assist in breaking this cycle. We evaluated the Transitional Housing Team (THT), which served inner urban Brisbane, Australia.

### METHODS

113 consecutive patients using the THT were compared to 139 randomly matched controls. Data on hospital bed days, illness acuity, suicidality, substance abuse, living conditions and emergency department presentations were collected from administrative data extracts for one year before an index date and one year after exit. A difference in difference analysis compared change in outcomes between THT participants and controls over the time periods one year before and after entry/exit.

## RESULTS

There was a statistically significant difference in difference favouring THT participants for bed days (mean difference in difference -20.76 days, S.E. 9.59,  $p=0.031$ ) and living conditions (mean difference in difference -0.93, S.E. 0.23,  $p<0.001$ ). THT cost the mental health service less (\$24,180) than the bed days averted (\$29,594).

## DISCUSSION

The findings of reductions in bed days and improved living conditions suggest that transitional housing programs can have a significant positive impact for tenuously housed patients with high inpatient service usage, as well as saving costs for mental health services.

## System-Level Intersectoral Linkages Between the Mental Health and Non-Clinical Support Sectors: A Systematic, Narrative Review

*Sandra Diminic<sup>1</sup>, Harvey Whiteford<sup>1,2</sup>, Gemma McKeon<sup>1</sup>, Meredith Harris<sup>1,2</sup>, Dan Siskind<sup>1,2</sup>*

<sup>1</sup>Queensland Centre for Mental Health Research; <sup>2</sup>School of Population Health, University of Queensland

1D.6

### OBJECTIVES

There is ongoing concern about fragmentation of mental health services for people with severe mental illness. This study reviewed the evidence regarding outcomes attributed to system-level intersectoral linkages involving mental health and non-clinical support services, and identified barriers and facilitators of the linkage process.

### METHODS

A systematic, narrative, review of 39 studies describing attempts to coordinate activities of multiple service agencies at the policy, program or organisational level — 25 for adult populations and 14 for vulnerable youth populations.

### LESSONS LEARNED

Identified mechanisms promoting positive outcomes included: interagency coordinating committees or intersectoral/interface workers engaged in joint service planning; formalised interagency collaborative agreements or memoranda of understanding; a single multi-agency care plan for each client; cross-training of staff to ensure staff culture, attitudes, knowledge and skills are complementary; service co-location; and blended funding initiatives to ensure alignment with program integration. Identified barriers included: provision of adequate funding and technology; ensuring realistic workloads; overcoming 'turf issues' relating to differences of opinion between service providers and disagreements regarding areas of responsibility; ensuring integration strategies are implemented as planned; and maintaining stakeholder enthusiasm.

### IMPLICATIONS

Systems-level intersectoral linkages can be achieved in a variety of ways and are associated with many positive outcomes for services and clients in both clinical and non-clinical contexts. Although some would be more difficult to implement than others (e.g., those requiring major technology upgrades or co-location in geographically remote areas), alternative options may achieve equivalent benefits. Publication bias in favour of positive outcomes could not be discounted.

## 1E Workforce Issues

10:50-12:20, Monday 2 December 2013, Rosanna

Chair: Julie McDonald

## Job Satisfaction Among Australian GPs and Specialists — A Latent Class Approach

*Wei C. Wang, Catherine M. Joyce*

*Department of Epidemiology and Preventive Medicine, Faculty of Medicine, Nursing and Health Sciences, Monash University*

1E.1

### OBJECTIVES

To examine the patterns of job satisfaction among Australian General Practitioners (GPs)/specialists and to identify how personal characteristics, social and health status influenced their reported job satisfaction.

## METHODS

Data from 6078 Australian GPs/specialists who participated in wave 4 of the Medicine in Australia — Balancing Employment and Life (MABEL) survey were analysed. The key outcome variable was ranked level of job satisfaction, and other variables measures were demographic, professional, and social characteristics and health status. Latent class analysis was applied.

## LESSONS LEARNED

Three classes of job satisfaction were identified; high, medium, and low. Class membership was associated differentially with several covariates. For example, the chance of being in the high versus low class was positively associated with female gender, currently living with a partner/spouse, good health, holding a degree from a medical school in Australia, having opportunities for continuing medical education and professional development and for social interaction but was negatively related to the number of dependent children. Moreover, membership of medium versus low satisfaction class was positively linked to female gender, currently living with a partner/spouse, good health, holding a degree from a medical school in Australia, and having opportunities for continuing medical education and professional development.

## IMPLICATIONS

Identifying factors associated with low job satisfaction enables employers to develop strategies to improve this, focusing on those aspects which are amenable to change, (e.g., improving health, providing opportunities for education and professional development and social interaction). Ultimately this can impact positively on workforce retention.

## Bowing Out, Winding Down: Older Doctors' Workforce Participations Patterns

*Catherine M. Joyce, Wei C. Wang*

*Health Services Research Unit, School of Public Health & Preventive Medicine, Monash University*

### 1E.2

## OBJECTIVES

There are few observational studies of Australian doctors' retirement patterns, with most based on intentions only. Our objective was to investigate factors associated with changes in workforce participation over time for Australian doctors aged 65+ years.

## METHODS

Data from waves 1 to 4 of the MABEL (Medicine in Australia — Balancing Employment and Life) study were analysed. The key outcome measure was transitions in practice status, between four categories (clinical practice; non-clinical medical practice; non-medical work; retired). Paired observations of practice status for waves 1–2, 2–3 and/or 3–4 were analysed. Regression analysis was used to investigate variables associated with changes in practice status, including: intentions to leave medical work or leave patient care; personal characteristics such as gender and age; health status; financial circumstances; and job satisfaction.

## LESSONS LEARNED

In 2008, 797 medical practitioners who were aged 65+ years and working as clinicians enrolled in the MABEL study. From this group, 1,810 paired observations were available for waves 1–4. Of these, 80.2% were clinical practice at both time points. 11.8% were transitions to retirement, 4.4% were movements into non-clinical roles, and 2.5% were movements into non-medical jobs. The factors associated with these transitions will be reported.

## IMPLICATIONS

Many doctors remain active in clinical practice beyond 65 years. Movement to non-clinical work or non-medical work is relatively uncommon during the transition to retirement. Policy makers can use information about the factors associated with workforce participation by older doctors (including the predictive value of stated intentions) to help plan future workforce needs.

## Public or Private? The Preferences of Specialists for Public or Private Work

*Anthony Scott<sup>1</sup>, Jon Holte Helgheim<sup>2</sup>, Terrence Cheng<sup>1</sup>, Julia Witt<sup>3</sup>*

*<sup>1</sup>University of Melbourne; <sup>2</sup>University of Oslo; <sup>3</sup>University of Manitoba*

### 1E.3

## OBJECTIVES

To examine the preferences of medical specialists for public or

private work, and examine whether public service motivation is valued separately from differences in earnings, on-call work, and teaching and research.

## METHODS

A discrete choice experiment (DCE) administered in Wave 1 (2008) of the Medicine in Australia: Balancing Employment and Life (MABEL) panel survey of doctors. 3,616 medical specialists completed the DCE. Included attributes were earnings, hours worked, on-call, percentage of time spent in the private sector, teaching/research, time spent on administration, and location. Attribute levels were organised into job packages using an efficient experimental design. Specialists were asked to choose between Job A, Job B, or to stay in their current job. Data were analysed using mixed logit models.

## LESSONS LEARNED

Initial results suggest that once other attributes were accounted for, the value placed on private work was mixed, in some case not statistically significant, and did not vary across respondents. Qualified specialists preferred lower levels of private work. On-call and earnings had the largest impact on utility and job choices. Variations in preferences across different specialties, age, gender, and between qualified specialists and younger specialists in training will also be examined. The probabilities of choosing between largely private, largely public, and mixed sector jobs will also be estimated.

## IMPLICATIONS

Little is known about the balance of public and private work for medical specialists. Previous studies have argued that public service motivation is a key reason why some doctors choose to work in the public sector. This study has found mixed results of the role of public service motivation. Policies to encourage specialists to spend more time in the public sector should focus on reducing on-call and increasing earnings.

## Regional Workforce Planning in North Queensland: Starting with the End in Mind

*Sarah Larkins<sup>1</sup>, Annette Panzera<sup>1</sup>, Neil Beaton<sup>2</sup>, Jane Hollins<sup>1</sup>, Jane Mills<sup>1</sup>, Richard Murray<sup>1</sup>, Ruth Stewart<sup>1</sup>*

*<sup>1</sup>James Cook University; <sup>2</sup>Queensland Health*

### 1E.4

## OBJECTIVES

Health workforce planning is often reactive and assumes continuation of current patterns of health care utilisation. This demonstration project develops a model of needs-based health workforce planning in a geographically-bounded area in north Queensland.

## METHODS

An action research methodology informed by WHO systems thinking involves key stakeholders in four cyclical stages of health workforce planning: needs assessment; health service model redesign; skills-set assessment and workforce redesign; and developing a workforce and training plan.

## LESSONS LEARNED

- Regional needs-based health workforce planning using our approach is feasible, flexible and acceptable
- All stakeholders must collaborate in the planning process of innovative system redesign unbound by current funding, governance or disciplinary silos
- High level management and governance support is key
- Increasing regionalisation/decentralisation of health funding, planning and accountability increases the feasibility and relevance of this kind of planning
- Workforce planners, educators and training providers need to think about competencies and skills-sets not qualifications.

## IMPLICATIONS

This research is leading to real changes in delivering health services in the region. For example:

- Establishing a locally situated public-private partnership in the provision of home-style renal dialysis
- Developing a bulk-billing, multidisciplinary teaching clinic focussing on chronic disease
- Expanding local surgical roster, strengthening the surgical and rural nursing workforce
- Targeted skills audit and training support towards accreditation for Aboriginal health workers in north Queensland

- Next steps include replication in a different region and developing a generalisable toolkit for regional needs-based health workforce planning.

## ACKNOWLEDGEMENTS

The authors would like to acknowledge funding from Health Workforce Australia.

## Who Provides GP After-Hours Care?

*Mai Pham, Ian McRae*

*The Australian National University*

1E.5

### OBJECTIVES

Understanding the supply side of after-hour GP care is crucial in meeting the increasing demand for this care in Australia. The study answers two questions: which GPs are more likely to provide after-hours GP care, and of those who do, which are more likely to take a heavier load.

### METHODS

Data from the first wave of the Medicine in Australia: Balancing Employment and Life (MABEL) survey is used, with logistic regression applied to address the decision to undertake after-hours work and linear regression to address the question of the quantum of work.

### LESSONS LEARNED

Male, younger, and regional GPs are more likely to work outside of normal hours. GPs who are employees are less likely to take the work compared with GPs who are principals or partners of a practice, and GPs in solo practice are less likely than other GPs to work after-hours, although both these groups if they do work outside normal hours, are likely take a heavier workload. Non-medical family income is important in the decision to undertake after-hours work, but not in the quantum of that work.

### IMPLICATIONS

While the core results on demographic variables are as expected, the roles of different variables on the two decisions in relation to after-hours care, and the role of wages and non-medical income add to the understanding of who to target in seeking to improve availability of after-hours care.

## The Impact of Workplace Aggression in Australian Clinical Medical Practice

*Danny Hills, Catherine M. Joyce*

*Health Services Research Unit, School of Public Health and Preventive Medicine, Monash University*

1E.6

### OBJECTIVES

This study of Australian General Practitioners, Specialists, Hospital Non-Specialists and Specialists in Training explored the impact of exposure to workplace aggression from internal and external sources on clinician job satisfaction, satisfaction with life, self-rated health and workforce participation intentions.

### METHODS

Cross-sectional, self-report data were obtained from over 9400 respondents in the third wave of the Medicine in Australia: Balancing Employment and Life (MABEL) survey, conducted from March 2010 to June 2011. Logistic regression modelling was employed to determine associations between aggression exposure and outcomes, adjusting for personal profile, work and patient factors.

### LESSONS LEARNED

Overall, workplace aggression prevalence rates were 67.6% for aggression from external sources (patients, patients' relative or carers and others external to the workplace) and 27.2% for aggression from internal sources (co-workers). Workplace aggression exposure was negatively associated with greater intrinsic job satisfaction (OR=0.59–0.75), satisfaction with life (OR=0.67–0.87) and self-rated health (OR=0.83–0.86) and positively associated with being more likely to leave patient care in the next 5 years (OR=1.16–1.20). Only external aggression was associated with being more likely to reduce clinical workload (OR=1.13) and only internal aggression was associated with being more likely to leave medicine altogether (OR=1.20) within 5 years.

### IMPLICATIONS

Workplace aggression is a major professional and health workforce policy concern. Beyond the consequences for individual clinicians are

potential impacts on care access, safety and quality. More concerted efforts are required to prevent and minimise workplace aggression in clinical medical practice and its consequences. Ongoing research at both the operational and population levels is essential.

## 1F Indigenous Control

10:50-12:20, Monday 2 December 2013, Wellington

Chair: Lynne Russell

## Manitoba First Nations' Journey Towards Governance of Information, Research and Data

*Leona Star, Wanda Phillips-Beck*

*Assembly of Manitoba Chiefs, Winnipeg, Manitoba*

1F.1

### OBJECTIVES

Manitoba is known as a leader in First Nation health services research. This presentation will describe the infrastructure developed by the Assembly of Manitoba Chiefs (AMC) to achieve this, explore lessons learned and discuss implications for Indigenous health research.

### METHODS

The AMC Health Information Research Governance Committee was established in 1990 to ensure that First Nation health research was informed by First Nations ethical principles (Anishinaabe, Cree, Dakota, Dene, Oji-Cree). A Research Data Centre was established in 2010, and houses data from two FN-controlled surveys. AMC is in the process of creating a MFN Epidemiology Centre, to link to community-based health utilization information produced by the 69 member communities.

### LESSONS LEARNED

AMC's engagement in health research has shifted how health research is done in FN communities. AMC partners with researchers, informs the development of appropriate research questions, guides researchers, participates in the research process, informs analysis, assists in publications, and ensures that results are shared with communities and with AMC. While not all research projects achieve this ideal, considerable progress has been made.

### IMPLICATIONS

AMC's data holding is filling an important health utilization information gap that can inform community-based service delivery. This infrastructure assists AMC and MFN communities in implementing surveillance systems and identifying priorities; producing FN community health profiles; and informing health research and program evaluation, in partnership with the province and Health Authorities, universities and federal government. This also resulted in improved MFN health data quality. This may serve as a model for others.

## Exploring New Pathways: What Role Could a Tribal Public Health Institute (TPHI) Have in Improving American Indian/Alaska Native Health and Supporting Self-Determination?

*Aleena M. Hernandez*

*Red Star Innovations*

1F.2

### OBJECTIVES

Identify and describe public health activities within the Tribal public health system; Identify and describe activities and national trends in public health; and Describe the potential role of a TPHI.

### METHODS

Two assessments were conducted using a framework based on the 10 Essential Public Health Services. Survey instruments were developed to conduct a systematic Internet review of Tribal organizations to identify and describe the type and scope of public health services provided. Seven roundtables were also held with Tribal Leaders to obtain input on the potential role of a TPHI.

### LESSONS LEARNED

Tribal public health activities differ greatly from the national systems, which may be due in large part to funding. While state level public health efforts use a systems-focused approach to increasing collaboration and capacity building, Tribal funding is often focused on disease-specific prevention efforts. A TPHI could benefit by:

- Providing Tribally specific technical expertise into new national

initiatives in public health;

- Building the capacity of the Tribal public health system to function more effectively and efficiently;
- Providing opportunities for executive leadership, nation building, and workforce development.

#### IMPLICATIONS

A stronger Tribal infrastructure may lead to health improvements and greater capacity to respond to important public health concerns. A TPHI could benefit the Tribal public health system by serving in a coordinating role and support Tribal public health infrastructure development, performance improvement, and national-level system-wide coordination among Tribes, Tribal Organizations and other stakeholders.

### Tracking Māori Health Treatment Seeking Behaviors by Doing it the Māori Way

*Glenis Mark*

*Whakauae Research for Māori Health and Development*

1F3

#### OBJECTIVES

Māori are often characterised as late presenters; who attend GP services only as a “last resort” and who, when provided with a treatment regime, are at best, partially compliant and at worst, non-compliant. These views contribute to a lack of understanding of how Māori interact with the health system, and how to improve health service provision to better meet the needs of Māori. Research conducted with Māori patients of western health treatment aims to elucidate cultural perspectives of health and illness, with a view to demonstrating how this cultural perspective contributes to health seeking behaviours.

#### METHODS

To understand their perspectives on health and illness, thirty Māori patients participated in two semi-structured interviews, with a photo-storytelling component. The research methodology, termed ‘Māori-voice’ meaning, the voice of Māori through photos, was created as a Māori cultural adaptation of photovoice. Data were analysed using inductive thematic analysis. Themes were elicited and collated from each interview to provide a group of overall themes.

#### LESSONS LEARNED

Preliminary results found that: the importance of whānau providing the primary encouragement for Māori to seek health treatment; working with the whānau rather than the individual patient; encompassing the spiritual aspect into health care treatment; utilising a holistic view of health; and encouraging friendly rapport between health practitioners and Māori, may assist to strengthen and enhance publicly-funded mainstream health services for Māori.

#### IMPLICATIONS

The implications of these results for health services for Māori patient care, compliance and early presentation, are discussed in terms of greater Māori patient satisfaction and participation in health treatment services.

### Trust and Accountability in the Funding Relationship Between Aboriginal Community Controlled Health Organisations and Government Departments

*Kim O'Donnell*

*Lowitja Institute & Flinders University*

1F4

#### OBJECTIVES

This study aims to add to knowledge about how problems in the relationships between government funders and Aboriginal community controlled health organisations (ACCHOs) might be better managed or resolved, from the perspectives of the participants in the funding relationship. It investigates whether trust is perceived by participants as enabling more effective working relationships; the barriers they face in negotiating and maintaining relationships with each other; and provides a framework to guide government departments and ACCHOs to strengthen the relationship to be better aligned with ACCHOs core business, and reduce the burden on (mostly administrative) resources.

#### METHODS

A case study of an ACCHO in three stages: literature and document reviews that analysed current funding relationships based on their data and publicly available documents; interviews with the ACCHO staff

and government funding staff using thematic analysis of interviews and initial themes and findings presented and discussed with ACCHO management and government funders for clarification and confirmation.

#### LESSONS LEARNED

This work explores ways of talking about (mis)trust between ACCHOs and Australian government funding staff in regard to the different tensions and barriers they face in their funding relationship with each other. Relationships of trust based on agreed governance and community participation goals are imperative in negotiating accountability between ACCHOs and government funders.

#### IMPLICATIONS

By understanding the causes of tensions and barriers, ACCHOs and government funding staff may find realistic ways to engage around agreed governance and community participation goals for effective healthcare delivery with and for Aboriginal and Torres Strait Islander people; hence, better health outcomes.

### Contracting to Meet Cultural Imperatives: The Case of Rongoā (Traditional Healing) Services in New Zealand

*Amohia Boulton<sup>1</sup>, Annabel Ahuriri-Driscoll<sup>2</sup>*

*<sup>1</sup>Whakauae Research for Māori Health and Development; <sup>2</sup>University of Canterbury*

1F5

#### OBJECTIVES

Publicly-funded rongoā services emerged from approaches to improve health services for Māori. Rongoā services support Māori wellbeing at two levels: providing holistic, culturally consistent assessment and treatment of individual conditions, whilst maintaining and revitalising mātauranga, tikanga and te reo Māori. More than simply a means to improve health, Rongoā has intrinsic value as a cultural healing tradition. This paper highlights the tensions played out in the health sector through the contracting of traditional healing services which serve these dual goals.

#### METHODS

Phase one of a three-year study employed key informant interviews with stakeholders involved in the development and contracting of rongoā services in New Zealand to determine: how rongoā is currently delivered; the challenges to this delivery; and what is needed to better support rongoā service provision in the future.

#### LESSONS LEARNED

Rongoā Māori represents an important, relevant and meaningful health service option for tangata whenua. For some, the provision of such services represents an explicit form of “rangatiratanga”; the view being that who attend rongoā clinics have greater control and input into the healing that occurs. Rongoā Māori is acknowledged as being unique to NZ, and as a consequence, worth supporting at the central government level.

#### IMPLICATIONS

The dual goals create tensions in the health contracting space, which in turn impacts the working conditions and remuneration of healers themselves. Central government must develop strategies to mitigate these tensions, whilst at the same time acknowledging the unique contribution rongoā Māori makes to the wellbeing of Māori people.

### Comparing Models of Mutual Accountability: Lessons from Canada, Australia and New Zealand

*Josée G. Lavoie<sup>1</sup>, Judith Dwyer<sup>2</sup>, Amohia Boulton<sup>3</sup>, Lloy Wylie<sup>4</sup>, John O'Neil<sup>5</sup>*

*<sup>1</sup>University of Northern British Columbia; <sup>2</sup>Flinders University; <sup>3</sup>Whakauae Research for Māori Health and Development; <sup>4</sup>British Columbia First Nation Health Authority; <sup>5</sup>Simon Fraser University*

1F6

#### OBJECTIVES

Since 1985, federal responsibility for health services has been gradually transferred to Canadian First Nations' control. The accountability frameworks have been one sided, onerous, and yielded little usable information. The current high level transfer to the British Columbia First Nations Health Authority (FNHA), a province-wide Indigenous organization, includes mention of mutual accountability, but is focused entirely on the FNHA's obligations. Australia and New Zealand have also explored concepts of mutual accountability. The purpose of this

presentation is to compare models of mutual accountability across the three countries, to identify strengths, gaps and opportunities.

#### **METHODS**

We drew on policy documents and the literature, to explore how mutual accountability is framed, identify key components and gaps.

#### **LESSONS LEARNED**

In New Zealand, an emerging model [whānau ora] of cross-sectorial contracting retains an accountability framework focused on providers. However, contracts are only one component of a broader framework for mutual accountability across the health system. In Australia, mutual accountability discourses are currently being redefined in the search for new ways of shaping the relationship between Indigenous health care providers and their government funders.

#### **IMPLICATIONS**

Developing a comprehensive framework for mutual accountability requires articulating the obligations of key stakeholders (providers, community governance organisations, and governments), and designing ways of making their enactment visible, 'reportable' (but not always measurable) and consequential.

## **2A Methods**

13:30-15:00, Monday 2 December 2013, Lambton 1

Chair: Jaikishan Desai

### **Fairer Comparisons of Hospital Performance — Choosing a Method for Case-Mix Adjustment of Standardised 30-Day AMI Mortality Ratios**

*Sadaf Marashi-Pour, Douglas Lincoln, Kerrin Bleicher, Kim Sutherland*

**2A.1**

#### **OBJECTIVES**

Case-mix adjustment of standardised 30-day mortality ratios for patients admitted for acute myocardial infarction (AMI) allows fairer comparisons of hospital performance. The aim of our investigation was to identify a case-mix adjustment method that was appropriate and reliable for the NSW population and stable across years and different hospital case-mixes.

#### **METHODS**

The analysis compared three case-mix adjustment methods — the Elixhauser comorbidity set, the Charlson comorbidity index, and a comorbidity covariate set constructed specifically for Australian AMI patients by the Australian Commission for Safety and Quality in Healthcare (ACSQHC). For each comorbidity set, two-level random intercept logistic regression was used to build the prediction model, adjusting for patient level risk factors and accounting for the clustering of patients within hospitals. The c-statistic, Akaike's Information Criterion (AIC) and Bayesian Information Criterion (BIC) were used to assess and compare the performance of the prediction models. Model was validated and its stability and consistency over time was assessed by computing the c-statistic for data from previous years and assessing the change to parameter estimates.

#### **LESSONS LEARNED**

All three case-mix adjustment methods showed good predictive accuracy. The set of covariates developed by the ACSQHC for case-mix adjustment of in-hospital mortality ratios gave the highest c-statistic and lowest AIC and BIC. Model validation analysis using data from previous years indicated the model was stable and maintains a high predictive accuracy.

#### **IMPLICATIONS**

A case-mix adjustment method for calculating standardised AMI mortality ratios developed with Australian admitted patient data may provide hospitals with the most accurate and fairest comparative information.

### **Variations in the Level of Recording of Common Health Conditions and Risk Factors in Hospital Morbidity Data**

*Sanja Lujic, Louisa Jorm, Deborah Randall*

*University of Western Sydney*

**2A.2**

#### **OBJECTIVES**

To investigate levels of agreement and quantify variations in the recording of common health conditions and risk factors.

#### **METHODS**

Self-reported morbidity data from 267,091 participants in the 45 and Up Study were linked with hospital morbidity data from the NSW Admitted Patient Data Collection for the 1-year period prior to completion of the Study questionnaire. Five morbidity and 10 multimorbidity conditions were examined. The overall agreement was assessed using Cohen's Kappa ( $\kappa$ ). Multilevel logistic regression was used to quantify the variation at individual and hospital level.

#### **LESSONS LEARNED**

A total of 32,832 study participants were admitted to 314 hospitals up to a year prior to joining the Study. Agreement was found to be good for diabetes ( $\kappa=0.79$ ), moderate for smoking ( $\kappa=0.59$ ), fair for heart disease and hypertension ( $\kappa=0.24$  and  $0.40$ , respectively), and poor for obesity ( $\kappa=0.09$ ). Sensitivities ranged from 74% for diabetes to 7% for obesity, indicating that a large number of individuals with self-reported morbidities did not have a record of such morbidity on their hospitalisation record. The percentage of unexplained variation due to the hospital of admission varied between 7% (diabetes) and 21% (obesity). Public hospitals and hospitals with higher average number of additional diagnoses coded had better odds of agreement.

#### **IMPLICATIONS**

The completeness of capture of common comorbid conditions in routine hospital data is highly variable, and for some conditions, very low. These findings have important implications for computing measures of hospital performance, and for adjustment for confounding in research studies using these data.

### **The Utility of Different Statistical Approaches to Examining Multiple Presentations to the Emergency Department**

*Katherine Nelson<sup>1</sup>, Cheryle Moss<sup>2</sup>, Amohia Boulton<sup>3</sup>*

*<sup>1</sup>Victoria University of Wellington; <sup>2</sup>Monash University; <sup>3</sup>Whakauae Research Services*

**2A.3**

#### **OBJECTIVES**

To demonstrate the strengths, weaknesses and clinical utility of three different statistical approaches to examining presentations to the emergency department (ED).

#### **METHODS**

All presentations from three New Zealand EDs (N=115,544) were obtained. People recalled to ED were removed from the sample. Three statistical techniques — Descriptive statistics, Poisson Regression, mean difference — were utilised and the usefulness of the findings generated compared. The analyses were undertaken within each ED dataset and as a total dataset.

#### **LESSONS LEARNED**

Descriptive statistics generate frequencies of presentations by individuals. From these frequencies, researchers and clinicians can decide how many presentations a person needs to make to be considered a multiple presenter. In contrast, Poisson Regression results in a statistically calculated number of presentations a person needs to make to be defined as a multiple presenter. Using the mean difference between 4 or more presentations enables an examination of the proximity of presentation. By limiting the focus to those whose presentation patterns are not very close together (within 3 days) or those who are very spread out (greater than 60 days) enables the identification of those who are more likely to be representing related to ongoing need as opposed to systems events or unrelated health reasons.

#### **IMPLICATIONS**

The use of several statistical approaches provides new ways for clinicians to understand who, how often and when people present. Such information can assist clinicians refine and develop services to better respond to the various needs of those who present to the ED on multiple occasions.

### **A Quality Improvement Tool Designed for General Practice and Primary Health Care**

*Lisa Crossland, Tina Janamian, Claire L. Jackson*

*University of Queensland*

**2A.4**



## OBJECTIVES

The 2 key objectives are (i) the development of a validated tool for use in improving quality, sustainability and integration of primary health care (Phase 1) and (ii) the trial and validation of the tool in Australian primary health care settings (Phase 2).

## METHODS

Phase 1: A comprehensive literature review was undertaken to identify existing tools used in primary health care settings. Following this, an existing quality improvement tool was trialled in a high functioning general practice to identify gaps and issues with its use.

Results were used to develop the Primary Care Practice Improvement Tool (PC-PIT). This online tool takes a whole of practice approach and covers 13 key elements. It recognises the role of Practice Managers as potential leaders in improving practice performance.

Phase 2: A pilot of the new tool was undertaken with 6 general practices to assess content and process validity. Final adjustments were made and an expression of interest in a national trial was circulated. Over 80 practices nationwide registered their interest in trialling the tool which is presently underway.

## LESSONS LEARNED

There are no standardised approaches to improving practice performance. The majority of existing tools are single-strategy or have been designed for tertiary care settings. The PC-PIT is designed by primary health care for primary health care.

## IMPLICATIONS

The PC-PIT will be a potentially fast, simple and effective approach to facilitate quality improvement. It was presented at a quality improvement conference in Sweden where international interest was shown in its development and implementation.

## Development of a National Index of Access for Rural Primary Health Care

*Matthew R. McGrail<sup>1,2</sup>, John S. Humphreys<sup>1,2</sup>*

<sup>1</sup>Monash University School of Rural Health; <sup>2</sup>Centre of Research Excellence in Rural and Remote Primary Health Care

### 2A.5

## OBJECTIVES

Ensuring equity of access to resources requires a fit-for-purpose geographical classification. In Australia, health resource allocation has relied upon classifications only approximating access to healthcare (such as remoteness or socio-economic classifications ASGC-RA or SEIFA), or simplistic access measures (such as provider-to-population ratios or distance to nearest services). This paper reports on progress by the Centre of Research Excellence in Rural and Remote Primary Health Care in developing a more appropriate national Index of Access for rural primary health care in Australia.

## METHODS

The Index of Access is founded on the two-step floating catchment area (2SFCA) method, and designed to take account of geographical location, ability to transcend distance, and the need for, and availability of, primary health care services. General practice workforce data were obtained from the Australian Medicare Benefits Schedule database, and compared with data from the Australian Medical Publishing Company.

## LESSONS LEARNED

This paper presents the initial results. In particular, because of the critical importance of parameters underpinning such an index, considerable attention must be given to key assumptions relating to service and population catchments, population travel behaviour and health needs across diverse geographical regions. Our current research is seeking to validate previously-used assumptions associated with moving from a single state rural access measure in Victoria to a national-level measure of access.

## IMPLICATIONS

A national Index of Access for primary health care policy will assist policy-makers in their quest to allocate resources underpinning the provision of rural primary health care service more equitably.

## The Clinical Governance Development Index: New Zealand Results from 2010 and 2012 Studies

*Robin Gauld, Simon Horsburgh*

*Centre for Health Systems, Department of Preventive and Social Medicine, Dunedin School of Medicine, University of Otago*

### 2A.6

## OBJECTIVES

Clinical Governance (CG) has become a core area of health policy in many countries. Yet the literature on how it might be measured remains limited. We therefore created the Clinical Governance Development Index (CGDI) to provide a quantitative measure of progress.

## METHODS

We developed an 11-item fixed response survey that was sent to all public hospital specialists in 2012 (n=3400) employed in New Zealand's 20 District Health Boards (DHBs) which are required to implement clinical governance. The survey probed perceptions of DHB support for clinical governance as well as respondent commitment to this. The survey was repeated in 2012 (with minor adjustments). Data from the surveys were used to create the 7-item CGDI, designed to give each DHB a score out of 100. Analyses were performed using R statistical system version 2.12.

## LESSONS LEARNED

Responses of 52 and 32% were received to the 2010 and 2012 surveys respectively. An 8 point increase in mean CGDI score was found between the two surveys, showing considerable progress across the DHBs. Several DHBs demonstrated substantial improvement with, in one case, a 20 point increase in index score. Differences between different DHB scores were significant in both surveys. In 2010, the range was 38–55%; in 2012, this broadened to 36–65%.

## IMPLICATIONS

The CGDI provides a simple yet effective method for measuring clinical governance development that can be used to measure progress over time. It could be used in other countries.

## 2B Primary Health Care

13:30-15:00, Monday 2 December 2013, Lambton 2

Chair: Julie McDonald

## Awareness and Uptake Among Australians of Innovations in the Delivery of Primary Care

*M. Haas, Stephen Goodall, R. De Abreu Lourenco, REFinE Team*

*Centre for Health Economics Research & Evaluation, University of Technology Sydney*

### 2B.1

## OBJECTIVES

To assess awareness and uptake of recent innovations designed to improve the delivery of primary care in Australia.

## METHODS

A survey was administered via an online panel to Australian individuals aged 16 years or older. The survey included questions focusing on recently introduced Commonwealth Government initiatives on the use of electronic medical records (EHealth), phone based medical information services (Health Direct Australia), and changes to fee claims processing (Medicare rebates).

## LESSONS LEARNED

2,564 respondents completed the survey (July 2013). Awareness of Health Direct was low; 31% of respondents reported they had heard of the service. Of those, only 20% had used Health Direct in the previous 12 months. A higher proportion of respondents reported awareness of EHealth (49%). However, this did not translate into action; only 18% of those who reported knowing about EHealth had registered for its use. In comparison, of the 29% of respondents who paid for GP visits 64% utilised a direct service available through the practice when claiming their Medicare rebate. The impact on the awareness and uptake of innovation services of patient location, demographic factors, and GP utilisation (including GP "loyalty", and experiences during consultations) is also investigated.

## IMPLICATIONS

While respondents were willing to adopt innovations that simplify fee rebates, current evidence suggests poor awareness and uptake of new services designed to improve access to primary care. Understanding

the patterns underlying lack of knowledge and/or utilisation will assist in better targeting efforts to improve familiarity with and uptake of those services.

## Equitable Use of GP Services: Are There Socio-Economic Inequalities in Use and Does Where You Live Matter?

*Danielle Butler<sup>1,2</sup>, Rosemary Korda<sup>1</sup>, Ian McRae<sup>1</sup>*

<sup>1</sup>Australian National University; <sup>2</sup>James Cook University

### 2B.2

#### OBJECTIVES

A number of health reforms have been implemented to improve primary health care service planning and ensure equitable access to care. The objective of this study is to quantify how much variation in use of GP services is due to neighbourhood and individual characteristics, and to determine if there are socioeconomic inequalities in individual GP use adjusted for need.

#### METHODS

Data was sourced from 265,416 respondents from the 45 and Up cohort study, with socio-demographic and health information linked to Medicare data. The outcome of interest was total GP visits. A two-level (individual nested within geographic area of residence) random intercept model was fitted and a variance partitioning co-efficient determined.

#### LESSONS LEARNED

There is significant variation in use of GP services across areas (4.7% of total variation in the unadjusted model, 3.9% in the model adjusted for individual education, age, sex, self-rated health, morbidity). Area disadvantage in the adjusted model had no effect on use. There is an educational gradient in use (increasing use with lower educational level), that was attenuated but of the same direction when adjusted for need.

#### IMPLICATIONS

The current analysis suggests those who are more disadvantaged have greater use of GP services, having accounted for healthcare need. The question remains as to why those who are disadvantaged use more rather than an equal quantity of services. Given the variation in use due to where people live, area-level features of primary health care services that are amenable to policy change may account for this finding.

## Who Does Not Use GP Services Prior to an “Avoidable” Hospital Admission?

*Victoria Pye<sup>1,2</sup>, Michael Falster<sup>1</sup>, Louisa Jorm<sup>1</sup>*

<sup>1</sup>University of Western Sydney; <sup>2</sup>NSW Ministry of Health

### 2B.3

#### OBJECTIVES

Potentially Preventable Hospitalisations (PPH) are assumed to be avoidable given timely access to effective primary care. However, little is actually known about the relationship between PPH and use of primary care. Our objective was to characterise those patients who do not see a GP in the lead up to a PPH admission, and who therefore may experience particular difficulties in accessing GP care.

#### METHODS

We compared the characteristics of patients who did and did not use GP services in the 4 weeks prior to PPH admission, using logistic regression modelling and survey data for 267,091 participants in the 45 and Up Study, linked with hospital morbidity and Medicare data.

#### LESSONS LEARNED

Of 18,735 participants aged 45 years and over who had an admission for an acute or chronic PPH condition during follow-up, 34% had not visited a GP within the 4 weeks prior to admission. After adjusting for all other variables, participants who had not seen a GP were more likely to have an acute PPH condition, be younger, be more educated, have higher income, better self-rated health, lower levels of functional limitation and fewer comorbidities, and to live outside major cities, particularly in outer regional areas.

#### IMPLICATIONS

Our findings describe a group who are not accessing GP care prior to a PPH admission. Their characteristics suggest that their lack of access relates both to supply-side factors (limited availability of GP services in regional and rural areas) and demand-side factors (younger patients with acute conditions and better general health).

## Does Subsidisation of Primary Care Co-Payments After-Hours Address Unmet Need and Reduce the Burden on Hospital Emergency Departments? Lessons Learned from the Evaluation of Auckland’s ‘After-Hours Initiative’

*Tim Tenbensele<sup>1</sup>, Richard Edlin<sup>1</sup>, Adrian Field<sup>2</sup>, Lisa Walton<sup>1</sup>, Pat M. Neuwelt<sup>1</sup>, Rob McNeill<sup>1</sup>*

<sup>1</sup>University of Auckland; <sup>2</sup>Synergia Consulting, Auckland

### 2B.4

#### OBJECTIVES

The lack of affordable access to after-hours primary care for many patients has emerged as a pressing health policy problem over the past ten years in New Zealand. In Auckland, an initiative to reduce barriers to access was implemented in late 2011. A key part of this initiative was the subsidisation by Auckland DHBs and PHOs of patient co-payments to some Accident and Medical (A & M) clinics for particular population categories.

#### METHODS

The evaluation team analysed 40 months of utilisation data (pre and post-initiative) for all hospital EDs and participating A & Ms in the Auckland region; surveyed over 500 patients, and interviewed 17 key informants.

#### LESSONS LEARNED

There were significant increases in utilisation of A & Ms for patients aged under 6, in areas where co-payments were reduced to \$0. However, no significant increases in A & M utilisation were apparent for other eligibility categories, despite some large decreases in co-payments. Higher than expected A & M utilisation for under 6s was not accompanied by lower than expected ED utilisation. Proximity and familiarity were significant drivers of patient decisions. A general lack of patient awareness of lower co-payments may have contributed to the lack of effectiveness for groups other than under 6s.

#### IMPLICATIONS

The proposition that reducing access barriers to after-hours care in the community reduces pressure on hospital EDs needs to be revisited. Lower co-payments may assist in meeting unmet primary care demand, but only if the cost to patients is very low.

## Subsidisation of After-Hours Care for Children Under 6: Effects on Primary Care Services

*Kate Dowson*

University of Auckland

### 2B.5

#### OBJECTIVES

In 2011 the Auckland After-Hours Initiative was implemented to improve access to after-hours care, this included subsidising fees for children under 6 at participating Accident & Medical (A&M) clinics. The Minister of Health has also issued a directive for free after-hours care for under 6s in A & M clinics nationwide. Some GPs fear unintended consequences of this policy will result in reduced general practice funding (through funding ‘clawback’) and loss of continuity of care. This study aims to investigate the consequences of this subsidy on ‘within-hours’ general practice services in Auckland.

#### METHODS

PHO data was used to compare utilisation of subsidised A&Ms before and after the initiative (2010 versus 2012). This was considered alongside funding data showing clawback from selected practices. Interviews with a small sample of Auckland GPs were carried out to understand GP perceptions of effects of the subsidy on funding levels and continuity of care.

#### LESSONS LEARNED

There has been higher than expected utilisation at A&Ms after-hours as a result of this subsidy. This has resulted in a significant increase in clawback of capitation funding at some practices. Through this combination of quantitative and qualitative data, this research will explore the extent of unintended consequences of this policy on GP practices.

#### IMPLICATIONS

This subsidy aims to achieve universal coverage through low co-payments for patients. This research will shed light on the nature of trade-offs between enhancing access, and other important primary care aims such as continuity of care.

## ED or Not ED; How do Deprivation, Ethnicity and Medical Advice Affect the Choice of After Hours Treatment Provider in Auckland?

Richard Edlin, Lisa Walton, Rob McNeill, Tim Tenbense

University of Auckland

2B.6

### OBJECTIVES

In Auckland, After Hours medical treatment is primarily delivered by Emergency Departments (EDs) and Accident and Medical (A&Ms) centres. The Auckland Regional After Hours Network (ARAHN) has attempted to increase A&M attendances using targeted subsidies. This research explores the potential effects of deprivation (as eligibility for subsidised access), ethnicity and medical advice on where patients present themselves for treatment.

### METHODS

Utilisation data (09/2009–12/2012) from moderate/frequent users (5+ visits) of EDs and ARAHN-participating A&Ms were analysed based on eligibility and ethnicity (Māori, Pacific, Other) to assess the proportion of patients using A&Ms. Patient survey data obtained in 2012 allows investigation of the impact of seeking medical advice on utilisation.

### LESSONS LEARNED

Most moderate/frequent users utilise both A&M and ED services. Those aged >5 and eligible for subsidy, or Māori/Pacific are less likely to only use A&Ms and more likely to only use EDs (vs. a mixture of treatment providers). The 2012 survey suggests that the both the 58% of users eligible for reduced charges and 35% of Māori/Pacific users sampled were more likely to use A&Ms on a single visit, although these were not significant. In contrast, the 33% of respondents reporting having sought advice were significantly more likely to use EDs ( $P < 0.001$ ), with the greatest proportion amongst those who only contacted GPs in-hours (ED 81% vs. 26% no advice).

### IMPLICATIONS

The advice received by patients appears critical in determining at which treatment provider they attend and the substance of this advice warrants further research.

## 2C Pacific Health

13:30-15:00, Monday 2 December 2013, Lambton 3

Chair: Debbie Ryan

### Pacific Navigator Project — Helping Pacific Cancer Patients Navigate Their Way Through the Mists of the Diagnosis, Treatment and Obstacles of the Health System

Victoria Avefua Rasmussen

HealthWEST Ltd., Auckland

2C.1

### OBJECTIVES

To reduce morbidity/mortality and significant inequalities in cancer health outcomes, through improving client access to primary and secondary healthcare by working with Pacific cancer navigators to address obstacles/barriers affecting healthcare service delivery to Pacific cancer patients. Cancer accounts for 31% of all Pacific deaths in Waitemata district compared with 29% nationally.

Pacific Navigator helps Pacific patients and their families negotiate their way through the health system using Pacific tools. The process of “soalaupele” ensures safe and open dialogue between Client and Navigator. The Pacific Navigator uses appropriate language to support/advocate for the patient and their fanau; ensures appropriate education & treatment options; co-ordinates services; identifies obstacles that may delay patients accessing services; provides other emotional, cultural and spiritual support to the cancer patient and their family; and makes referrals to other organisations where appropriate.

### METHODS

Data was collected by focus group interviews from Pacific people diagnosed with cancer (referred by primary/secondary services) interviews with their families, and key informant interviews with stakeholders.

### LESSONS LEARNED

There are many barriers to health care for Pacific cancer patients these

include, current service design & workforce, language, financial, social and cultural. Systemic failures were also discovered which hindered access and care. Relationships take time, regular visits and use of appropriate processes through strong relationships.

### IMPLICATIONS

Improved attendance at clinical appointments and reduction in DNA; Results from focus groups and feedback from clients will be presented as well as statistics on numbers enrolled, social background, living circumstances, type of diagnosis, prognosis and patient demographics.

### Pacific Health Service Nurse Led Clinic Capability Support Evaluation: Findings

Ausaga Faasalele Tanuvasa<sup>1</sup>, Siniva Anae<sup>2</sup>,  
Melania Wright-Leleimalefaga<sup>2</sup>, Lolehea Tukia<sup>2</sup>

<sup>1</sup>Health Services Research Centre, Victoria University of Wellington;  
<sup>2</sup>Pacific Health Service Hutt Valley

2C.2

### OBJECTIVES

Pacific Health Service Hutt Valley delivers a nurse-led clinic to improve health outcomes for Pacific people with chronic health conditions. The aim of this evaluation was to obtain Pacific peoples' views and experiences of the Nurse-Led Clinic in order to provide evidence of what is working well for Pacific peoples so that successful practices can be applied across the health sector, and to support the development and capability of nursing staff in monitoring and evaluation.

### METHODS

This evaluation used qualitative and Pacific approach of “talanoaga faafesaga” (talk face to face) interviews with twenty one participants aged 54 to 72. Confidential interviews were conducted in Samoan, Tokelauan, Tongan and English, audio-taped with permission, and transcribed. The data were analysed thematically and inductively.

### LESSONS LEARNED

The implementation of the Nurse-Led Clinic indicates that Pacific peoples receiving the service have ‘increased awareness’ and have made ‘behavioural changes’ around healthy eating, exercise, smoking, weight loss, improvements in their clinical assessments and DNA’s (do not attend appointments), and their outlook on their general health have been positive. The findings also show that home visits are working well for Pacific peoples, as well as the daily exercise programme, health education sessions, and the flexibility of the ‘walk-in-clinic’ which are all worth the value-for-money spent on this initiative.

### IMPLICATIONS

Having enough resources and supporting clinical leadership in nursing is important to sustain the effectiveness of the Nurse-Led Clinic.

### Samoan Men Making Lifestyle Changes Following Cardio-Vascular Risk Assessment (CVRA)

Tua Tuaeitia-Su’a

Health Services Research Centre, Victoria University of Wellington

2C.3

### OBJECTIVES

There were three key objectives of the study; firstly was to establish Samoan men’s knowledge on lifestyle changes and secondly was to establish whether Samoan men adopted lifestyle changes after CVRA, exploring what helped them in making changes. Lastly, it was to establish barriers or limitations the men experienced which prevented them from adopting lifestyle changes.

### METHODS

A qualitative research design was utilised for this study to facilitate discussion with Samoan men enrolled at a Pacific primary health service. A conceptual framework was developed to reflect the Samoan culture and perspectives incorporating some aspects of Critical Social Theory (CST) and Talanoa, as the cultural methodology. Individual face-to-face interviews were conducted with four Samoan men to capture in-depth views, experiences and stories.

### LESSONS LEARNED

Samoan men adopted lifestyle changes following CVRA, although some experienced some difficulties in sustaining these changes. The common themes that emerged from the study for reasons for Samoan men adopting lifestyle changes highlighted the importance of the men being role models, health services that provide good communication and are

culturally appropriate to suit the needs of Samoan men. They received health education in Samoa, which increased their knowledge that helped them make changes. Barriers to adopting lifestyle changes included the men's cultural values and health practices, financial barriers and the men's own personal choices.

#### IMPLICATIONS

Further research on a greater scale and in different localities is required to explore if Samoan or Pacific men implement lifestyle changes following CVRA as well as some focus on health literacy.

### Evaluation of Plunket's Tongan Mothers Support Group, Heilala and Playgroup Pasifika Beatz

Lanuola Asiasiga<sup>1</sup>, Pele Head-Tuariki<sup>2</sup>

<sup>1</sup>Massey University; <sup>2</sup>Royal New Zealand Plunket Society

2C.4

#### OBJECTIVES

The aim of the Royal New Zealand Plunket Society is to achieve "the best start" for every New Zealand child and to support the development of healthy families. Plunket has set up Pacific play groups but has not been successful in sustaining them except for Heilala (South Auckland) and Pasifika Beatz (West Auckland). The goal of this evaluation was to collect and present evidence about these two Pacific parent support group and playgroup including how they evolved and what supported their success so that the learning could be applied to support and sustain other such groups.

#### METHODS

The evaluation used data gathered from attendance records and interviews with individuals and groups including parents/caregivers, facilitators, and managers. Some of the interviews were conducted in Tongan through an interpreter. Ethics approval was obtained from Plunket's Ethics Committee.

#### LESSONS LEARNED

Sustainability is about parents/caregivers and children continuing their attendance at the group. As evidenced in the literature, the group's facilitator is important in supporting family attendance and has the potential to improve attendance levels. Other factors identified by parents/caregivers as to why they continued to attend the groups included for example: building friendships and learning from and sharing with other parents/caregivers.

#### IMPLICATIONS

Plunket's services are made accessible to Pacific people through ethnic specific staff who are able to articulate Plunket information to the group and vice versa. Pacific voices form a part of the expert body of knowledge within Plunket.

### Exploring Physical and Psychological Wellbeing Among Adults with Type 2 Diabetes: Identifying a Need to Improve the Experience of Pacific Peoples

Charlotte Paddison<sup>1</sup>, Fiasili Vae'au<sup>2</sup>, Mandy Faimalie<sup>2</sup>

<sup>1</sup>Cambridge Centre for Health Services Research, University of Cambridge; <sup>2</sup>Massey University

2C.5

#### OBJECTIVES

To explore the levels of physical and psychological wellbeing among people adults with type 2 diabetes, and to identify the clinical, demographic, and psychological factors that are associated with differences in wellbeing.

#### METHODS

Research participants (N = 615) were randomly selected from a database of primary care records for people with diabetes (N=4,857) in New Zealand. Self-report data were collected through a mailed questionnaire and clinical data from electronic records were obtained with participants' permission.

#### LESSONS LEARNED

Metabolic control (mean HbA1c = 7.5% (sd = 1.5)) varied significant across ethnic groups (p = 0.001) and was highest among New Zealand Europeans (mean HbA1c = 7.1% (sd = .08)), and lowest among Pacific peoples (mean HbA1c = 8.4% (sd = .22)). Pacific groups experienced the highest levels of distress about diabetes (PAID score: 35.15 (sd 2.99) Pacific respondents; 16.39 (sd = 1.03) New Zealand European)) and concern about prescribed medication.

#### IMPLICATIONS

Improvements in health care are needed for Pacific peoples with diabetes. Research has shown that many people experience diabetes-related distress, and health services providing psychological support for people with diabetes are now funded in some regions of New Zealand. These services should attend particularly to the needs of Pacific peoples with diabetes, and should include addressing concerns about medication and emotional distress about diabetes, while maintaining a focus on improving metabolic control.

### Where Do We Start from?

Aliitasi Su'a-Tavila

Victoria University of Wellington

2C.6

#### OBJECTIVES

The declining health of the Pacific population globally is an extreme concern to the World Health Organisation as well as the Pacific Island nations' health systems. From the medically focused research relevant to Pacific health, a non-medical perspective research was undertaken. The objective of this study was to look at the monitoring of service delivery and health program implementation. Equally important was the identification of key constraints to the implementation of activities within the National Health Strategies of the three main islands named Samoa, Fiji and the Cook Islands.

#### METHODS

Document analysis was undertaken as well as consultation with senior officials of the three Pacific Islands. National Health Strategies and Business Plans were the key documents examined as these are crucial to the investigation because they drive the strategic directions for the Ministries of Health within the selected countries.

#### LESSONS LEARNED

This study indicated that the lack of monitoring and evaluation practice contributes to the ineffectiveness of service delivery which impacts on the slow progress of output delivery. As a result, the identification of barriers, strengths and weaknesses within the Ministries of Health plans and strategies was impracticable.

#### IMPLICATIONS

The lack of monitoring and evaluation of Health Strategies in the Pacific minimises the impact of health initiatives in improving population health. Therefore the development of monitoring and evaluation framework is a collaborative work of Pacific Island representatives is needed to address the identified barrier within their National Health Strategies.

## 2D Priority Setting

13:30-15:00, Monday 2 December 2013, Featherston

Chair: Terri Green

### Tackling Disinvestment in Healthcare: A Difficult Reality

Suzanne Robinson<sup>1</sup>, Iestyn Williams<sup>2</sup>, Thomas Daniels<sup>2</sup>, Helen Dickinson<sup>3</sup>

<sup>1</sup>Curtin University; <sup>2</sup>University of Birmingham; <sup>3</sup>University of Melbourne

2D.1

#### OBJECTIVES

Curbing escalating costs of healthcare has been a preoccupation of nation states for decades and has been given extra urgency by the recent economic downturn. Efforts have been made to increase efficiency and to control costs without reducing quality. However the scale of the task necessitates further action beyond efficiency gains and a more recent focus has been given to disinvestment in healthcare. This presentation draws on findings from two separate studies undertaken by the authors, each looked at the experiences of budget holders within the English National Health Service (NHS) and their attempts to implement programmes of disinvestment.

#### METHODS

Study one involved a national survey of 152 budget-holders and a more focused case study approach in five sites. The second study built on the previous work and adopted a qualitative methodology drawing on semi-structured interviews with budget-allocating organisations.

#### LESSONS LEARNED

Findings indicate that experiences of disinvestment varied, with organisations adopting a range of approaches, with much of the 'low

hanging fruit' having already been plucked, more ambitious plans requiring wider engagement and more thorough project management had started to emerge. The narrative of economic hardship provides an opportunity to conduct wider conversations about allocation in publicly-funded healthcare. However, disinvestment requires 'soft' leadership skills alongside the design of robust and evidence-based decision-making processes.

## IMPLICATIONS

Whilst disinvestment activity is not easy there are some very clear messages around the conditions needed to create the climate for change. Drawing on the work and experiences of others can provide important lessons going forward.

## Using Multi-Criteria Decision Analysis (MCDA) to Prioritise Publicly-Funded Health Care

*Paul Hansen, Trudy Sullivan*

*Department of Economics, University of Otago*

2D.2

### OBJECTIVES

As the demand for health care continues to rise, allocating limited resources across the myriad health 'technologies' that are potentially available, is becoming increasingly complex and difficult. We use MCDA to develop a priority-setting framework that incorporates the preferences of key stakeholders for various aspects of health care prioritisation.

### METHODS

Focus groups, representing different sectors of the general population, are used to discover the main criteria that matter to people when thinking about which health technologies to fund. The relative importance of these criteria is established using a nationally distributed online decision survey. The average criteria weights from the survey are then applied to a set of health technologies to demonstrate how key stakeholder preferences can be considered alongside cost and other factors in priority-setting.

### LESSONS LEARNED

All else being equal, respondents give higher relative priority to patients in greater need and to patients who are more likely to benefit from treatment. Greater importance is also placed on treating younger patients, and patients who lead a healthy lifestyle, compared to patients for whom there is no alternative treatment or for whom, as a consequence of treatment, societal benefits arise.

### IMPLICATIONS

Ultimately it is up to health policy decision-makers to choose which treatments to fund within an available budget, but if decisions are made explicitly within a transparent and robust framework that includes all relevant considerations (including the preferences of key stakeholders) then there is likely to be more 'buy-in' and acceptance in the outcome.

## Identifying Consumer Healthcare Priorities: What We Didn't Know, What We Now Know, and How We Used the Nominal Group Technique

*Sara McMillan<sup>1</sup>, Adem Sav<sup>1</sup>, Fiona Kelly<sup>1,2</sup>, Elizabeth Kendall<sup>1</sup>, Jennifer Whitty<sup>1</sup>, Michelle King<sup>1</sup>, Amanda Wheeler<sup>1,2</sup>*

*<sup>1</sup>Griffith University; <sup>2</sup>University of Auckland*

2D.3

### OBJECTIVES

Despite the increasing use of the nominal group technique in eliciting healthcare priorities, there is ambiguity around the best way to implement it. This study explores uncertainty surrounding the use of this method and provides practical recommendations to address this.

### METHODS

A literature search for conceptual papers and studies utilising the nominal group technique was conducted using PubMed as the primary database. This informed the development of a nominal group framework, which was adapted to specifically investigate the priorities of healthcare services from people with chronic conditions and carers. Twenty-six nominal groups (and two pilot groups), with 164 participants, were conducted across four Australian regions between December 2012 and April 2013. This provided in-depth knowledge about the best ways to conduct a nominal group.

### LESSONS LEARNED

The most challenging processes of this technique included the

clarification phase and comparing participant preferences across multiple groups. Our key recommendation to researchers is to avoid burdening participants. This includes explaining the process step-by-step as participant's progress, and to give a maximum of five priorities for participants to choose. Facilitators must be flexible in their approach to allow people with complex health conditions, low literacy levels and different cultural backgrounds to fully participate in a safe space. Finally, although the literature recommends facilitators adopt a neutral approach, this must be adapted to suit the specific needs of each group.

### IMPLICATIONS

This study provides a researcher-friendly guide for conducting effective nominal groups, thereby allowing health consumer voices to be clearly heard.

This project is funded by the Australian Government Department of Health and Ageing as part of the Fifth Community Pharmacy Agreement Research and Development Program managed by The Pharmacy Guild of Australia. The financial assistance provided must not be taken as endorsement of the contents of this report.

## 'Guidelines Adherence with the Polypill?' — A Process Evaluation of a Pragmatic Clinical Trial

*Hueiming Liu<sup>1</sup>, Tracey-Lea Laba<sup>1</sup>, Luciana Massi<sup>1,2</sup>, Stephen Jan<sup>1,2</sup>, PEAK Study Team*

*<sup>1</sup>George Institute for Global Health; <sup>2</sup>University of Sydney*

2D.4

### OBJECTIVES

Kanyini GAP is a pragmatic randomized, controlled trial testing a polypill-based strategy on patient self-reported adherence to guidelines-recommended treatments for primary and secondary prevention of cardiovascular disease (CVD) in a primary health care setting. In this process evaluation, we took a realistic evaluation approach in order to gain a better understanding of how, why and for whom this intervention was found to improve adherence.

### METHODS

In-depth, semi-structured interviews were conducted with 47 healthcare providers and 47 patients from general practices and Aboriginal Medical Services (AMS). Thematic analysis of the interviews was conducted by a multi-disciplinary team and the quantitative trial outcomes were then reviewed alongside the qualitative findings to provide answers to our study objective.

### LESSONS LEARNED

Patients in the polypill arm commented frequently on the cost-savings, ease and convenience of a once-daily pill. Most providers considered a polypill strategy to be a useful facilitator for improving patient adherence. AMS providers and patients thought the strategy was acceptable to and beneficial for Indigenous patients given the high disease burden. Some providers found the fixed-dose regimen inflexible to prescribe, with the dosages often inappropriate for patients with complex management considerations. In its current formulation, the ideal population for the polypill strategy was likely to be the primary prevention group.

### IMPLICATIONS

This study highlighted patient populations that would most likely benefit from the polypill strategy. These findings are important in the translation of the findings, especially as a useful approach to lowering the high CVD burden in Indigenous populations.

## Mainstreaming Health Insurance for the Disadvantaged Children

*Erlyn Rachele Macarayan<sup>1,2</sup>, Melissa Curley<sup>2</sup>, Mark Western<sup>1</sup>*

*<sup>1</sup>Institute for Social Science Research, University of Queensland; <sup>2</sup>School of Political Science and International Studies, University of Queensland*

2D.5

### OBJECTIVES

Child mortality still remains high in the Asian/Pacific region. With the increasing move towards universal health insurance coverage, would such expansions actually translate to better child health outcomes? We determine the influence of expanding publicly-funded health insurance programs on children's health status, particularly the socioeconomically-disadvantaged, and child mortality in select countries from the Asian/Pacific region.

## METHODS

Using multivariate regression models, we determine how increasing allocation for publicly-funded health insurance programs influence child health outcomes and child mortality in select countries. Data sources include the Household, Income, and Labour Dynamics in Australia Survey and the Demographic Health Surveys of the selected countries.

## LESSONS LEARNED

Increasing publicly-funded health insurance programs are significant in reducing child mortality, as well as improving the health outcomes of disadvantaged children before controlling for other time-varying factors. This, however, changes after controlling for socioeconomic characteristics and other government health expenditures.

## IMPLICATIONS

The results support the expansion of publicly-funded health insurance programs. However, the potential gains of such expansion may only be realized along with the implementation of other government programs that will target other accompanying barriers towards accessing health care services.

## Challenges to the Sustainability of the Welfare State Since 1938 Through the Lens of Three Childhood Health Conditions

*Hilary Stace*

*Health Services Research Centre, Victoria University of Wellington*

2D.6

## OBJECTIVES

To understand challenges to the sustainability of the welfare state in the decades since the passing of the Social Security Act using the lens of three childhood health conditions: intellectual disability, child cancer and autism. How has the welfare state regarded its responsibilities for integrated care, treatment and support for these conditions over the last 75 years? What has changed over time?

## METHODS

In 1938 when the Social Security Act was passed, children with intellectual impairment were not expected to live long. Care responsibilities fell either on the family, or on the state (institutionalisation). Child cancer was considered a terminal illness until the 1980s when children began surviving following improved interventions. However, increased expectations for cure meant ever increasing costs. Autism was not named until 1943, but prevalence rates mean about 50,000 New Zealanders are now considered to be on the spectrum.

## LESSONS LEARNED

The 1938 Social Security Act was a philosophical and political response to long term health and social disparities. Integrated care fitted well with this approach. However, valuing children 'to the best of their abilities and to the fullest extent of their powers' proved hard to sustain in the context of expensive child health conditions. Political changes from the 1980s saw integrated approaches replaced by contracting cultures, rationing, ring fencing and calls for more individual responsibility. Meanwhile expectations for improved interventions and family support stretched the state's Budget.

## IMPLICATIONS

Historical reflections can be very useful in understanding current health policy. But the measure of a healthy state is how well we value children, particularly those with high health needs.

## 2E Service Delivery

13:30-15:00, Monday 2 December 2013, Rosanna

Chair: Laura Wilkinson-Meyers

## Evaluating a Training Resource Health Outcomes and Reduce Inequalities for People with Dementia

*Grace O'Sullivan, Clare Hocking, Kathryn McPherson*

*Auckland University of Technology*

2E.1

## OBJECTIVES

This research project has a three step mission: To develop a strengths-based training resource for use in interactive dementia specific workshops. To engage service providers, including management, coordinators, and formal carers, in the training and evaluation of the

resource. To dispel disabling myths by enhancing understanding of the intricacies of dementia, and advocating the benefits of enabling people to live positively with dementia.

## METHODS

Working in collaboration, an inter-disciplinary, inter-university team developed a resource to advance the knowledge and understanding of health service providers who support people who live with mild to moderate dementia in the community. Six key topics that underpin dementia care policy, practice, and research were identified. These include: Exploring the myths of dementia? Medical & scientific aspects, Person-centred care, Communication, Understanding & responding to behavior and, Health, well-being, & the environment. These topics, selected because they shape understandings of dementia, are considered starting points to an integrated approach to dementia care. The perceived utility, acceptability, and support for the training will be evaluated over time, in focus group discussions with participants.

## LESSONS LEARNED

New policies dictate that dementia care services should be delivered by well trained staff. Service organizations are keen to have up-to-date knowledge, yet there are no opportunities to gain advanced knowledge in New Zealand.

## IMPLICATIONS

Once evaluated, this research will provide evidence of what constitutes effective training. Creating opportunities for advanced training will support service planning and delivery, reduce inequalities in health care services for people with dementia and potentially, help to relieve the challenges of this chronic condition.

## Resource Use and Costs of Cancer Care at the End of Life

*Rebecca Reeve, Preeyaporn Srasuebkul, Sallie-Anne Pearson, M. Haas, Rosalie Viney*

*on behalf of the EOL-CC Team*

2E.2

## OBJECTIVES

To quantify resource use and costs in the last 6 months of life in cohort of elderly decedents; to compare resource and costs for decedents with and without cancer; to examine the distribution and predictors of resource use and costs for different health services at the end of life.

## METHODS

Administrative data from the Australian Government Department of Veterans Affairs for patients who died between 2005 and 2009 and who lived in NSW for the last 18 months of life were used to compare utilisation for cancer and non-cancer cohorts. Utilisation was analysed by service type and sub-categories stratified by patient socio-demographic and clinical characteristics. The cohort comprised 9568 people with and 15242 without cancer. Total and monthly utilisation and costs are reported for the last six months of life and by proximity to death.

## LESSONS LEARNED

In the last six months of life, decedents with cancer used more resources than those without cancer in terms of prescribed medicines, health care services (medical, dental, community nursing, allied health), hospitalisations and visits to emergency departments. For both groups, utilisation and costs rose steeply in the last month of life. After adjusting for age, gender, socioeconomic and medical factors, cancer patients have significantly higher rates of resource utilisation and associated costs at the end of life. Comorbidities and dying in hospital also increase utilisation rates and costs.

## IMPLICATIONS

As Australia's population ages and more people die of and with cancer this is expected to impact on health services costs. This research provides information to assist with planning and allocation of resources as these demographic changes occur.

## Systematic Review of Studies Examining Resource Use, Costs, and Quality of End-of-Life Cancer Care: Lessons for Local Health Services Research

*Julia Langton<sup>1</sup>, Bianca Blanch<sup>1</sup>, Annabelle Drew<sup>2</sup>, M. Haas<sup>3</sup>, Jane Ingham<sup>4</sup>, Sallie-Anne Pearson<sup>1</sup>*

*<sup>1</sup>University of Sydney; <sup>2</sup>University of New South Wales; <sup>3</sup>University of Technology Sydney; <sup>4</sup>Sacred Heart Hospice Sydney*

2E.3

## OBJECTIVES

The last year of life is one of the most resource intensive periods in cancer care. We conducted a systematic review to synthesize retrospective observational studies examining resource utilization, costs and quality at the end-of-life in adult cancer patients. Specifically, we examined methodology and outcomes, with a particular focus on studies using quality indicators.

## METHODS

We searched Medline, Embase, CINAHL, and York Centre for Research and Dissemination (1990–2011). Two reviewers screened titles and abstracts of 14,424 articles and 835 full-text, potentially relevant articles. Inclusion criteria were: English-language; at least one resource utilization or cost outcome in adult cancer decedents with solid tumors; outcomes derived from health administrative data; and an exclusive end-of-life or palliative focus. The review included 78 studies examining end-of-life care in over 3.7 million cancer decedents; 55 were from the North America and 5 from Australia.

## LESSONS LEARNED

There were exponential increases in service use and costs as death approached. Hospital services were the main cost driver. Palliative services were relatively underutilized, and associated with lower expenditures than hospital-based care. The 15 studies using quality of care indicators demonstrated significant proportions of up to 33% of patients receive chemotherapy or life sustaining treatments in the last month of life; up to 66% do not receive hospice/palliative services.

## IMPLICATIONS

Observational studies using routinely collected health administrative data have the potential to drive evidence-based palliative care practice and policy. Further refinement of quality of care markers will enhance benchmarking activities across health care jurisdictions, providers, and patient populations.

## Why Do We Continue to Aggressively Intervene at the End of Life? Most Australians Don't Want This

*Terry Flynn<sup>1</sup>, Elisabeth Huynh<sup>1</sup>, Charles Corke<sup>2</sup>*

<sup>1</sup>Centre for the Study of Choice (CenSoC), University of Technology, Sydney; <sup>2</sup>Barwon Health

### 2E.4

## OBJECTIVES

To develop choice-based instruments to elicit attitudes towards end-of-life care among the population; to understand whether attitudes predict preferences for specific end-of-life care interventions.

## METHODS

On-line best-worst scaling (BWS) and DCE surveys for specific end-of-life care treatment were administered to 1166 Australians aged 55+ (including 402 aged 75+). Each respondent was presented with 13 subsets of size four from the master list of 13 end-of-life attitudes, using a balanced incomplete block design, indicating the attitudes that they agreed most and least with. Respondents then faced 8 of 16 specific scenarios (eg. living with/without dementia and were to suffer either a coma/stroke) and chose whether or not to have a specific life-saving treatment. The best-minus worst scores for the 13 attitudes were calculated for each individual and Scale-adjusted Latent Class models (SALC) were estimated for the DCE.

## LESSONS LEARNED

Assumed existing cognitive state strongly predicted acceptability of specific end-of-life treatment. Pro-quality of life attitudes are good at predicting treatment refusal. Overall, there are “treat” (7%) “it depends” (32%) and “don't treat” (61%) groups in the Australian older population aged 75+. Younger Australians include a fourth “unsure” group.

## IMPLICATIONS

Choice based methods, where how frequently I choose an option indicates its value, are consistent with the wider medical paradigm and have mathematical meaning, unlike, for instance, Likert (rating) scales. Easier best-worst attitudinal tasks are a good proxy for more difficult DCE tasks among the large majority of “anti-treatment” respondents but display mixed results among the minority of “pro-treatment” respondents.

## Living with Economic Hardship at the End of Life

*Beverley M. Essue<sup>1,2</sup>, Angela Beaton<sup>3</sup>, Catherine Hull<sup>1</sup>, John Belfrage<sup>4</sup>, Shannon Thompson<sup>4</sup>, Michele Meachen<sup>4</sup>, James A. Gillespie<sup>1</sup>*

<sup>1</sup>Menzies Centre for Health Policy, University of Sydney, Victor Coppleston Building (D02), Sydney; <sup>2</sup>The George Institute for Global Health, PO Box M201 Missenden Road, Sydney; <sup>3</sup>Waikato Institute of Technology, Hamilton; <sup>4</sup>Calvary Health Care Bethlehem, Caulfield

### 2E.5

## OBJECTIVES

Dying patients and their families often face an added burden of economic hardship, especially if they have become ill in the years before expected retirement. In Australia, patients fall through the cracks of the national system of social protection because there are gaps in the access to and provision of health care and social assistance at end of life.

## METHODS

A mixed-method, prospective case study of individuals and their family carers, recruited from a specialist palliative care service in Melbourne, Australia, is presented. Participants took part in semi-structured interviews and completed a two-week diary of all services used and out-of-pocket costs.

## LESSONS LEARNED

Mean out-of-pocket spending was AUD\$369 per month (median:AU\$176, IQR:356) (AU\$1=US\$1=EU€0.73=BGP£0.62; January 2011). Households with hardship were more likely to have a patient who was male, had ceased paid employment earlier than expected due to illness, reported a reduction in income due to illness, had less access to financial resources and used significantly fewer health-related community services. Three factors shaped the participants' experience of hardship: 1) the premature loss of employment capacity and income; 2) the affordability of care and; 3) a welfare system that could not accommodate their complex needs.

## IMPLICATIONS

These results demonstrate the multi-dimensional nature of the economic burden experienced at the end of life and imply the need for nuanced solutions to better support patients and their families. If terminally ill people wish to die at home and are to be supported to do so, policies must take account of the shift in economic burden from the health system onto families.

## Which Residential Long-Term Care Facilities Have Residents at High Risk of Acute Hospitalisation? Why Would We Want to Know? Which Method of Selection Might We Use?

*Joanna B. Broad<sup>1</sup>, Thomas Lumley<sup>2</sup>, Toni Ashton<sup>3</sup>, Ngaire Kerse<sup>4</sup>, Michal Boyd<sup>1</sup>, Martin J. Connolly<sup>1</sup>*

<sup>1</sup>Freemasons' Department of Geriatric Medicine, University of Auckland; <sup>2</sup>Department of Statistics, University of Auckland; <sup>3</sup>Department of Health Systems, University of Auckland; <sup>4</sup>School of Population Health, University of Auckland

### 2E.6

## OBJECTIVES

Good clinical care within long-term care (LTC) facilities potentially reduces acute hospitalisations. Identifying facilities with residents at high risk of acute hospitalisation may enable improved care and avoid hospital-acquired clinical problems. We aim to assess several methods of identifying high-use facilities, and discuss their appropriateness.

## METHODS

Records of 149 LTC facilities (21 characteristics) and 6271 residents (160 characteristics) were collected in 2008 in a census-type survey in greater Auckland. They were linked to routinely-collected information for pre- and post-survey hospitalisations for conditions classified as potentially reducible/avoidable. We compared simple event rates to rankings derived from statistical models that accounted for facility- and resident-level characteristics, and from residuals in those models.

## LESSONS LEARNED

The overall event rate was 0.35 events per person-year of follow-up, with the single best predictor being rate during a recent 3-month period. Statistical models selected different facilities: those ranked higher than 10th/149 by crude rates ranked as low as 48th/149 in models that adjusted for facility-level information, or even lower when using model residuals.

## IMPLICATIONS

When wishing simply to identify facilities with highest rates of hospital presentations, then recent presentation rates suffice. When wishing to inform service design, statistical models to identify factors most associated with events are appropriate. However, when the purpose is to identify and target a few high-use facilities where changes may be achievable, facilities with large residuals in models adjusting for facility- and resident-level care needs may be more appropriate. The purpose of identifying high-use facilities should determine the method choice.

## 2F Indigenous Health

13:30-15:00, Monday 2 December 2013, Wellington

Chair: Amohia Boulton

### Achieving Diabetes Action and Collaborative Change (ADACC) Study

*Paul Ishiguchi<sup>1</sup>, Sandra Eades<sup>1</sup>, Rob Sanson-Fisher<sup>2</sup>, Christine Paul<sup>2</sup>, Paul Zimmet<sup>3</sup>, Mariko Carey<sup>2</sup>, Mark Wenitong<sup>4</sup>, Kristy Forshaw<sup>2</sup>, Heidi Turon<sup>2</sup>*

<sup>1</sup>University of Sydney; <sup>2</sup>University of Newcastle; <sup>3</sup>Baker IDI Heart & Diabetes Institute; <sup>4</sup>National Aboriginal Community Controlled Health Organisation

2F.1

#### INTRODUCTION

Type 2 diabetes is one of the key health problems in the Australian Indigenous population. Increasing the detection, monitoring and appropriate management of this disease will potentially have major health benefits in this vulnerable population. Aboriginal Community Controlled Health Services (ACCHSs) provide primary care and a setting where there is opportunity to partner with health services to reduce the current evidence-practice gap.

#### OBJECTIVES

The aim of this project is to improve adherence to best practice guidelines for type 2 diabetes, in Indigenous Australians.

#### METHODS

This is a cluster randomised controlled trial to test a systems based collaborative approach for type 2 diabetes among Indigenous Australians. Researchers from the University of Sydney, Baker IDI Heart and Diabetes Institute and the University of Newcastle, in collaboration with ACCHSs, designed this study (ADACC) to be culturally appropriate. This trial was designed to work with ACCHSs to bring about organisational change.

Clinical indicators of diabetes screening and management will be collected from the participating health services at the beginning as a baseline. Services will then be randomly allocated to an action (intervention) or wait (control) group. ACCHSs in the action arm will receive a multi-factorial, ecologically based collaborative intervention for 24 months. The approach will be tailored to each ACCHS. The wait group will continue usual care for the 2 year period.

#### RESULTS

It is hypothesised that clinical indicators for screening and management of type 2 diabetes will be 10% better for ACCHSs in the action group compared with ACCHSs in the wait control group.

#### DISCUSSION

There is a gap. Our project is all about bridging that evidenced practice gap using an organisational based approach. Even if they marginally improve, say one in every four patients is adequately controlled, there's room for marginal improvement. At the end of the day, the benefits should be a model for engaging with ACCHSs.

### Negotiating Barriers, Navigating the Maze: First Nation Peoples' Experience of Medical Relocation

*Josée G. Lavoie<sup>1</sup>, Sharon Mah<sup>2</sup>, Joseph Kaufert<sup>2</sup>, Annette J. Browne<sup>3</sup>, John O'Neil<sup>4</sup>*

<sup>1</sup>University of Northern British Columbia; <sup>2</sup>University of Manitoba; <sup>3</sup>University of British Columbia; <sup>4</sup>Simon Fraser University

2F.2

#### OBJECTIVES

This study aimed to document the policy framework that shapes the experience of Canadian First Nations relocating to urban centres to

access medical care; and assess the effectiveness of this policy framework through experiences of First Nation patients and their families.

#### METHODS

Conducted in partnership with the Assembly of Manitoba Chiefs, we analyzed policy coverage rules, as reported on governmental websites and in key policy documents. We engaged government and health services representatives in two focus groups (N = 10, N=19) to explore the credibility of our analysis. In addition, a total of 95 interviews were conducted with First Nations patients experiencing medical relocation (N=28), family members of deceased patients (N=33), First Nations' community-based (N=6) and provincial healthcare providers (N=28). Sampling was purposive and theoretical.

#### RESULTS

Findings show that the policy framework is complex, multijurisdictional, and subject to continuous interpretations by program managers. Evidence from providers and patients suggests that policies are either not as inflexible as reported, that programs managers do have discretion, and/or that program managers balance the implementation of rules with the risks associated with advocates who may "go public" and politicize refusals.

#### IMPLICATIONS

Insufficient attention has been paid to how federal and provincial program managers negotiate the policy context of medical relocation, and make decisions on eligibility. As a result, health providers, administrators, First Nation peoples and/or family members expend considerable time advocating for particular patients/families, perpetuating frustration, distrust, uneven application of rules, and inequitable results.

### Māori Health Literacy Practices in Palliative Care

*Jacquie Kidd<sup>1</sup>, Nicola Collins<sup>1</sup>, Stella Black<sup>1</sup>, Susan Reid<sup>2</sup>, Rawiri Blundell<sup>3</sup>, Tamati Peni<sup>4</sup>, Matua Hone Ahu*

<sup>1</sup>University of Auckland; <sup>2</sup>Workbase Education Trust; <sup>3</sup>Midland Cancer Network; <sup>4</sup>Waikato University

2F.3

#### OBJECTIVES

This paper presents one part of a larger study that aimed to identify access issues for Māori and their whānau to palliative care services from a health literacy perspective. Our presentation focuses on the ways in which whānau obtain, process and understand palliative care information and services, and the development of professional and organisational practices to support and enhance this ability.

#### METHODS

A qualitative kaupapa Māori approach was taken. Semi-structured interviews were held with 21 patients and whānau; focus groups and semi-structured key informant interviews were held with a total of 55 health professionals providing primary or specialist palliative care services in Auckland and Bay of Plenty. Data were qualitatively analysed to elicit key concepts and recurrent themes. Interim and final findings were returned to the research communities for verification.

#### LESSONS LEARNED

Patients and whānau were highly motivated in the context of caring for a loved one, gained a range of knowledge and skills in a number of ways, and were using a range of health literacy practices to manage the health literacy demands placed on them in the palliative care context. Health care professionals and palliative care organisations can be barriers or supporters to the development of health literacy for whānau.

#### IMPLICATIONS

Palliative care providers and their staff already engage on an ongoing basis with patients and whānau, providing an ideal opportunity to actively build health literacy skills. Some health professionals were intuitively building health literacy and these practices could be systematised and applied across palliative care provision.

### Telling Our Own Stories of Recovery: The Transformative Power of Indigenous Storytelling

*Lynne Russell<sup>1</sup>, Vicki Saunders<sup>2</sup>*

<sup>1</sup>Health Services Research Centre, Victoria University of Wellington; <sup>2</sup>James Cook University, Townsville

2F.4

#### OBJECTIVES

Stories have been a primal form of communication since time began.



Through stories we share passions, sadness, hardships and joys; we share meaning and purpose; we connect to others; and we understand our place in the world. Storytelling also plays an essential role in healing and recovery. The process of telling, hearing, sharing and co-generating Indigenous 'stories' of recovery is powerful. So powerful in fact, it has the potential to transform lives.

#### **METHODS**

As Indigenous researchers, both Russell (Māori) and Saunders (Aboriginal) have a passion to improve the health of their people and to reduce the health disparities in their lands. Both have also used storytelling in their respective postdoctoral and doctorate research projects to allow Indigenous peoples to make sense of, and give meaning to, their subjective experiences of mental illness. Their presentation will share the common findings and health gains for Indigenous peoples they have found in doing so.

#### **LESSONS LEARNED**

Storytelling recognises the profound importance of being heard for the story-teller. Internationally the value of mental health stories in recovery has been recognised. Studies show that in being listened to, in telling their life histories, people whose lives have been scarred by mental illness gain control in the restoration of their life, self-worth, validation, confidence, autonomy and self-trust.

#### **IMPLICATIONS**

Awareness of the role of stories in healing and recovery is important to help bridge the knowledge gap between cultural and medical systems. For Indigenous peoples whose understanding of story includes truth-telling, this is particularly significant for optimising health outcomes.

### **Developing an Innovative Model of Care in Indigenous Primary Care: The Strengths of a Developmental Evaluation Framework**

*Samantha Togni<sup>1</sup>, Deborah Askew<sup>2</sup>, Alex Brown<sup>1,3</sup>, Lynne Rogers<sup>2</sup>, Nichola Potter<sup>2</sup>, Roslyn Wharton-Boland<sup>2</sup>, Noel Hayman<sup>2</sup>, Alan Cass<sup>4</sup>*

<sup>1</sup>Baker IDI Heart & Diabetes Institute; <sup>2</sup>Inala Indigenous Health Service; <sup>3</sup>South Australian Health and Medical Research Institute; <sup>4</sup>Menzies School of Health Research

2F5

#### **OBJECTIVES**

Increasingly, Indigenous Australians live with chronic diseases which impact their quality of life. Innovative approaches are required to enable the health system to provide care for these populations in a more appropriate and effective manner. We investigated the potential of a patient-centred, home-based model of chronic disease care to improve access to and integration of care and better identify and meet care needs for individuals and their families.

#### **METHODS**

Using an exploratory study design, researchers and Indigenous primary health care service providers collaborated to develop, implement and adapt the care model. Acknowledging the dynamic setting, we used a developmental evaluation approach to develop the model as a more fully conceptualised, potentially scalable intervention. The evaluator was an essential team member, facilitating reflective team workshops and evaluative thinking, and gathering real-time data integral to inform adaptation.

#### **LESSONS LEARNED**

This approach was effective on multiple levels: strengthening collaboration and learning between researchers and practitioners; embedding a systematic approach to determining what was /was not working, why, and what needed to change; clarification of roles, responsibilities, relationships and scope of practice; and exploring adaptation of the model to enhance its acceptability to the health service, patients and families.

#### **IMPLICATIONS**

Utilising developmental evaluation facilitates the development and adaptation of innovations aiming to change systems, practice or behaviours. This approach strengthens implementation, promotes learning, supports knowledge translation into practice, develops health services' evaluation capacity and strengthens alliances between researchers and practitioners, uniting their respective expertise to address complexity and improve health care delivery.

### **Facilitators and Barriers to the Implementation of Primary Health Care Interventions for Aboriginal and Torres Strait Islander People with Chronic Diseases**

*Odette Gibson<sup>1</sup>, Carol Davy<sup>1</sup>, Edoardo Aromataris<sup>2</sup>, Karolina Lisy<sup>2</sup>, Craig Lockwood<sup>2</sup>, Dagmara Riitano<sup>2</sup>, Katharine Brown<sup>1</sup>, Alex Brown<sup>1</sup>*

<sup>1</sup>Aboriginal Research Unit, South Australian Health and Medical Research Institute; <sup>2</sup>Joanna Briggs Institute, School of Translational Health Science, University of Adelaide

2F6

#### **OBJECTIVES**

To identify and synthesise the international evidence on factors that support or inhibit the implementation of interventions aimed at improving chronic disease (CD) care for Indigenous people within the primary health care (PHC) setting.

#### **METHODS**

A comprehensive Joanna Briggs Institute (JBI) systematic review of evidence, available between 1998 and 2013, was conducted. The population of interest was Indigenous people in Australia, New Zealand, Canada or the United States, with one or more of the following CDs — cardiovascular, kidney, respiratory, diabetes, depression, HIV/AIDS — who received care management in a PHC setting. Eligible studies were critically appraised for methodological quality. Findings extracted from included studies were synthesised using a meta-aggregative approach or a narrative synthesis.

#### **LESSONS LEARNED**

The attitudes, beliefs, expectations, understandings and knowledge arising from participation in CD prevention or management interventions by Indigenous patients and communities, health care providers, and policy and decision makers that support or inhibit uptake of care in the PHC setting will be presented. In addition, PHC system factors that support or inhibit the implementation of CD interventions for Indigenous populations will be discussed.

#### **IMPLICATIONS**

When designing CD interventions in PHC settings, in addition to providing evidence-based care and adequate resourcing, the health service must be responsive and respectful to the needs and values of Indigenous people so they may willingly accept and access them. This systematic review provides evidence of important considerations necessary for implementation of appropriate care for Indigenous patients with a CD, and importantly highlights barriers that may inhibit progress.

## **Plenary Session 2**

15:30-16:50, Monday 2 December 2013, Lambton 1-3

Chair: Amohia Boulton

### **Research in Aboriginal and Islander Community Controlled Health Services**

*Selwyn Button*

*Queensland Aboriginal and Islander Health Council*

PL2.1

Over many years research has been conducted in Aboriginal and Islander Community Controlled Health Services (AICCHS) across Qld. Much effort has not been for the benefit of local communities or seeking to improve health services, but traditionally focussed on supporting researchers needs and desires to progress in the field. From 2006 to 2009, QAIHC in collaboration with the University of Queensland ran a Centre for Research Excellence focussing on improving health outcomes for Indigenous people through AICCHS. This process focussed on projects with varied success and impact upon practice, which ultimately lead to limited improvement in outcomes. This was not because the projects targeted the wrong things, but merely because the projects were not focussing on areas of identified need by communities and staff, yet considered issues relevant to research institutes and grant submission processes.

Post this period, QAIHC undertook a review of products developed and impact in local communities to determine the most beneficial piece of information was being paid the least attention. This was a simple set of core primary health care indicators, when collated together and collected from all services showed not only those areas of most identified need requiring attention, but also how collectively services were monitoring and tracking over time. This set of indicators became the

primary point of data collection from all services to demonstrate access, effectiveness, identifying priority needs and areas for improvement that lead to establishing one of the largest sets of data collected by Indigenous people for Indigenous people.

## Keynote Title to be Announced

*Simon Royal*

*CEO, National Hauora Coalition*

PL2.2

No abstract was available at the time of publication.

## Plenary Session 3

17:00-18:10, Monday 2 December 2013, Lambton 1-3

Chair: Janice Wilson

### Aspirations, Expectations and Reality: Evidence for Health of Pacific Peoples' Health

*Debbie Ryan*

*Pacific Perspectives Ltd. (PPL)*

PL3.1

The Pacific population in New Zealand is now of considerable size and significance. It is characterised by its youthfulness, rapid growth and high levels of urbanisation. A small but growing evidence base on the health needs of Pacific peoples has identified poorer health outcomes across a range of indicators; higher exposure to risk factors for health; and barriers to accessing quality health care to meet their needs. International and New Zealand evidence highlights that the underlying causes of poor health for ethnic minority groups include social, environmental and economic factors.

This paper presents an overview of the evidence for Pacific health, from research projects undertaken by PPL between 2010 and 2013. The findings from literature reviews; analysis of District Health Board and national health system performance reports; qualitative research with focus groups of Pacific families and ethnic community groups, and interviews with health system personnel and community stakeholders are discussed.

Key findings include the gap between the aspirations, expectations and world views of Pacific peoples and their experiences of health services. Pacific health providers and the Pacific health workforce are making an important contribution to addressing these issues by increasing awareness of the importance of ethnic and linguistic diversity and culturally competent care.

Addressing the multifaceted and complex issues, many of which lie outside the health sector, requires a systems approach to policy and implementation. This begins with recognition that there is no single solution, and that adaptation, flexibility and transparency are required. There is need for improved monitoring and evaluation, based on honest and robust data. Pacific peoples and communities participation in these processes is essential.

### A Talk About Less Talk and More Action in Moving Disinvestment Forward: Examples of Success and What They Highlight on the Road Ahead

*Adam Elshaug*

*Menzies Centre for Health Policy, Sydney School of Public Health, University of Sydney*

PL3.2

There has been a surge — some might say a resurgence — in quality, sustainability, health technology reassessment and disinvestment initiatives worldwide. With jurisdictions increasingly contemplating moves and piloting processes, critique has arisen from some quarters that there is too much talk and not enough action. I will argue that some groups contemplating, piloting and talking the most (within their own organisations and/or with others) have in fact demonstrated careful planning that has resulted in clear successes. Examples will be given, including the ingredients that have contributed to success. Some successes have come in enacting disinvestment, and the policy development processes in support thereof. Others have come in the interrogation of large datasets for pinpointing waste. An example will be provided from soon-to-be-published results of a large scale investigation

in to the prevalence of 26 low-value practices in U.S. Medicare. This talk will conclude with a summary of what these lessons have to offer those contemplating a journey down this road.

## Plenary Session 4

08:30-10:00, Tuesday 3 December 2013, Lambton 1-3

Chair: Terri Green

### Whānau Ora: What Does it Mean in Practice?

*Heather Gifford*

*Whakaue Research for Māori Health and Development, New Zealand*

PL4.1

No abstract was available at the time of publication.

### Health System Changes in Australia: Creating the Infrastructure for Reform

*Stephen Duckett*

*Health Program, Grattan Institute*

PL4.2

A wave of reform rhetoric has swept Australia over the last five years, stimulated by the election of the Rudd Labor government in 2007. Elected with big promises (including a potential referendum to change system governance from a complex federal state mosaic to federal control), a 'National Health and Hospitals Reform Commission' was appointed with breathless urgency, charged with producing an interim report potentially to influence upcoming federal-state negotiations on a new health agreement, together with a final, broader report.

Following an extensive 'consultation' road show, Prime Minister Rudd cherry-picked aspects of the Commission's final report, changed others, and invented new proposals not recommended by the Commission as his proposal for implementation. He almost succeeded. New Prime Minister Gillard picked up the pieces and negotiated what became the 'Reform Agenda'.

As of late 2013, the key elements implemented have been the establishment of an alphabet soup of new Commonwealth agencies creating a new framework for national (as opposed to Federal Government) governance. Key national agencies have been created to provide transparency for (some aspects) of system performance, develop measures of activity for 'public hospital services' and price that activity, and set an agenda for other aspects of the health system.

Changes were also made at local level with boards created for hospital 'networks' in most states, together with new primary care organisations, termed Medicare Locals (and no, they are not local offices of Medicare).

## 3A Methods

10:30-12:00, Tuesday 3 December 2013, Lambton 1

Chair: Ray Kirk

### Research to Inform Alcohol and Other Drug System Design and Development in a Climate of Change

*Lynda Berends<sup>1,2</sup>, Penny Buykx<sup>3,4</sup>, Robin Room<sup>1,5</sup>, Dan I. Lubman<sup>1,2</sup>*

<sup>1</sup>Turning Point Alcohol & Drug Centre Eastern Health; <sup>2</sup>Faculty of Medicine Nursing and Health Sciences, Monash University; <sup>3</sup>School of Rural Health, Monash University; <sup>4</sup>Centre of Research Excellence in Rural and Remote Primary Health Care; <sup>5</sup>Melbourne School of Population and Global Health, University of Melbourne

3A.1

#### OBJECTIVES

Australia's health arena is undergoing major reform to maximise benefits from the investment of public monies. With competing and escalating demand across health, there is a particular risk to alcohol and other drug (AOD) systems which are typically separated from other health services and involve a highly stigmatised client base. This project therefore aims to provide timely, comprehensive and policy relevant evidence about service structure, funding, orientation and utilisation to inform system development, including the intersection with other health services.

#### METHODS

The research program has three components: the development of

AOD system descriptions for each Australian state/territory, (values, investment, clients, settings, areas of challenge and innovation); an exploration of service use journeys in the year before AOD treatment entry and 12 months afterward involving interviews with 800 clients (health and welfare services, contact with justice) and data linkage (AOD, ED, hospital admission); perspectives from international experts following their consideration of information from components one and two.

#### LESSONS LEARNED

Component one involves imperfect and disparate data sets and includes extreme contrasts regarding the salience of particular issues (e.g., drug use, client characteristics, remoteness) across these jurisdictions. It has been important to balance methodological consistency with the need to account for local conditions. Methodological principles from different areas of research have been applied to support rigour and relevance to context.

#### IMPLICATIONS

The breadth and depth of our research approach provides a comprehensive basis for system reform, while challenges to the process include the rapid pace of policy and system change.

### Mixed-Methods Approaches and Health Services Research: Reflections on Two Implementation Studies of Health Service Initiatives

*Tim Tenbense<sup>1</sup>, Sarah Appleton<sup>1,2</sup>, Peter Carswell<sup>1</sup>, Laura Wilkinson-Meyers<sup>1</sup>, Adrian Field<sup>2</sup>, Linda M. Chalmers<sup>1</sup>, Peter Jones<sup>1,3</sup>*

<sup>1</sup>University of Auckland; <sup>2</sup>Synergia Consulting, Auckland; <sup>3</sup>Auckland District Health Board

3A.2

#### OBJECTIVES

Increasingly, sophisticated research designs that combine quantitative and qualitative research methods are required in order to understand the dynamics of implementing major health service initiatives. We outline the research design of two mixed-methods projects that investigate the implementation of major health service initiatives in New Zealand: the implementation of New Zealand's ED health target, and the evaluation of initiatives to improve urgent care services in Auckland.

#### METHODS

The ED project involved large datasets primary and secondary clinical outcome data, semi-structured interviews with key clinicians and managers, surveys of hospital resource use and system dynamics model building. The urgent care evaluation incorporated utilisation data, patient surveys, key informant interviews and focus groups of patients and providers.

#### LESSONS LEARNED

Data analysis and interpretation processes can combine the data from the methods in a parallel, integrated, or iterative manner. The original research questions are the starting point of this process, but the iterative nature of the design means that other important research questions arise. We provide examples of insights gained from iterative analysis that help to make sense of implementation processes, and reflect on the challenges and benefits of mixed-methods research.

#### IMPLICATIONS

There is considerable scope for many health services research projects to be enhanced by mixed-methods design. We suggest that researchers that have access to high quality quantitative data should actively consider ways in which qualitative data can answer 'how and why' questions. Conversely, sophisticated qualitative research can be most useful for researchers and policymakers when linked to robust quantitative analysis.

### Towards a New Definition of Health

*Jaikishan Desai*

*Health Services Research Centre, Victoria University of Wellington*

3A.3

#### OBJECTIVES

There is general agreement that the WHO definition of health, as "a state of physical, mental, and social well-being," is not analytically useful, but no alternative has been offered in the literature. In this paper I develop a definition of health that is directly related to human biology and amenable to consistent measurement across individuals and over time.

#### METHODS

The paper first discusses the WHO definition and its limitations for analyzing health behaviour and consistently measuring health status and functioning. Next it examines some basic features of human biology, and the environment within which human lives are lived. This examination leads to a resilience-oriented definition of health which is anchored in human biology, consistent with the "ability to adapt" definition suggested by an editorial in the Lancet (2009), and objectively measurable with a range of biomarkers. A latent variable measure (of health) is suggested, one that can be developed using current medical knowledge and health information, and then updated as an increasing range of biomarker data become available.

#### LESSONS LEARNED

An objective definition of health is preferable to a subjective definition based on well-being. Such a definition can be developed by focussing on some key features of human biology and the organic environment within which lives are lived.

#### IMPLICATIONS

Defining health in terms of resilience provides (a) a clear and objective basis for measuring varying levels of healthiness (death, disability, illness, and healthy functioning) across a population, and (b) drawing links between vulnerability, maturation, and frailty of health over the life cycle.

### Linking Population Health Need to Level of GP Services: One Part of a Needs-Based Model of Planning the GP Workforce

*Caroline Laurence, Jonathan Karnon, Michelle Lorimer, Catherine Chittleborough*

*University of Adelaide*

3A.4

#### OBJECTIVES

To develop a needs-based simulation model for general practice that can be applied at regional and local level.

#### METHODS

The simulation model has four modules: training, supply, work and productivity, and population need. Determining appropriate measurements for population need for GP services has been problematic. The approach taken has been to use burden of disease as a measure of health need in the population and to match this to need for GP services. This has required the linking of data from SA Burden of Disease project with BEACH GP activity data in order to determine a level of GP utilisation based on incidence and prevalence rates of conditions managed by GPs. This has been used to determine the impact such rates have on visits to the GP and the number of GPs that are required to meet that level of service.

#### LESSONS LEARNED

Determining an effective measurement of need for GP services based on projected incidence and prevalence data have been difficult due to the paucity of data, the problems with linking different datasets and the complexity of the primary care setting. Despite the limitations and assumptions, the results provide a better measurement of need for GP services than age and sex population projections.

#### IMPLICATIONS

The developmental work on quantifying the future impact of burden of disease on GP services levels will contribute to health workforce planning research in Australia and will potentially provide a more relevant framework to forecast the future health workforce requirements than more traditional approaches.

### Model for Estimating the Population Prevalence of Undiagnosed Diabetes from GP Practice Data: A Spatial-Statistical Analysis

*Nasser Bagheri<sup>1</sup>, Ian McRae<sup>1</sup>, Paul Konings<sup>1</sup>, Peter Del Fante<sup>2</sup>, Kirsty Douglas<sup>1</sup>, Bob Adams<sup>3</sup>*

<sup>1</sup>Australian National University; <sup>2</sup>Healthfirst Network; <sup>3</sup>University of Adelaide

3A.5

#### OBJECTIVES

The aim of this research was to use GP practice level data to identify areas with high levels of undiagnosed diabetes.

## METHODS

We used data from the North West Adelaide Survey (NWAHS) to develop a model (based on demographic and clinical measures) to predict total diabetes (defined as diagnosed diabetes or FBS  $\geq$  7.0mmol/L or HbA1c  $\geq$  6.5mmol/L). This model was then applied to GP practice data to predict the total level of diabetes in each small area. The discrepancy between total expected and already diagnosed was defined as undiagnosed diabetes prevalence.

The area level prevalence was calculated by aggregating percentage of undiagnosed diabetes at statistical area level one (SA1) in the study area. The pattern of diagnosed and undiagnosed diabetes were also visualised to highlight the areas with greater prevalence rate.

## LESSONS LEARNED

The average prevalence rates were 12.8%, 9.9% and 2.9% for total expected diabetes, diagnosed and undiagnosed respectively in the study area. Higher expected and observed diabetes prevalence were seen in the lower socioeconomic status areas. The prevalence of undiagnosed diabetes was slightly higher in the least disadvantaged areas. Diagnosed, and undiagnosed diabetes prevalence varied widely between the SA1 areas.

## IMPLICATIONS

This approach both flags the possibility that undiagnosed diabetes may be a problem of the less disadvantaged social groups, and can be used as a tool to identify areas of high levels of unmet needs for diabetes which would enable policy makers for geographic targeting of effective interventions.

## Enhancing Ascertainment of Smoking in Pregnancy Using Linked Population Health Data

*Duong Tran<sup>1</sup>, Christine Roberts<sup>2</sup>, Alys Havard<sup>1</sup>, Louisa Jorm<sup>1</sup>*

<sup>1</sup>University of Western Sydney; <sup>2</sup>University of Sydney

### 3A.6

## OBJECTIVES

To enhance ascertainment of smoking in pregnancy (SIP) using the linkage of population health records.

## METHODS

Birth records (2001–2010) in the NSW Perinatal Data Collection were linked to hospital records in the Admitted Patient Data Collection. SIP recording in these datasets has previously been validated. To enhance SIP ascertainment, Algorithm 1 combined SIP recording in birth and birth admission records, and Algorithm 2 further used other hospital records during the pregnancy. We estimated prevalence of SIP and odds ratios for the relationship between SIP and obstetric outcomes including placental abruption, preterm birth, stillbirth and small-for-gestation-age birth weight, using SIP ascertained by the Algorithms, birth records only and birth admission record only.

## LESSONS LEARNED

The study included 846,039 women. Algorithm 1 ascertained 127,612 smokers [overall SIP prevalence 15.1%], representing a 9.6% increase versus birth records only (n=116,387, [13.8%]) and a 54.6% increase versus birth admission records only (n=82,565, [9.8%]). Using Algorithm 1 enumeration, 91.2% and 64.7% of smokers were respectively identified from birth and birth admission records, which were comparable to previously reported sensitivities of SIP (89.6% and 66.3%). Algorithm 2 increased SIP ascertainment only slightly compared with Algorithm 1. SIP was under-reported in women with higher socio-economic status and those born in non-English speaking countries. Compared to SIP ascertained from birth records only and birth admission record only, the Algorithms generated higher SIP prevalence estimates but similar adjusted odds ratios for the relationship between SIP and obstetric outcomes.

## IMPLICATIONS

Combining the data from the birth and hospital records led to higher SIP prevalence. The trend in under-ascertainment of SIP in subgroups of obstetric population should be taken into account in interpreting studies of SIP in these sub-populations.

## 3B Integration, Teamwork and Workforce Change

10:30-12:00, Tuesday 3 December 2013, Lambton 2

Chair: Margaret Kelaheer

## A Governance Model for Integrated Primary/Secondary Care for the Health Reforming First World

*Caroline Nicholson*

*Mater/UQ Centre for Primary Health Care Innovation*

### 3B.1

## AIM AND RATIONALE

There is an identified need for more robust and high-quality evidence to inform decisions about how to develop and deliver integrated primary/secondary health care. There is no single model of integrated care that is suited to all contexts, settings and circumstances. Researchers and policy-makers need to work together with practitioners to develop, evaluate and implement effective approaches. For the goals of health reform to be realised primary health care and secondary care organisations must work together to achieve co-ordinated and integrated healthcare services. This study aims to describe the elements of a health care system capable of supporting effective integrated primary/secondary care.

## METHODS

This study presents the results of a systematic review in the development of a framework to achieve a 'best practice' governance model for integrated primary/secondary health care.

## FINDINGS

The systematic review identifies ten elements linked to successful primary/secondary health care integration projects — a population focus; shared clinical priorities; joint planning; using data as a quality improvement tool across the continuum; innovation; effective change management; an appropriately trained workforce; integrated information communication systems; incentives; and, patient engagement.

## IMPLICATIONS

The framework is being tested by linking the operational/organisational requirements to the clinical governance of complex diabetes services in Brisbane South. It provides an opportunity to learn via qualitative research — not just outcomes but also what are the challenges and intangibles, and inform future policy.

## How Do You Build Inter-Professional Networks at the Primary and Secondary Care Interface?

*Nelson Aguirre, Peter Carswell, Tim Kenealy*

*School of Population Health, University of Auckland*

### 3B.2

## OBJECTIVES

Patterns of interaction between health professionals might influence primary care physician prescription behaviours. Communication, collaboration and coordination are some of the mechanisms that may enable diffusion of novel information, advice and best practices. The goal of this study was to explore factors that may act as obstacles or facilitators for building networks between general practitioners, specialist doctors and specialist nurses that are associated with appropriate and proactive primary care prescribing (low clinical inertia).

## METHODS

The setting was a chronic care management programme for people with diabetes attending general practices around a large teaching hospital in Auckland, New Zealand. Data were collected through semi-structured interviews with 6 GPs, 1 practice nurse, 2 specialist physicians and 8 diabetes nurse specialists purposively selected according to high and low performing in intensification of therapy and close interaction with secondary care health professionals. Qualitative content analysis and conceptual mapping were performed to identify themes and concepts that illustrate the main factors associated with network development.

## LESSONS LEARNED

Seven factors emerged from this analysis, outlined in each one barriers and facilitators for network development: leadership style, power, similarity, proximity, social capital, social cohesion and trust.

## IMPLICATIONS

Facilitating factors that may help inter-professional network development may contribute to improving patient outcomes. A social network approach to evaluating interactions between individuals and organizations may provide valuable insights with implications for clinical practice and policy to support building and maintaining professional networks that are high-performing in terms of patient care.

## How Does Medical Politics Influence Policy Implementation? The New Zealand Experience of the Emergency Department Time Target

*Linda M. Chalmers*

*University of Auckland*

3B.3

### OBJECTIVES

Context plays an important role in health policy implementation. For both formulators of health policy and front-line professionals charged with implementing such directives, the question remains, which dimensions of context matter? The 6 hour ED time target was introduced to New Zealand's public health sector in 2009. In this presentation, two themes regarding context for implementation of the target are explored.

### METHODS

Sixty-eight interviews were conducted with 53 clinicians and managers from ED and the wider hospital over two rounds of data collection in 2011 and 2012. Participants were recruited from four case study hospitals in NZ. Interview data was analysed inductively to develop themes regarding target implementation. This research is one stream of a larger project investigating the consequences of NZ's ED target.

### LESSONS LEARNED

Medical specialization, including the boundaries, domains and status of multiple medical specialties, and the tensions between them, is a critical dimension of context for target implementation. The vertical division of labour in medicine, between consultants and junior medical staff is the second context dimension presented here. Both are significant contextual factors that shape the perceptions and responses of those implementing the target, and may play out differently at different hospitals.

### IMPLICATIONS

The challenges of ED target implementation in New Zealand hospitals concern more than well-known issues of silos, structural divisions, professional and values tensions. Rather, the micro level socio-political world of medical specialisation and division of labour are powerful features of the context which may confound and complicate both process and outcomes for implementation of ED time targets.

## Designing a Telehealth Model of Care for Palliative Care Patients Living in the Community

*Kate Swetenham<sup>1</sup>, Jennifer Tieman<sup>2</sup>, Tim To<sup>1</sup>, Deidre Morgan<sup>2</sup>, David Currow<sup>2</sup>*

<sup>1</sup>Southern Adelaide Palliative Services; <sup>2</sup>Flinders University

3B.4

### OBJECTIVES

Health systems are looking for new approaches to facilitate care in community settings and telehealth has been seen as one such enabler. Patients with palliative care needs will be cared for some, or all, of the period of their illness, in the home. Many patients will have a relationship with a palliative care service. This study looks at the processes involved in developing a telehealth model of community palliative care.

### METHODS

A Palliative Care (Telehealth) Research Group was established to guide the development of the telehealth model. Membership included the Service Director, clinical staff, and researchers. The Research Group had an ongoing involvement with the technical and operational arm of the project and reported to the NBN Project Steering Committee.

Elements for inclusion in the model were based on a review of current service delivery. Assessment tools used in the model were evidence based. Staff delivering the service participated from the commencement of the project. User testing provided feedback from patients and carers.

### LESSONS LEARNED

Incorporating telehealth in community service models offers the possibility of enhanced care. However, such interventions are complex,

and development requires consideration of a diverse set of elements. Telehealth models need to have a clear health value proposition. Technological competence and interest varies with service teams. Developing new models requires articulation of current practice, much of which may not be codified.

### IMPLICATIONS

Telehealth is a significant policy driver. Using telehealth in service delivery models requires significant development work and depends on expert clinical involvement.

### ACKNOWLEDGEMENTS

This work was funded by the NBN Telehealth Pilots Program.

## Promising Initiatives for Integrated Service Delivery

*Petra Bywood, Jodie Oliver-Baxter, Lynsey Brown*

*Primary Health Care Research and Information Service*

3B.5

### OBJECTIVES

Health service users require local services that meet their needs, are connected and easy to navigate. Delivering well integrated and coordinated health care services is challenging. This review aimed to identify integrated care initiatives that improved outcomes for health service users.

### METHODS

A pragmatic literature review was undertaken using a range of electronic databases, websites and grey literature sources.

### LESSONS LEARNED

Diverse models of integrated care have been established across Australia. The most promising initiatives include: Primary Care Partnerships, community-oriented primary health care centres, GP Super Clinics and comprehensive primary health care approaches. The key mechanisms underlying these initiatives are effective communication and support; appropriate structural arrangements, use of technology and tailoring of services to meet local needs. However, many challenges remain, including limited evidence of effectiveness; limited integration with hospitals; poor alignment with other service boundaries; and lack of appropriate measures to evaluate integration efforts.

### IMPLICATIONS

While evidence from integrated health service delivery projects has demonstrated improved outcomes, experiences and satisfaction for patients, upstream policies and organisational/system initiatives are also needed to enable effective and efficient integrated care at the service delivery level.

## Partnerships in Innovative Primary Health Care Practice to Improve Health Outcomes for Young Pacific People

*Ofa Dewes<sup>1</sup>, C. Raina Elley<sup>2</sup>*

<sup>1</sup>Pacific Health; <sup>2</sup>Department of General Practice & Primary Health Care, School of Population Health, University of Auckland

3B.6

### OBJECTIVES

Improve the poor health statistics of a predominantly Pacific student population by providing direct collaborative support for decile 1 secondary school clinic to:

1. Reduce acute rheumatic fever and the burden of future rheumatic heart disease;
2. Reduce teen pregnancy;
3. Reduce sexually transmitted infections;
4. Reduce sepsis (particularly skin infections); and
5. Reduce obesity prevalence.

### LESSONS LEARNED

Schools and their clinics are a unique gateway for Pacific students and potentially the best place to reinforce positive lifestyle behaviours in collaboration with local health service providers. With minimal extra resources and setting-up of local collaborations between general practice and schools with high Pacific enrolments, this community model of health and preventive care could be replicated in a systematic way to improve the health and future of young Pacific people. Sustainable school solutions to strengthening leadership capacity and capability of

school community to reinforce values and relationships that promote healthy lifestyle behaviours are urgently needed.

### IMPLICATIONS

The partnership has implications for public health policy, Pacific people, schools, and health service providers, as it has been able to demonstrate a simple and highly cost-effective model that could be replicated more systematically throughout high-needs areas.

## 3C Services for Populations

10:30-12:00, Tuesday 3 December 2013, Lambton 3

Chair: Rob McNeill

### Access to Long-Term Primary Health Care for Refugees: Should it be About Personal Preference or is it a Systems Issue?

Virginia Lewis<sup>1</sup>, Geraldine Marsh<sup>1</sup>, Francine Hanley<sup>1</sup>, Jenny Macmillan<sup>1</sup>, Lyn Morgain<sup>2</sup>, Kate Silburn<sup>1</sup>, Libby Kalucy<sup>1</sup>, Judith Dwyer<sup>3</sup>, Cathy Mead<sup>1</sup>

<sup>1</sup>Australian Institute for Primary Care & Ageing, La Trobe University; <sup>2</sup>Western Region Health Centre; <sup>3</sup>Flinders University

#### 3C.1

### OBJECTIVES

Health policy recognises that some people need more healthcare than others to achieve equitable health outcomes. Responding to the health needs of vulnerable groups often involves the development of programs specific to the groups' needs; however, given the demands on the health system, it is important that such targeted services are not only provided when required, but that they continue to be viable and able to respond to new demands. This study explored how vulnerability is understood and how access to primary healthcare is determined for refugees as an example of a vulnerable group.

### METHODS

A literature review was undertaken to develop a theoretical framework for the qualitative study. Semi-structured interviews were conducted with 18 staff from a community health service (including 6 GPs) and six GPs in private practice. Consumers also took part in face-to-face individual interviews (n=22), with interpreters as required.

### LESSONS LEARNED

1. The findings invite a more nuanced approach when applying membership of population-based categories to prioritise access to CPHC.
2. The individual preferences of GPs and consumers need to be recognised, and potentially managed, as significant factors driving access to appropriate care.

### IMPLICATIONS

The study led to the identification of a range of strategies that can be implemented at different levels — consumers, health professionals (including GPs), managers of services and programs, and bodies with responsibility for planning, at the regional, state & commonwealth level — to promote a more systematic and sustainable approach to the effective management of the PHC needs of potentially “vulnerable” consumers.

### Recognising and Responding to Social Adversity: The Experience of Afghan Families and Health Professionals

Jane Yelland<sup>1</sup>, Elisha Riggs<sup>1</sup>, Fatema Fouladi<sup>1</sup>, Sayed Wahidi<sup>1</sup>, Sue Casey<sup>2</sup>, Donna Chesters<sup>2</sup>, Philippa Duell-Piening<sup>2</sup>, Josef Szwarc<sup>2</sup>, Stephanie Brown<sup>1,3</sup>

<sup>1</sup>Healthy Mothers Healthy Families Research Group, Murdoch Childrens Research Institute; <sup>2</sup>Victorian Foundation for Survivors of Torture; <sup>3</sup>General Practice and Primary Health Care and School of Population Health, University of Melbourne

#### 3C.2

### OBJECTIVES

To explore Afghan women and men's experience of being asked about their social circumstances in maternity and postnatal care and health professionals' approach to recognising and responding to social adversity amongst their refugee clients.

### METHODS

Interviews with: i) 30 Afghan women and men in the first postnatal year, conducted by multilingual, bicultural researchers in outer metropolitan Melbourne; and ii) 34 midwives, medical practitioners, maternal child health nurses and community workers providing care to families of refugee background.

### LESSONS LEARNED

Afghan families reported low levels of inquiry about their social circumstances despite significant levels of hardship. Whilst two-thirds of women (10/16) reported that health professionals had asked them about their family in Australia and overseas, far fewer were asked about relationship issues (5/16) or family violence (2/16). None of the 16 women or the 14 men were asked about housing or legal problems. Afghan families were unclear as to whether the role of health professionals involved asking about their 'personal' life but several wished they had been asked. Many health professionals, particularly those providing antenatal care, identified constraints in assessing social and emotional well-being of their Afghan clients, including: the availability and gender of professional interpreters; husbands providing language support; the appropriateness of standard assessment tools; length of appointment time particularly for families requiring interpreting; and clinician's skills in psychosocial assessment and knowledge of referral services.

### IMPLICATIONS

Health professionals are challenged in knowing how to respond to the extreme social disadvantage, social isolation, and low health literacy of refugee families.

### The ACTION Study: A Large Observational Study to Better Understand the Epidemiological, Social and Economic Impact of Cancer in Southeast Asia

Merel Kimman<sup>1,2</sup>, Stephen Jan<sup>1,2</sup>, David Kingston<sup>3</sup>, Mark Woodward<sup>1</sup>

<sup>1</sup>George Institute for Global Health; <sup>2</sup>University of Sydney; <sup>3</sup>University of New South Wales

#### 3C.3

### OBJECTIVES

Cancer can be a major cause of poverty. This may be due either to the costs of treating and managing the illness as well as its impact upon people's ability to work. This particularly affects countries that lack comprehensive social health insurance systems and other types of social safety nets. The ACTION study is a large observational study assessing the health and economic impact of cancer in Southeast Asia.

### METHODS

Over 9,500 newly diagnosed cancer patients from eight countries have been recruited and are currently followed for one year. Patients are interviewed on multiple time points and complete prospective cost diaries. Clinical data is collected from medical records. To account for the differing means by which economic circumstances of households are affected by illness, three measures are deployed: financial catastrophe, illness induced poverty and economic hardship/financial stress. Health-related quality of life is assessed by the EORTC QLQ-C30 and EQ-5D.

### LESSONS LEARNED

Using data from 9,500 baseline interviews and a number of follow-up interviews, we will present data on a range of individual, household and community level characteristics and associations between them: cancer site, treatment modality, household income, health insurance status, health service use, out-of-pocket expenses and health-related quality of life.

### IMPLICATIONS

Findings of this landmark cross-cultural study highlight the scale of the cancer problem and can identify priorities for further health services research and policy. It also provides a critical analysis and guidance on what measures best capture multi-dimensional aspects of economic hardship associated with illness.

### Effects of Results-Based Financing on Patient Satisfaction and Perceived Quality of Care in Afghanistan

Essa Tawfiq

Victoria University of Wellington

#### 3C.4

## OBJECTIVES

This paper presents the findings from a comparative analysis on the effects of a results-based financing (RBF) program on patient satisfaction and perceived quality of care in primary healthcare facilities in Afghanistan. These facilities had been randomly allocated as intervention and control facilities before the start of the RBF program in Afghanistan in 2010.

## METHODS

Data were collected from health facilities in 2010, 2011 and 2012. We utilize the data from the matched-pair facilities over the three years, and use simple difference-in-difference models to compare utilization of health services, clinical quality of care, and perceived quality of care and patient satisfaction between the intervention and control facilities. We have employed descriptive analysis and studied the trends between the intervention and control facilities over the three years.

## LESSONS LEARNED

The trends in the utilization of services, in clinical quality of care, and in perceived quality of care show some improvement over the project implementation period. However, these trends do not provide sufficient evidence to see the difference between the intervention and control facilities.

## IMPLICATIONS

The study provides insight into the impact of RBF on perceived quality of care and patient satisfaction, and will be useful for informing decisions on the use of performance incentives to improve healthcare services in Afghanistan and other developing countries.

## Her/Stories: Using Arts- and Community-Based Approaches to Better Understand the Intimate Healthcare Needs of At-Risk Women in Northern British Columbia

*Virginia L. Russell, Josée G. Lavoie*  
University of Northern British Columbia

3C.5

## OBJECTIVES

The objectives of the study were twofold: 1) examine women's experiences with health services and to understand their personal her/stories and various health determinants that influenced and 2) to evaluate how awareness about cervical health topics changed as a result of arts-based and peer-driven interventions. This poster will place particular emphasis on the methodology and arts-based research results from the study.

## METHODS

Decolonizing, anti-racist, and feminist research methodologies, in addition to intersectionality theory and social determinants of health perspectives guided our research. Using community-based research principles, data sets included interviews, open-ended questionnaires, and creative expressions including journaling, photos, and canvases from 22 women over a six month period. Data sets were combined and a thematic approach used to generate themes, with particular attention to women's awareness about cervical health and barriers to use of or access to cervical screening.

## LESSONS LEARNED

Using an arts-based approach to raise awareness and explore women's stories proved to be advantageous and powerful. The connection between health and art was a very important finding of this research. Women reported feeling 'empowered' and 'more comfortable' talking about traditionally taboo or unsafe subjects through artistic expression.

## IMPLICATIONS

Creative approaches to understanding, listening, and teaching are an underutilized and under-theorized method with great potential. Our research demonstrated that there is great need for Aboriginal-specific cultural sensitivity when working with women who have experienced trauma, more female health care professionals, continuity and trust with healthcare providers, and pragmatic services such as child care and transportation to increase women's participation in intimate care.

## The Need for New Services: A Case Study for Sickle Cell Disease Services in Ghana

*Andrews Druye, Katherine Nelson, Brian Robinson*

Graduate School of Nursing, Midwifery & Health, Victoria University of Wellington

3C.6

## OBJECTIVES

Sickle cell disease (SCD) is the most common genetic disease worldwide. It is a major public health concern in Ghana. The concerns are how to minimise the incidence of this disease as well as provide comprehensive services for affected people. The aim of this presentation is to present the historical background of the SCD programme in Ghana to highlight issues and identify opportunities for service development.

## METHODS

An integrative review and indirect needs assessment was used to identify gaps in services in Ghana. Policy documents and peer reviewed publications were critically reviewed to examine what was known about services, cost and best practice. The review utilised a chronic conditions model to frame the identified gaps in services provision.

## LESSONS LEARNED

The implementation of the national SCD programme is limited. The services are not comprehensive, have a focus on screening, and treatment services primarily located in hospital and clinics. There is limited geographical access to services for the majority of people who have a diagnosis of SCD. Gaps exist in the number of clinics available, home-based treatment options, and self-help strategies that are known to improve the quality of life among persons with chronic diseases.

## IMPLICATIONS

There is an opportunity in Ghana to develop services that support the use of self-help strategies by patients and their families. Empowering patients and their families in disease management will improve the quality of life of people with SCD and will reduce the need for acute care visit to health facilities.

## 3D Chronic Care

10:30-12:00, Tuesday 3 December 2013, Featherston

Chair: Janet McDonald

## Implementing Care Coordination — Key Findings from the Australian Indigenous Chronic Disease Package

*Tracy McNeair, Gill Schierhout, Jodie Griffin, Barbara Beacham, Margaret Kelaher, Amal Chakraborty, Ross Bailie*

Menzies School of Health Research

3D.1

## OBJECTIVES

The Indigenous Chronic Disease Package aims to address the inequalities in health outcomes of Indigenous people in Australia. The Care Coordination and Supplementary Services (CCSS) program was an initiative implemented to assist patients with more complex care needs. This structured program was adapted across primary health care settings to improve the journey for eligible patients. This presentation will describe key factors influencing the success of program implementation.

## METHODS

Program implementation was evaluated during 2010–2012 as part of a broader place-based evaluation. Data were collected in five 6-monthly cycles during which twenty-one of the evaluation sites, across differing geographical locations, commenced the program. Data from semi-structured stakeholder interviews were analysed, and program documentation reviewed, to identify constraints and enablers.

## LESSONS LEARNED

All sites developed models with similar structural elements. However, service delivery approaches differed across settings. Making care coordination work efficiently and effectively in a system with varying levels of readiness is influenced by clarity around roles, guidelines and processes, the capacity of organisations to utilise population health principles, to engage and collaborate with key stakeholders and to manage change.

## IMPLICATIONS

The CCSS program requires a new way of working in primary health care.

Further work is needed by practitioners and organisations to address the barriers and to learn from the successes identified in this study. There are also ongoing implications at the policy level for adaptations that would provide more support for the new workforce to achieve the aims of the program.

## The Role of a Lay-Led Health Navigator Service Within a Rural Primary Care Setting

*Fiona Doolan-Noble<sup>1</sup>, Danielle Smith<sup>2</sup>, Robin Gauld<sup>1</sup>, Debra L. Waters<sup>1</sup>, Anthony Cooke<sup>3</sup>, Helen Reriti<sup>2</sup>*

<sup>1</sup>Centre for Health Systems, Department of Preventive and Social Medicine, University of Otago; <sup>2</sup>West Coast Primary Health Organisation; <sup>3</sup>PHOCUS on Health

3D.2

### OBJECTIVES

To assess if a lay-led health navigator service was reaching its target audience, namely those with complex chronic health and social care needs and providing effective support to general practice to care for this patient group.

### METHODS

Routinely collected health navigator data including demographic information, general practitioner, referrer, diagnosis and visits from a two year period were reviewed. In addition, health and social care professionals who used the service were surveyed and interviews undertaken with the navigator team members.

### LESSONS LEARNED

The key lesson learned was that a lay-led navigator service can provide valuable support to general practitioners and primary care nurses caring for patients with complex care needs, indicated by the complexity of the patients referred to the service. Other lessons included formally establishing a need for such a service; making the service easy for primary care staff to refer to; having a robust implementation plan; choosing the right people for the positions and ensuring that they maintained and nurtured the relationships they formed with health and social care staff.

### IMPLICATIONS

Lay-led navigation services can provide practical support to an overstretched primary care workforce, enabling it to better meet the needs of those living with complex chronic health and social care needs.

## A Tale of Two Tails — Time Use and Out of Pocket Costs for Chronically Ill Older Australians

*Ian McRae, Laurann Yen, Tanisha Jowsey*

*Australian Primary Health Care Research Institute, Australian National University*

3D.3

### OBJECTIVES

Chronic illness makes demands on people which increase with age and multi-morbidity. While median levels of out-of-pocket (OoP) costs and health related time demands may be manageable, for some patients these commitments are extreme. We explore the quantum of costs and time required at the tails of the respective distributions, and the groups of patients in those tails.

### METHODS

Two recent surveys of older Australians explore chronic illness: one exploring costs and one health related time use. People who spend more than 20% of their household income on their health, and those expending more than 90 minutes per day on average on health related activities (the top 10%) are identified, and logistic regressions used to identify the main correlates of being in these categories.

### LESSONS LEARNED

The highest OoP costs are faced by men, those aged 65–74, those in outer regional areas, and those with high levels of multi-morbidity measured by the number of conditions experienced. Highest time use was dominated by the level of multi-morbidity. Gender was not related to time use, and those aged 65–74 used the least time. Those with diabetes and COPD were significantly more likely to be among the highest time users.

### IMPLICATIONS

The risk of having extreme demands on both time use and OoP costs is higher for those with multiple chronic conditions, above other factors.

In addition, this group faces high illness and high treatment burden which should be taken into account when determining both optimal care pathways and financial support mechanisms.

## Medicare's Enhanced Primary Care/Chronic Disease Management Items Improve Primary Care Service Regularity, But for How Long?

*David A.J. Gibson<sup>1</sup>, Rachael Moorin<sup>1,2</sup>, David B. Preen<sup>1</sup>, Jon D. Emery<sup>3</sup>, C. D'Arcy J. Holman<sup>1</sup>*

<sup>1</sup>Centre for Health Services Research, School of Population Health, University of Western Australia; <sup>2</sup>Centre for Population Health Research, Faculty of Health Sciences, Curtin University; <sup>3</sup>School of Primary, Aboriginal and Rural Health Care, University of Western Australia

3D.4

### OBJECTIVES

The Enhanced Primary Care (EPC) and Chronic Disease Management (CDM) Medicare programs were designed to improve health outcomes, particularly in patients suffering chronic disease and of advanced age, by improving regularity of patient service utilisation in the primary care setting. Our study seeks to assess the duration of improved primary care regularity associated with EPC/CDM Medicare services.

### METHODS

A retrospective, longitudinal cohort study, utilising Medicare Benefits Schedule and hospital separation data in people aged 65 or more years in Western Australia, from 2001 to 2006. A polytomous/multinomial logistic regression model examined the relative likelihood of increased primary care service regularity for various time periods (6/12/18/24 months) after EPC/CDM exposure compared to the previous 6 months for each patient, adjusting for age, gender and recent chronic disease history.

### LESSONS LEARNED

An increased likelihood of higher regularity, in comparison to the 6 months prior to exposure, was only observed in the initial 6 months post EPC/CDM exposure. All observations beyond 6 months (12, 18 and 24 months) return regularity likelihoods statistically indistinguishable with the baseline period. The pattern of improved regularity lasting only 6 months is consistent across all years of study, with some variation in magnitude.

### IMPLICATIONS

The design of the EPC/CDM program is crucial if a persistent impact on service regularity is achieved. Currently, the health assessments and care plans are structured around an annual cycle, modifying this time frame or introducing intermediate items, could provide a more persistent regularity improvement.

## Enhancing Care for Complex Diabetes: What Patients, Providers and Managers Think of a New Integrated Model of Primary-Secondary Care

*Letitia Burridge<sup>1</sup>, Michele Foster<sup>1</sup>, Jenny Zhang<sup>1</sup>, Maria Donald<sup>1</sup>, Anthony W. Russell<sup>1,2</sup>, Claire L. Jackson<sup>1</sup>*

<sup>1</sup>Centre of Research Excellence in Quality & Safety in Integrated Primary-Secondary Care, School of Medicine, University of Queensland; <sup>2</sup>Princess Alexandra Hospital, Ipswich Road, Woolloongabba, Queensland

3D.5

### OBJECTIVES

To gain insights into the acceptability and feasibility of an integrated model of diabetes care to enhance the health system's capacity to deliver better quality diabetes care and to enhance patients' quality of life.

### METHODS

Qualitative interviews and focus groups were used to explore the expectations and experiences of patients, clinicians and managers regarding a new community-based model of integrated primary and secondary care provided by a multidisciplinary team incorporating a GP with special interests, an endocrinologist and diabetes nurse educator within a community-based complex diabetes service, as an alternative to the hospital outpatient clinic model. Patients were purposively sampled from the intervention arm of a randomised controlled trial to include older and younger, men and women and those with high and low HbA1c. The interviews and focus groups were audio-recorded to produce transcripts for thematic analysis, and will be repeated at 12 months.



## LESSONS LEARNED

Baseline interviews have been conducted with 30 patients. Two managers have been interviewed and clinician focus groups have been conducted at both sites. Most patients were positive about their initial care but few had grasped the concept of the integrated model as a potentially superior alternative to hospital outpatient clinics. The clinicians reported that the integrated model enhanced quality of care, and valued their roles within the multidisciplinary team. The managers provided practical insights into implementation issues and contextual factors impacting delivery and sustainability of the new model.

## IMPLICATIONS

Findings to date are promising, and have identified important issues to be addressed.

## The Influence of Patient Activation on Patient-Assessed Quality of Care in Type 2 Diabetes: A Longitudinal Analysis

*Eindra Aung, Maria Donald, Joseph Coll, Gail Williams, Suhail A.R. Doi  
School of Population Health, University of Queensland, Brisbane*

3D.6

## OBJECTIVES

To examine how patient activation and changes in activation over time influence patient-assessed quality of chronic illness care in type 2 diabetes within a population-based cohort in Queensland, Australia.

## METHODS

The study used data reported annually from 2008 (N=3,761) to 2010 (N=3,047), using self-report survey questionnaires. Principal measures were the 13-item Patient Activation Measure (PAM), with each participant assigned into one of four patient activation levels, and the 20-item Patient Assessment of Chronic Illness Care (PACIC) instrument. One-way ANOVA was used to determine the association between patient activation and patient-assessed quality of care in low and high patient activation groups at baseline (2008), and those groups were then followed up in 2009 and 2010 for change in activation levels.

## LESSONS LEARNED

Patient activation was positively associated with the median PACIC score within each survey year for both the baseline high activation group (activation levels 3 and 4) and the baseline low activation group (activation levels 1 and 2) ( $P < 0.001$ ). As the activation level decreased over time from higher, the median PACIC scores decreased. Similarly as the activation level increased over time from lower, the median PACIC scores increased.

## IMPLICATIONS

Patient activation influences quality of care assessments that utilize care experiences of patients with diabetes. Patient assessment of chronic illness care should therefore be stratified by patient activation levels for quality reporting or comparison within or across health care facilities and health care systems.

## 3E Priority Setting

10:30-12:00, Tuesday 3 December 2013, Rosanna

Chair: Jonathon Karnon

## The National Health Committee's Experiences to Date in Prioritisation and Reprioritisation

*Dylan Schwartz*

*New Zealand National Health Committee*

3E.1

## OBJECTIVES

Following reconfiguration in 2011, the National Health Committee's (NHC's) role is to improve health outcomes and increase clinical and cost effectiveness through the assessment of both new and existing health technologies and interventions.

## METHODS

The Committee initially selected a number of learning projects as it developed its internal capacity and approach to undertaking health technology assessments. This was followed by a call for sector referrals to identify assessments for the 2012/13 work programme.

Towards the end of 2012/13 the NHC adopted a strategic tiered framework to inform the development of their work programme to

maximise the ability to bend the health cost curve in the advice it provides to the Minister and wider sector. The Committee selected respiratory and cardiovascular diseases as the priority areas to apply this approach, based on a Programme Budget analysis of public hospital data.

Overview documents were produced in the areas of respiratory and cardiovascular disease and subjected to clinical engagement. This has informed the selection of specific diseases for more in-depth work towards selecting a series of assessments for 2013/14 across the spectrum of care. The results of these assessments will be brought together for implementation analysis to inform Committee recommendations to the Minister of Health. This is supported by working groups and engagement with clinical colleges to incorporate both options for new investment and reprioritisation.

## LESSONS LEARNED

This presentation will discuss the processes undertaken and lessons learned to date.

## IMPLICATIONS

Learnings are being incorporated into the processes for the next priority work areas.

## When Patients Disinvest from Healthcare Technologies: Is it More Than What isn't Swallowed?

*Tracey-Lea Laba<sup>1,2</sup>, Jo-anne Brien<sup>2</sup>, Stephen Jan<sup>1</sup>*

*<sup>1</sup>George Institute for Global Health; <sup>2</sup>Faculty of Pharmacy, University of Sydney*

3E.2

## OBJECTIVES

With constrained healthcare budgets globally, the current impetus is towards management of existing healthcare technologies, with disinvestment from technologies no longer deemed effective or cost-effective. Arguably, the effectiveness and cost-effectiveness of existing healthcare technologies relies in part on appropriate patient use. For prescribed medications, deliberate decision's to not use medications occurs, yet is not well understood. This study aimed to characterise the decisions that drive intentional medication non-adherence within the Australian community setting.

## METHODS

In-depth semi-structured interviews were conducted with 21 patients (12 rural, 9 metropolitan; New South Wales) prescribed chronic medications. A thematic framework analysis method was used to analyse emerging themes, informed by the theory of planned behaviour.

## LESSONS LEARNED

Although there was a strong belief expressed in the importance of following prescribers' recommendations, many patients indicated a willingness to intentionally not adhere with prescriber advice. Often intentional non-adherence was accompanied by patient guilt about not adhering to prescribing advice. Thought treatment-related factors, particularly side effects, were fundamental to decisions, attitudes about non-adherent behaviour, medications, and prescribers were important. Social context, such as the increased commercialisation of service delivery, also influenced medication-taking decisions.

## IMPLICATIONS

Within the Australian healthcare setting, patients intentionally disinvest from prescribed medications. Such decisions appear to be partially of social context, rather than purely a patient-centred or treatment-related problem. Nonetheless, understanding patient preferences about medications may be an important component of disinvestment decisions and a means to achieving the anticipated cost-effectiveness and effectiveness of existing healthcare technologies.

## The Economic Impact of the Shorter Stays in Emergency Departments Target in New Zealand

*Peter Jones<sup>1,2</sup>, Elizaveta Sopina<sup>1</sup>, Toni Ashton<sup>1</sup>*

*<sup>1</sup>University of Auckland; <sup>2</sup>Adult Emergency Department, Auckland Hospital, ADHB*

3E.3

## OBJECTIVES

In 2009 the NZ Ministry of Health introduced a national target to ensure that "95% of patients will be admitted, discharged or transferred from an ED within six hours". Stream 1 of the Shorter Stays in

Emergency Department National Research Project investigated the economic impact of initiatives that District Health Boards implemented in response to this performance target.

#### **METHODS**

A face to face survey identifying initiatives implemented in response to the target was conducted with Clinical Directors, Service or Nurse Managers in 26 hospitals (20 DHBs). Interviews were also conducted over the phone with DHB Planning and Funding managers to identify any information missed in the first survey round. Initiatives were classified into three groups: the ED, the Hospital and the Community. All quantifiable resources identified as being implemented to help the target and planned after May 2009 were assigned a dollar value.

#### **LESSONS LEARNED**

Preliminary results suggest that, of the 26 sites, 17 spent resource funds in order to meet the target. This additional expenditure ranged between NZ\$ 40,000 and 6.5 million. The majority of expenditure arose from additional staff being hired. The majority of the costs were also incurred in emergency departments, with some in hospital costs and no community costs identified.

#### **IMPLICATIONS**

The link between expenditure and target outcomes and impacts is unclear. However, given no additional funding for the target was provided, the opportunity costs of the additional expenditure identified in this study are of high interest and may have significant quality and efficiency implications.

### **Health Outcomes of Medicine Brand Switches — The Case for Lamotrigine**

*Charon Lessing, Toni Ashton, Peter Davis*

*University of Auckland, School of Population Health*

#### **3E.4**

#### **OBJECTIVES**

The aim of this paper is to report on the impact of pricing and subsidy policies on medicine switching behaviour and consequent healthcare utilisation in New Zealand, using lamotrigine as a case in point.

#### **METHODS**

On the 1<sup>st</sup> February 2007 New Zealand's Pharmaceutical Management Agency (PHARMAC) referenced priced the originator brand of lamotrigine against a generic equivalent product as a cost-saving measure. Switching between brands by patients ensued.

Data from national health collections and prescription records for patients using lamotrigine was analysed for the year preceding the policy implementation date and for up to two years after that date. Comparisons were drawn between patients who switched brands and those who remained on the originator brand, and with a group of patients not affected by the policy change at all.

#### **LESSONS LEARNED**

Analysis of the data is currently being completed.

Health-related outcome measures include changes in utilisation of healthcare at emergency and outpatient departments, hospitalisation and use of specialist services by the different groups, and mortality rates.

Medication utilisation outcomes include switch behaviour, medication discontinuation, and overall prescription usage.

#### **IMPLICATIONS**

Traditionally, medicines used to manage epilepsy have been considered non-interchangeable in that differences in bioavailability between preparations might result in loss of seizure control with potentially profound consequences. However, this stance is now being challenged, and if the case can be made for no significant negative health consequences of switching between brands, potential economic gains can be made through reference pricing similar products against one another.

### **Towards More Relevant Healthcare Services for New Zealand Baby Boomers**

*Mary FitzPatrick, Janet Davey, Madeleine Beeson*

*Waikato Management School, University of Waikato*

#### **3E.5**

#### **OBJECTIVES**

Healthcare is characterised by rising costs along with mounting public

expectations of healthcare services and providers. Ageing Baby Boomers add more challenges to healthcare systems already under pressure. In order to enhance health system performance for this influential cohort, specific marketing research is required on Baby Boomers' healthcare consumer behaviour. This exploratory research examined NZ Baby Boomers' needs, wants and expectations in relation to healthcare services.

#### **METHODS**

This research involved in-depth interviews of eight NZ Baby Boomers. The interviews followed a semi-structured guide and lasted approximately 60 minutes. The data were analysed using a thematic approach.

#### **LESSONS LEARNED**

The research found that the NZ Baby Boomer participants took a large degree of self-responsibility for their health and wellbeing, making changes to their lifestyles according to their age and health issues. Participants also were proactive in seeking regular medical advice as another form of health maintenance. Participants' expectations for efficiency, convenience, and choice in healthcare provision were not fully met by the existing healthcare system; they attributed this to national funding and staffing issues.

#### **IMPLICATIONS**

At a time when healthcare policy-makers are under considerable pressure to develop appropriate and affordable patient-centred initiatives, the views and experiences of Baby Boomer patient-consumers are crucially important, especially those offering insights into the 'stress points' in healthcare system performance. Understanding the needs of Baby Boomer patients is critical for translating consumer issues into opportunities for designing relevant improvements to the quality of NZ healthcare services.

### **Price Differences Between Medicines Procured by South Australian Public Hospitals and the Pharmaceutical Benefits Scheme**

*Loc Thai, Agnes Vitry*

*Quality Use of Medicines and Pharmacy Research Centre, Sansom Institute, University of South Australia*

#### **3E.6**

#### **OBJECTIVES**

The first objective was to determine what price differences exist between medicines procured in South Australian public hospitals and the ex-manufacturer prices of medicines on the Pharmaceutical Benefits Scheme (PBS). The second objective was to determine whether the mandatory price reductions and price disclosure pricing policies on the PBS had an impact on price differences between South Australian public hospitals and the PBS.

#### **METHODS**

42 medicines were selected from the six ATC classification groups with the greatest PBS prescription volume in the financial year to June 2010. Monthly data on medicines prices and medicine utilisation were obtained from January 2011 to December 2012 from SA Health and archived versions of previous PBS schedules. Average weighted prices by volume (\$AUD per Defined Daily Dose) for all six ATC classification groups and across all 42 medicines were calculated and comparisons were conducted.

#### **LESSONS LEARNED**

Prices for medicines procured by South Australian public hospitals were on average 45.9 per cent cheaper than the PBS in 2011, and 55.7 per cent cheaper than PBS in 2012. From 2011 to 2012, prices decreased by an average of 16.7 per cent on the PBS compared to 31.6 per cent decrease in South Australian public hospitals.

#### **IMPLICATIONS**

Medicines procured via competitive tendering processes in South Australian public hospitals are cheaper than the prices on the PBS. The current pricing strategies employed on the PBS do not decrease medicines prices at the same level as competitive pricing markets like those in South Australian public hospitals.

## 3F Indigenous Health Services

10:30-12:00, Tuesday 3 December 2013, Wellington

Chair: Ausaga Faasalele Tanuvasa

### The Importance of a Welcoming Space for Aboriginal and Torres Strait Islander People Seeking Health Care

Alex Brown<sup>1</sup>, Carol Davy<sup>1</sup>, Bernadette Rickards<sup>2</sup>, Samantha Togni<sup>2</sup>, David Peiris<sup>3</sup>, Hueiming Liu<sup>3</sup>, John Brady<sup>4</sup>, Joanne DeVries<sup>5</sup>, Barry Fewquandie<sup>5</sup>, Ricky Mentha<sup>2</sup>, Pamela Simon<sup>6</sup>, Suzanne Ingram<sup>3</sup>, Deborah Askew<sup>4</sup>, Alan Cass<sup>7</sup>

<sup>1</sup>South Australian Health & Medical Research Institute; <sup>2</sup>Baker IDI Heart & Diabetes Institute; <sup>3</sup>George Institute for Global Health; <sup>4</sup>Inala Indigenous Health Service; <sup>5</sup>Wuchopperen Health Service; <sup>6</sup>Tharawal Aboriginal Corporation Aboriginal Medical Service; <sup>7</sup>Menzies School of Health Research

3F.1

#### OBJECTIVES

A primary aim of the Kanyini Vascular Collaboration Qualitative Study was to identify the factors that would encourage, as well those that may prevent or inhibit Aboriginal and Torres Strait Islanders from accessing health care services.

#### METHODS

This large qualitative study utilised semi-structured interviews to collect data from 223 Aboriginal and Torres Strait Islander participants with and without chronic disease, their health care providers and a number of health service management and administrative staff. Interview data from the five primary sites in Queensland, New South Wales and Central Australia were thematically analysed and findings compared within and across sites.

#### LESSONS LEARNED

References to the quality of medical services and implementation of evidence-based practices were noticeably absent from the discussions relating to why and when Aboriginal and Torres Strait Islander people sought care. Instead, welcoming spaces where community members felt comfortable, accepted and able to build strong and trusting relationships with a health provider encouraged people to engage with their health service. Barriers included experiences of racism and discrimination.

#### IMPLICATIONS

Consideration should be given to not just the practical aspects of providing medical services but should also consider creating spaces where people felt accepted, where strong and trusting relationships could be built and where there were Aboriginal and Torres Strait Islander staff present. Space in this sense goes beyond the physical environment and the range of medical services available, to also include relational (the connection between the patient and provider) and emotional (the sense of being cared for) elements.

### Developing an Aboriginal and Torres Strait Islander Model of Chronic Disease Care in Primary Health Care Settings

Carol Davy<sup>1</sup>, Bernadette Rickards<sup>2</sup>, Samantha Togni<sup>2</sup>, Josée G. Lavoie<sup>3</sup>, Maria Tchan<sup>4</sup>, Odette Gibson<sup>1</sup>, Hueiming Liu<sup>4</sup>, Alan Cass<sup>5</sup>, Alex Brown<sup>1,2</sup>

<sup>1</sup>South Australian Health and Medical Research Institute for Global Health; <sup>2</sup>Baker IDI Heart & Diabetes Institute; <sup>3</sup>University of Northern British Columbia; <sup>4</sup>George Institute for Global Health; <sup>5</sup>Menzies School of Health Research

3F.2

#### OBJECTIVES

Emerging work from the Kanyini Vascular Collaboration (KVC) raises important questions as to whether existing chronic care models (CCMs) are either acceptable to Aboriginal and Torres Strait Islander peoples or effective in managing their care. This new study aims to develop a CCM which improves the quality of care, quality of life and health outcomes for Aboriginal and Torres Strait Islander peoples with chronic disease.

#### METHODS

Guided by a Reference Group consisting of Aboriginal and Torres Strait Islanders, as well as primary health-care providers, the study uses a three stage methodology incorporating 1) a synthesis of findings from other KVC studies and relevant international literature 2) identification of

the elements that these studies have found to be important for the care of Aboriginal and Torres Strait Islander people with chronic disease, and 3) the development of a new model based on the elements identified in stage 2, which is flexible enough to adapt to meet the individual needs of each community.

#### LESSONS LEARNED

The study is significantly strengthened by the substantial body of research that the KVC has already completed as well as the expertise of community members who utilise, and practitioners who provide health-care.

#### IMPLICATIONS

Outcomes from this study will lead directly into the next phases of development. Continued consultation with the Reference Group on the specific resources required for implementation will assist in ensuring that this novel CCM contributes to improving the wellbeing of Aboriginal and Torres Strait Islander people living with chronic disease.

### Exploring the Factors Influencing Whether Aboriginal and Torres Strait Islander Peoples Remain Engaged with Chronic Disease Care Over Time: Findings from the Kanyini Qualitative Study

Alex Brown<sup>1</sup>, Bernadette Rickards<sup>2</sup>, Carol Davy<sup>1</sup>, Samantha Togni<sup>2</sup>, Hueiming Liu<sup>3</sup>, David Peiris<sup>3</sup>, John Brady<sup>4</sup>, Joanne DeVries<sup>5</sup>, Barry Fewquandie<sup>5</sup>, Ricky Mentha<sup>2</sup>, Pamela Simon<sup>6</sup>, Suzanne Ingram<sup>3</sup>, Deborah Askew<sup>4</sup>, Alan Cass<sup>7</sup>

<sup>1</sup>South Australian Health & Medical Research Institute; <sup>2</sup>Baker IDI Heart & Diabetes Institute; <sup>3</sup>George Institute for Global Health; <sup>4</sup>Inala Indigenous Health Service; <sup>5</sup>Wuchopperen Health Service; <sup>6</sup>Tharawal Aboriginal Corporation Aboriginal Medical Service; <sup>7</sup>Menzies School of Health Research

3F.3

#### OBJECTIVES

Chronic disease (CD) is by definition a long-term and perhaps permanent event in a person's life. Improving CD outcomes will involve health services engaging patients in a sustained manner. The Kanyini Qualitative Study aimed to identify the factors which influence whether Aboriginal and Torres Strait Islander peoples remain engaged with CD care over time.

#### METHODS

Semi structured interviews were conducted with 223 Aboriginal and Torres Strait Islander participants with and without chronic disease, their health care providers and a number of health service management and administrative staff. Data from five primary sites in Queensland, New South Wales and Central Australia were thematically analysed and findings were compared within and across sites.

#### LESSONS LEARNED

Many Aboriginal and Torres Strait Islander participants experienced acute events as 'wake-up calls', a period where their families and health services played critical roles in motivating engagement. Nonetheless, we identified a series of key 'tipping points' along the care continuum which resulted in poor or dis-engagement. Specifically, perceived indifference by health services to patients' situations and needs in combination with their lack of autonomy and control within care, resulted in some patients 'pushing back' against 'the system' and/or navigating care on their own terms.

#### IMPLICATIONS

In addition to providing a better appreciation of enablers and barriers to continued engagement with CD care, this study provides a deeper understanding of the opportunities that are available to practitioners and health services to improve care experiences for Aboriginal and Torres Strait Islander patients and their families.

### Healthy for Life, Findings from the Aboriginal and Torres Strait Islander Report Card and Investing in Healthy Futures for Generational Change, the National Aboriginal Community Controlled Health Organisation 10 Point Plan

Lisa Briggs, Justin Mohamed

National Aboriginal Community Controlled Health Organisation

3F.4

## OBJECTIVES

The National Aboriginal Community Controlled Health Organisation (NACCHO) partnered with the Australian Institute of Health and Welfare (AIHW) to produce the a landmark report that identified the specific gains made by the Aboriginal Community Controlled Health Sector under the Office of Aboriginal and Torres Strait Islander Health program 'Healthy for Life'. The report collects and reports on the health outcome data that goes beyond the usual service activity reporting. The program objectives are to improve services on child and maternal health care; improve men's health; improve prevention, early detection; management of chronic disease; and increase the capacity of the Aboriginal and Torres Strait Islander health workforce.

## METHODS

The Healthy for Life (HfL) program is available to established primary health-care providers in Aboriginal Community Controlled Health Services (ACCHS), state and territory health services and Divisions of General Practice. This national report based on HfL data was published by AIHW early this year. This report card was prepared by AIHW for a subset of ACCHS. Additionally, information is presented from the Online Service Reporting (OSR) data collection on staffing, client numbers, governance, accreditation status, and use of technology to provide more context about ACCHS.

## LESSONS LEARNED

NACCHO established a strong position based on the outcomes of this report by which to further its advocacy efforts for the sector. The data supports the sectors long held beliefs that Aboriginal Community Controlled Health Services supports improved overall health outcomes for their clients when coupled with a focus to improve the emotional, social and cultural wellbeing of the client and community.

## IMPLICATIONS

NACCHO and the ACCHOS are better equipped to measure; report and advocate for their sector because of the availability of relevant, detailed and supportive reporting on the significant gains being made by the sector in achieve health equality for Aboriginal Australians.

## Explaining Variation in Delivery of Types of Care for Patients with Diabetes: A Multi-Level Study in the Australian Indigenous Primary Care Setting

*Gill Schierhout, Veronica Mathews, Ross Baillie*

*Centre for Primary Health Care Systems, Menzies School of Health Research, Brisbane*

3F.5

## OBJECTIVES

Wide variation in adherence to guideline-scheduled care has been previously documented. To identify where system-wide improvements may offer solutions to care quality, we analyse variation in delivery of types of care processes in a diversity of Aboriginal and Torres Strait Islander primary care health centres. A secondary aim is to describe changes achieved during participation in a continuous quality improvement (CQI) project.

## METHODS

We analysed data from 132 health centres participating in a systematic multi-level CQI intervention implemented through the ABCD program of research. Information on adherence to guideline-scheduled care was extracted from 10674 clinical audits of records of patients with Type 2 diabetes conducted during 2005–2013. Multi-level statistical models were used to analyse the effects of health centre participation in CQI, audit year, and other explanatory factors on delivery of: laboratory tests, generalist and specialist physical checks, and brief interventions for tobacco, alcohol and nutrition.

## LESSONS LEARNED

Delivery of care was relatively high for laboratory tests, and low for specialist-delivered physical checks. Health centre participation in CQI was independently associated with higher delivery of care for four of the five types of care analysed. There was disproportionate lower delivery for patient groups known to be lower health service users (men, younger people, those without co-morbidities).

## IMPLICATIONS

CQI interventions at health centre level have potential to result in improvements in care processes, but require wider system support. Strengthening systems for recall, addressing access barriers for under-served groups, and research to identify barriers to delivery of specialist-delivered care are needed.

## HOME, But Not Alone! Home-Based, Multidisciplinary Case Management for Aboriginal and Torres Strait Islander People with Complex Chronic Disease

*Deborah Askew<sup>1</sup>, Samantha Togni<sup>2</sup>, Philip Schluter<sup>3</sup>, Alex Brown<sup>2,4</sup>, Lynne Rogers<sup>1</sup>, Roslyn Wharton-Boland<sup>1</sup>, Nichola Potter<sup>1</sup>, Noel Hayman<sup>1</sup>, Alan Cass<sup>5</sup>*

*<sup>1</sup>Inala Indigenous Health Service; <sup>2</sup>Baker IDI Heart & Diabetes Institute; <sup>3</sup>University of Canterbury; <sup>4</sup>South Australian Health and Medical Research Institute; <sup>5</sup>Menzies School of Health Research*

3F.6

## OBJECTIVES

This exploratory study investigated the feasibility, acceptability and appropriateness of a primary health care led, home-based, case management model of patient centred multidisciplinary care to Indigenous people with complex chronic disease, their families, and their primary health care provider.

## METHODS

41 Indigenous Australians with complex chronic diseases who attended the Inala Indigenous Health Service were recruited. Participant's goals, and health and social care needs were identified at baseline. Multidisciplinary case conferences identified strategies to maximise participants' health, and facilitate goal achievement. Subsequent assessments at three and six months reviewed health status and progress towards goal achievement. We assessed participant uptake and withdrawal, time involved in delivering care, health professionals' attitudes to the model of care, participant goal attainment, and changes in participants' health status and health service utilisation.

## LESSONS LEARNED

The model of care facilitated a team approach to caring for Indigenous people with chronic disease. Participants felt empowered to be part of their health care team, and their health status improved with mean HbA1c decreasing from 8.0% to 7.5% over 6 months. Primary health care personnel appreciated the patient-centred case conferences, and the in-depth follow-up of patients enabled by this model of care. 10 participants withdrew during the 6 months, but there was no difference in withdrawal rates based on gender, age, or health status.

## IMPLICATIONS

This patient centred model of care was feasible, acceptable and appropriate for Aboriginal and Torres Strait Islander people with chronic diseases, their family members and health care providers.

## 4A Quality and Safety

13:15-14:45, Tuesday 3 December 2013, Lambton 1

Chair: Gillian Bohm

## Healthcare Professional Perspectives on Quality and Safety in New Zealand Public Hospitals: Findings from a National Survey

*Robin Gauld, Simon Horsburgh*

*Centre for Health Systems, Department of Preventive and Social Medicine, Dunedin School of Medicine, University of Otago*

4A.1

## OBJECTIVES

Few studies have measured health professional perceptions of quality and safety across an entire system of public hospitals. Therefore, three quality and safety questions were included in a national New Zealand survey of clinical governance.

## METHODS

Three previously-used questions were adapted. A total of 41,040 registered health professionals employed in District Health Boards (DHBs) were invited to participate in an online survey. Analyses were performed using the R statistical environment. Proportional odds mixed models were used to quantify associations between demographic variables and responses on five-point scales. Relationships between other questions in the survey and the three quality and safety questions were quantified with the Pearson correlation coefficient.

## LESSONS LEARNED

10,303 surveys were completed. 57% of respondents (95% CI: 56–58%) agreed health professionals worked as a team; 70% respondents (95%

CI: 69–70%) agreed health professionals involved patients and families in efforts to improve patient care; and 69% (95% CI: 68–70%) agreed it was easy to speak up in their clinical area. Correlations showed links between perceptions of stronger clinical leadership and performances on the three questions, as well as with other survey items. The proportional mixed model also revealed response differences by respondent characteristics.

#### IMPLICATIONS

The findings suggest positive commitment to quality and safety amongst New Zealand health professionals, albeit with variations by district, profession, gender and age, but also scope for improvement. The study also contributes to the literature indicating that clinical leadership is an important component of quality improvement.

### Improving Quality and Safety Through an Evidenced-Based Development Program for Clinical Leaders in Victoria, Australia

*Sandra G. Leggat<sup>1</sup>, Cathy Balding<sup>1</sup>, Anne Smyth<sup>2</sup>*

<sup>1</sup>La Trobe University, School of Public Health and Human Biosciences, Bundoora, Victoria 3086; <sup>2</sup>Organisational Consulting

4A.2

#### OBJECTIVES

The Australasian College of Health Service Management (ACHSM), La Trobe University, Qualityworks and the Australian Centre for Leadership Development collaborated to develop, provide and evaluate an innovative education project funded through by the Victorian Government Department of Health. The aim of the project was to increase the skills of clinical leaders in quality and safety, including a range of health professionals across metropolitan, rural and regional acute, community, long term care and primary care settings.

#### METHODS

A year-long Clinical Leadership program was developed using the evidence from a detailed literature review, as well as advice from an expert steering committee and interviews and focus groups of relevant organisational stakeholders. A pilot program with 24 health professional participants was provided in 2011/12. A comprehensive process and summative evaluation of the pilot program was completed and provision of the 2013 program with 36 participants has started, with relatively few modifications in the program content and delivery.

#### LESSONS LEARNED

The pilot program won an international award for Innovation in Health Care Education. The participating clinicians developed a range of leadership skills that enabled them to have a greater impact on quality and safety within their organisations. The most effective program content focused on focused personal and organisational development, which was delivered through an innovative multi-faceted education approach.

#### IMPLICATIONS

Evidence-based development of clinical leaders can impact quality and safety in care delivery.

### Promoting Stakeholder Engagement in the Development of Clinical Policies and Guidelines in a Multi-Site Tertiary Health Care Facility

*Aurora Bermudez Ortega, Kathryn Kynoch, Christopher Torpy-Ladd*

*Mater Health Services, Nursing Research Centre, Clinical Policy*

4A.3

#### OBJECTIVES

This paper will describe the processes employed by Clinical Policy Officers at Mater Health Services (MHS) to promote input from content and context experts in the development of organisational, evidence based clinical policies and guidelines.

#### METHODS

MHS operates seven co-located, Private and Public Hospitals and provides services up to 500, 000 patients annually. MHS develop evidence based clinical policies and guidelines using a multidisciplinary, consultative approach. This approach is co-ordinated by Clinical Policy Officers and relies on the successful engagement of content and context experts within and outside the organisation.

Engagement of stakeholders in the consultative process has involved a number of key strategies. These strategies include the development and support of Lead Author and Policy Buddy roles which encourage novice clinicians to participate in clinical policy development; the

establishment of multidisciplinary, clinical policy governance committees; the administration of an electronic consultation platform and the utilisation of transparent communication practices throughout the development cycle.

#### LESSONS LEARNED

Consultation through effective engagement of stakeholders takes time and in a large multi-site centre with multiple specialties, disagreement and conflict do emerge. Different service funding arrangements, diverse understandings of the processes involved in clinical policy and guideline development and busy clinical schedules, all contribute to the challenges in facilitating stakeholder engagement.

#### IMPLICATIONS

Sustainable engagement requires attention to process, a robust visible structure and strong leadership from senior hospital administrators. The strategies employed have been observed to increase understanding, participation and strength in the development of evidence based, multidisciplinary clinical policies and guidelines.

### District Health Boards' Public Reporting of Serious and Sentinel Events in New Zealand: Is it Open, Understandable and Meaningful?

*Brian Robinson*

*Graduate School of Nursing, Midwifery & Health, Victoria University of Wellington*

4A.4

#### OBJECTIVES

The objective is to identify how District Health Boards (DHBs) publicly share and convey serious and sentinel event (SSE) information. DHBs are required to report adverse events to the Health Quality & Safety Commission New Zealand (HQSC) within 15 working days of occurring and provide the summary and recommendations within 70 working days. From 2007 through to 2011 the HQSC publicly reported all DHB SSEs. From 2012, the HQSC published summary data only. Public reporting of SSEs occurring from July 2011 to June 2012 became the responsibility of individual DHBs to be published in November 2012.

#### METHODS

Twenty DHB websites were accessed via the Ministry of Health website and searched using the phrase "serious and sentinel events". Documents, data and information obtained were reviewed and categorised for availability, summary and recommendations and use of clear language.

#### LESSONS LEARNED

From the 20 New Zealand DHB websites, 19 SSE reports for 2011–2012 were obtained. There was variability regarding presentation of information. Three DHBs reported a summary of SSEs as plain language narratives. Sixteen DHBs provided reports as variations of the HQSC data spreadsheet format. Of these, eleven DHBs predominantly reported with clinical language and medical jargon and six DHBs predominantly used plain language. In several instances, recommendations were still pending indicating the public reports have not been updated since November 2012.

#### IMPLICATIONS

Gaps and opportunities exist for many DHBs to publicly share information and communicate in clear language, for all to understand, regarding the quality and safety of care provided.

### An Evaluation of the 'Preventing Falls and Harm from Falls in Older People Best Practice Guidelines for Australian Hospitals'

*Anna Barker<sup>1</sup>, Caroline Brand<sup>1</sup>, Sandy Brauer<sup>2</sup>, Renata Morello<sup>1</sup>, Georgie Rose<sup>1</sup>*

<sup>1</sup>Monash University; <sup>2</sup>University of Queensland

4A.5

#### OBJECTIVES

This evaluation aims to undertake a comprehensive review of the 'Preventing Falls and Harm from Falls in Older People: Best Practice Guidelines for Australian Hospitals' and to develop key recommendations for the planned review in 2013–2014.

#### METHODS

A panel of 18 clinicians, researchers and policy leaders was formed to assess the overall quality of the guidelines and implementability of key

recommendations using an internationally recognised standardized tool (AGREE II). Data were prospectively collected as part of the 6-PACK falls prevention project [1] between September 2011 – June 2012 from seven hospitals in Australia, and included 12,778 patients and 546 staff. Data sources included document reviews, audits of patient medical records, structured observations, and interviews (n=24), focus groups (n=12) and surveys (n=428) of senior and clinician hospital staff.

#### LESSONS LEARNED

The AGREE II assessment found the guidelines were of moderate overall quality. Reasons for the assessors scores included: omission of evidence relating to patient preferences and key professional groups from the guideline development; lack of focus on general falls prevention information in the hospital setting; and lack of clarity around the executability (exactly what to do), decidability (when to do something) and flexibility (interpretation/alternatives for execution) of key recommendations. Key recommendations were found to have varying levels of acceptability, feasibility and uptake throughout all hospitals. 58% of nurses believed guidelines were a useful resource; however the majority of nurses were not familiar with the guideline document or key recommendations.

#### IMPLICATIONS

The information contained within this evaluation can be used to inform future guidelines and knowledge translation activities.

#### REFERENCES

- [1] Barker A, Brand C, Haines T, Hill K, Brauer S, Jolley D, et al. The 6-PACK programme to decrease fall-related injuries in acute hospitals: protocol for a cluster randomised controlled trial. *Injury Prevention* 2011;17(4):e5-e5

### Identifying Systems-Based Factors That Affect the Quality of Care for Acute Coronary Syndrome

Jodi Gray<sup>1</sup>, Glenis Crane<sup>1</sup>, Derek Chew<sup>2</sup>, Stephen Quinn<sup>2</sup>, David Brieger<sup>3</sup>, Jonathan Karnon<sup>1</sup>

<sup>1</sup>University of Adelaide; <sup>2</sup>Flinders University; <sup>3</sup>University of Sydney

4A.6

#### OBJECTIVES

There is substantial evidence to describe appropriate treatment strategies for patients experiencing acute coronary syndrome (ACS). While this evidence has been synthesised into clinical practice guidelines, the quality of care received by ACS patients remains limited by guideline uptake and application in clinical settings. This project intends to determine which systems-based quality improvement and clinical workforce strategies are able to most cost-effectively enhance the quality of care for ACS patients. Phase one of the project aimed to identify and categorise key systems-based factors and workforce scenarios.

#### METHODS

The SNAPSHOT ACS was a two week audit of ACS patients admitted to acute care hospitals in Australia and New Zealand during May 2012. It collected a wide range of patient-level demographic and clinical data. It was accompanied by a hospital-level survey of services, workforce and quality improvement activities. Multiple regression was used to identify key implemented services, workforce scenarios and quality improvement initiatives.

#### LESSONS LEARNED

We were able to identify key systems-based factors and workforce scenarios that impact the current care of ACS patients. When examining factors at the systems-level, it was necessary to consider both the presenting hospital and the main treating hospital, and to group patients by clinically-defined working diagnoses (ST-elevation myocardial infarction (STEMI), non-STEMI and unstable angina).

#### IMPLICATIONS

Future work will estimate the cost-effectiveness of the identified key systems-based factors and workforce scenarios. Dissemination of findings to stakeholders will assist in targeting interventions towards factors that will have the greatest impact for cost.

## 4B Economic Analyses

13:15-14:45, Tuesday 3 December 2013, Lambton 2

Chair: Rosalie Viney

### Uptake of Government Incentive Schemes and Grants in Australian Primary Care

Milica Kecmanovic<sup>1,2</sup>, Jane Hall<sup>1,2</sup>

<sup>1</sup>Centre for Health Economics Research & Evaluation, University of Technology, Sydney; <sup>2</sup>on behalf of the Centre for Research Excellence in the Finance and Economics of Primary Health Care (REFinE-PHC) Team

4B.1

#### OBJECTIVES

The aim of this study is to investigate the use of government incentives schemes and grants in Australian primary care using MABEL data and regression methods.

#### METHODS

This study uses unit record data from two waves of the MABEL Survey (2008 and 2011) and the Probit model to estimate which general practitioners (GPs) are more likely to be using government incentives schemes and grants. The MABEL Survey is an annual longitudinal panel survey of medical practitioners in Australia.

#### LESSONS LEARNED

In 2008, around 48% of GPs were using government incentive schemes and grants, while in 2011 this had fallen to 44%. The panel aspect of the data allows us to investigate within-GP transitions: A number of GPs had started using incentive schemes between 2008 and 2011, but a higher number had ceased using them. Regression methods reveal that GPs working in large practices are more likely to use government incentives, and the number of administrative staff in practices is increasingly important in explaining the probability of incentive use. The location of the GP is the most important factor in explaining incentive use, with GPs in outer regional areas being around 37% more likely to use grants than those in cities.

#### IMPLICATIONS

Doctors respond to incentives, but there is churning among them. Doctors in rural areas have responded to the large number of incentives available to them. However, the increasing importance of the number of administrative staff in practices suggests a growing administrative burden in claiming grants.

### Cost Effectiveness of an Inpatient Smoking Cessation Intervention for Patients with Tobacco Related Illnesses (Stop Trial): A Multi-Centre Randomised Controlled Study

Kim Daziel<sup>1</sup>, Malcolm Brinn<sup>2</sup>, Kristin Carson<sup>2</sup>, Nadina Labiszewski<sup>2</sup>, Adrian Esterman<sup>3</sup>, Brian Smith<sup>2</sup>

<sup>1</sup>Centre for Health Policy, Programs and Economics, University of Melbourne; <sup>2</sup>Clinical Practice Unit, Basil Hetzel Institute for Translational Health Research, South Australia; <sup>3</sup>Health Economics and Social Policy Group, School of Nursing and Midwifery, University of South Australia

4B.2

#### OBJECTIVES

To determine the cost effectiveness of varenicline tartrate plus counselling (VT+C) compared to counselling alone (CA) for sustained smoking abstinence for inpatients.

#### METHODS

Adult patients (n=392, 20–75 years) admitted with smoking related illnesses were randomised to a 12 week course of either VT+C or CA, from three major hospitals in South Australia. A time dependent Markov model containing smoking, non-smoking and death states was applied to this cohort. Subjects progressed through health states monthly for 12 months using trial data. 12 months of follow-up using hospital DRG cost data was applied to each group and health state respectively. Health-related quality of life was also measured for smokers and non-smokers and applied to the health states.

#### LESSONS LEARNED

VT+C costs an additional \$334.82 per person compared to CA. At the end of 12 months 91 (46%) people who had received VT+C were classified as non-smokers compared to 73 (37%) in the CA group. Quality of life scores (utility) was on average 0.74 for smokers and 0.81

for non-smokers. Total average hospital costs per person in the 12 months following enrolment in the trial were \$9758 for the VT+C group and \$12,753 for the CA group and \$22,299 per person who died. When considering quality adjusted life years gained and hospital costs VT+C dominates meaning that it is a cheaper and more effective intervention, or in other words it is cost saving.

#### IMPLICATIONS

Varenicline plus counselling (compared to counselling alone) even after a short period of time produces reductions in hospital utilisation and improvement in quality of life and is cost saving. Longer term cost savings will be substantial and an inpatient initiated smoking cessation service should be adopted as part of standard care in the hospital setting.

### Economic Evaluation of a School Intervention to Reduce the Risk of Rheumatic Fever

Richard J. Milne<sup>1</sup>, Diana Lennon<sup>1</sup>, Joanna Stewart<sup>1</sup>, Paul Scuffham<sup>2</sup>, Steve Vander Hoorn<sup>1</sup>, Jason Cooke<sup>3</sup>

<sup>1</sup>University of Auckland; <sup>2</sup>Griffith University, Brisbane; <sup>3</sup>Starship Children's Hospital, Auckland

4B.3

#### OBJECTIVES

To evaluate the cost effectiveness of 'sore throat clinics' (STCs) for prevention of acute rheumatic fever (ARF) in children in primary/intermediate schools.

#### METHODS

A Markov model was developed to represent the lifetime impact of one year of primary prevention of ARF with STCs in high risk New Zealand (NZ) schools. It includes the incidence rate, natural history and costs of ARF and rheumatic heart disease; secondary prophylaxis; medical management of carditis; cardiac valve repair/replacement; the overall efficacy of community interventions to prevent rheumatic fever; and the annual cost per child of STCs. The model has a cycle of one year and terminates at age 95. It takes a healthcare payer perspective but excludes costs to families. Future costs and health benefits are discounted at 3.5% per annum.

#### RESULTS

If STCs are 59% efficacious and cost on average \$NZ135 per child per year, for schools at an ARF incidence rate of 75 per 100,000, STCs can be expected to cost about \$NZ60,000 per QALY gained or \$NZ190,000 per ARF case averted or \$NZ2m per death averted. These figures are sensitive to the efficacy and annual cost of the intervention and the incidence of ARF but robust to uncertainty in other variables. The main costs are for project workers and laboratory culture, and the main uncertainty is the efficacy of the intervention.

#### CONCLUSIONS

Sore throat clinics in high risk schools are likely to reduce the risk of acute rheumatic fever and thereby improve survival of Māori and Pacific children. They appear to be moderately cost effective from a NZ government perspective. Their cost effectiveness could be improved by containing staffing costs and/or reducing the cost of laboratory diagnosis of GAS. Implementation of this intervention would reduce the striking disparity between Māori/Pacific and others.

### Economic Evaluation of an Early Childhood Intervention to Reduce Obesity: A Study Using Linked Data

Alison Hayes<sup>1</sup>, Tom Lung<sup>2</sup>, Li Ming Wen<sup>3</sup>, Louise Baur<sup>1</sup>, Chris Rissel<sup>1</sup>, Kirsten Howard<sup>1</sup>

<sup>1</sup>Sydney School of Public Health, University of Sydney, Sydney NSW 2006; <sup>2</sup>School of Population Health, University of Melbourne, Melbourne VIC; <sup>3</sup>Sydney and South Western Sydney Local Health District

4B.4

#### OBJECTIVES

To investigate the costs and cost-effectiveness of an early childhood home visiting programme to prevent childhood obesity.

#### METHODS

Retrospective economic evaluation of the Healthy Beginnings randomised controlled trial (HBT), from the perspective of the health care provider, using linked patient-level data on healthcare resource utilisation. Participants were 465 first time mothers and children from economically disadvantaged areas of Sydney, Australia during

2007–2010. Using standard economic evaluation techniques we investigated the costs and cost-effectiveness of HBT compared to usual care. Incremental cost effectiveness ratios (ICER) were determined per unit reduction in BMI and per 0.1 unit change in BMI z-score at 2 years.

#### LESSONS LEARNED

The cost of the intervention over 2 years (in 2012 AUD) was \$1309 per child. There was no significant difference ( $p>0.05$ ) in mean healthcare utilisation costs per child to age 2 years (\$2582 [control] and \$2706 [intervention]). The ICER was \$4522 per unit reduction in BMI, or \$610 per 0.1 unit reduction in BMI z-score. At a willingness to pay threshold of \$9,000 per BMI unit avoided the intervention has a 80% probability of being cost-effective.

#### IMPLICATIONS

The study has established the costs of delivering an effective weight management programme in the first two years of life. Whilst the intervention may be perceived as being expensive, it delivered greater benefits in BMI reduction than some similarly priced interventions aimed at older children. In addition, the health benefits of a preventive intervention such as this are likely to continue to accrue into the future.

### Economic Evaluation of a Population-Based, Home-Delivered Intervention for Preschool Language Delay in the Community

Lisa Gold<sup>1,2</sup>, Ha Le<sup>1</sup>, Melissa Wake<sup>2,3,4</sup>, Sherryn Tobin<sup>2,3</sup>, Penny Levickis<sup>2,3</sup>, James Law<sup>5</sup>, Obioha C. Ukoumunne<sup>6</sup>, Sharon Goldfeld<sup>2,3,4</sup>, Naomi Zens<sup>2,3</sup>, Sheena Reilly<sup>2,4</sup>

<sup>1</sup>Deakin University; <sup>2</sup>Murdoch Childrens Research Institute; <sup>3</sup>Royal Children's Hospital; <sup>4</sup>University of Melbourne; <sup>5</sup>University of Newcastle; <sup>6</sup>University of Exeter

4B.5

#### OBJECTIVES

Preschool language delay is common and predicts poorer academic, social and employment outcomes. The development of cost-effective population level interventions is imperative, but so far elusive. We aim to determine the cost-effectiveness of systematic ascertainment of language delay at age 4 years, followed by a year-long intervention, for language and related outcomes at ages 5 and 6.

#### METHODS

Cost-consequences analysis alongside a randomized trial nested within a cross-sectional ascertainment of language delay. Children with low expressive and/or receptive language at age 4 entered the trial. Children randomly allocated to the intervention arm received 18 one-hour home-based therapy sessions. Primary outcome was receptive and expressive language (CELF-P2); secondary outcomes were phonological skills and letter awareness, pragmatic skills, behaviour, and child-specific (PedsQL) and utility-based (HUI) quality of life. Program costs and related service use to 6 years of age were estimated in 2012 Australian dollars.

#### LESSONS LEARNED

1464 children were assessed at age 4 and 200 (17.2%) entered the trial, with 90% retained at 5 and 86% ( $n=172$ ) at 6 years. At outcome, adjusted mean differences (intervention–control) showed weak evidence for improvement in expressive language, but sizeable benefits to phonological skills and letter knowledge. No differences were seen in quality of life. Program costs were \$3,231 per family.

#### IMPLICATIONS

A one-year standardised yet flexible program delivered by trained staff who are not speech pathologists is acceptable and feasible to families and service providers, and has the potential to improve long-term consequences of early language delay within a public health framework.

### Cost-Effectiveness of Genetic Screening for Multiple Endocrine Neoplasia Type2B to Prevent Childhood Medullary Thyroid Cancer

Changhao Hou<sup>1</sup>, Stephen Goodall<sup>1</sup>, Jody Church<sup>1</sup>, Hilda High<sup>2</sup>

<sup>1</sup>University of Technology Sydney; <sup>2</sup>Sydney Cancer Genetics

4B.6

#### OBJECTIVES

Multiple endocrine neoplasia type 2B (MEN2B) is a genetic disease that causes multiple tumors on the mouth, eyes, and endocrine glands. The prevalence of MEN2B is estimated to be 1 in 600,000 and leads to

aggressive, usually incurable, medullary thyroid cancer usually during adolescents. MEN2B status can be identified by genetic screening and curative thyroidectomy surgery offered. Despite the clear benefits MEN2B testing is not part of routine clinical management in Australia. The aim of this study is to evaluate the cost-effectiveness of applying different MEN2B genetic screening strategies in Australia.

#### METHODS

A decision analytical model was constructed to evaluate cost per quality-adjusted life-year, life-years gained and case detected by comparing three competing strategies: 1) no MEN2B testing, 2) screening every newborn baby and 3) screening only patients that attend Marfan's clinics (it is estimated that 85% of the MEN2B carriers express Marfanoid habitus, and consequently will be tested for Marfan syndrome). The impact of uncertainty was evaluated using probabilistic sensitivity analysis.

#### LESSONS LEARNED

Current practice (No MEN2B testing) is dominated by providing MEN2B testing at Marfan's clinics; this is because the cost of screening is more than offset by the cost of cancer treatment avoided. When comparing newborn screening (population based screening) to providing MEN2B testing at Marfan's clinics, the incremental cost-effectiveness ratio (ICER) is \$8,669 per QALY gained. The cost per case detected is \$36,235 when providing gene testing at Marfan's clinics and \$407,200 in the newborn screening strategy. Prevalence of MEN2B and the cost of MEN2B testing in Newborn screening are important parameters.

#### IMPLICATIONS

Genetic screening on an individual's risk of cancer is an appealing prospect. We demonstrated that performing MEN2B testing at Marfan's clinics is likely to be cost-saving, compared to current practice. Whilst screening all newborn babies may also be a cost-effective option.

## 4C Service Delivery

13:15-14:45, Tuesday 3 December 2013, Lambton 3

Chair: Laura Wilkinson-Meyers

### Nurse and Senior Management Perceived Barriers and Enablers to Effective Falls Prevention in Acute Public Hospitals: A Qualitative Study

*Anna Barker<sup>1</sup>, Mari Botti<sup>2</sup>, Patricia Livingston<sup>2</sup>, Sandy Brauer<sup>3</sup>, Fiona Landgren<sup>4</sup>, Caroline Brand<sup>1</sup>, Renata Morello<sup>1</sup>, Mayer Melham<sup>1</sup>, Zhao-Chen Bian<sup>1</sup>, Jason Talevski<sup>1</sup>*

<sup>1</sup>Monash University; <sup>2</sup>Deakin University; <sup>3</sup>University of Queensland; <sup>4</sup>Project Health Melbourne

#### 4C.1

#### OBJECTIVES

To assess nurse and senior management perceptions of barriers and enablers to effective falls prevention in acute public hospitals to inform the implementation of a nurse led falls prevention program.

#### METHODS

We undertook 12 focus groups (n=94) with nurses on high falls risk wards, and interviewed 24 senior clinical hospital staff involved in falls prevention across six hospitals in Australia as part of the 6-PACK falls prevention project [1]. Content analysis was undertaken to analyze data.

#### LESSONS LEARNED

Four main themes emerged from the interviews and focus groups that collectively influence the falls prevention practice of participating hospitals: inevitability of falls; perceived effective falls prevention strategies; barriers to effective falls prevention; and enablers of effective falls prevention. Nurses and senior staff reported that most falls could not be prevented and were inevitable events in older patients. Constant patient observers, low-low beds and falls risk alert signs were identified as the most effective falls prevention strategies. Barriers included: difficulty in accessing resources, the high incidence of patients with delirium or cognitive impairment, and inaccurate and lengthy risk assessment tools. Enablers included: nurse unit manager leadership, regular on-ward face-to-face education and effective communication of patients' risk status and need for strategies.

#### IMPLICATIONS

This study provides new information on the perceived barriers and enablers to effective falls prevention practices within acute hospital settings. These results inform that future implementation of falls prevention programs include the promotion of executive and ward

leadership; on-ward face-to-face education and improved access to falls prevention resources.

#### REFERENCES

- [1] Barker A, Brand C, Haines T, Hill K, Brauer S, Jolley D, et al. The 6-PACK programme to decrease fall-related injuries in acute hospitals: protocol for a cluster randomised controlled trial. *Injury Prevention* 2011;17(4):e5-e5

### Considering the Contribution to the Health System of Family Carers Who Manage 'Technical Health Procedures' at Home

*Janet McDonald<sup>1,2</sup>, William Leveck<sup>2</sup>, Sally Keeling<sup>3</sup>*

<sup>1</sup>Health Services Research Centre, Victoria University of Wellington;

<sup>2</sup>University of Otago, Wellington; <sup>3</sup>University of Otago, Christchurch

#### 4C.2

#### OBJECTIVES

Advances in medical care and technology, population ageing, policy shifts and family preferences for community over institutional settings are contributing to increased care at home, much done by family carers. Beyond housework, personal care and/or advocacy, some carers take responsibility for 'technical health procedures' ranging from changing wound dressings to managing a tracheostomy.

The objectives of this research are to describe and develop theory about the learning process of family carers and their experience of managing technical health procedures at home.

#### METHODS

Grounded theory methodology with data drawn from interviews with 26 family carers and 10 health professionals.

#### LESSONS LEARNED

With a continuing emphasis on community care, family carers are an essential but often hidden workforce, supplementing and substituting, unpaid, for professional services.

The 'choice' to care is often constrained by societal, family and health system expectations and limited alternative professional services.

Family carers may manage one or more procedures, with varied training and support. Over time, they can develop expertise with complex care. Their relationship with professionals may evolve from that of learner-teacher to one of partnership.

The boundaries between carer and professional roles are ill-defined.

#### IMPLICATIONS

This presentation will provide a framework for considering the role of family carers who provide technical health care at home and the training and support they need from health services.

### 'Natural' Care: The Lived Experience of European and Chinese Family Carers for Their Stroke Impaired Relatives in Auckland, New Zealand

*Cecilia Wing Chun Wong, Elsie Ho*

*University of Auckland*

#### 4C.3

#### OBJECTIVES

This study investigated the role of informal care support for chronic disability management in New Zealand through the experiences of European and Chinese family carers of stroke survivors.

#### METHODS

Twenty in-depth, semi-structured interviews were conducted with European and Chinese family carers of stroke survivors residing in the Auckland region. The qualitative interviews were transcribed and analysed using an interpretive phenomenological analysis (IPA) approach.

#### LESSONS LEARNED

The findings identified three key areas impacting the lived experiences of informal family carers of stroke survivors important for support services development. Firstly, support services need to target building care capacity within the family unit. A variety of different health and support services are required at different stages of the stroke management journey for reducing the negative physical and emotional health outcomes attributed to care-related burden. Secondly, existing support services may exhibit imbalanced responsiveness between the



needs of the gender groups. Male family carers received less emotional support and experienced more difficulties accessing health services compared with female family carers. Thirdly, the health system is not aware of or responsive to the culturally appropriate support required by our ethnically diverse informal care workforce, such as Chinese family carers. Ethnically diverse family carers experienced additional difficulties navigating support systems incompatible with their cultural model of family care-giving.

#### IMPLICATIONS

The scope of age and disability care in New Zealand is growing; chronic disability management in the home needs to reflect the increased ethnic and cultural diversity of our ageing population.

### Reducing Waiting Time for Community Rehabilitation Services: A Controlled Before and After Trial

*Katherine Harding<sup>1,2</sup>, Nicholas Taylor<sup>1,2</sup>, Sandra G. Leggat<sup>2</sup>, Birgitte Bowers<sup>1</sup>, Maree Stafford<sup>1</sup>*

<sup>1</sup>Eastern Health, Melbourne; <sup>2</sup>La Trobe University, Melbourne

4C.4

#### OBJECTIVES

Waiting lists with triage systems are often used to manage demand for health services. These systems can be subject to bias, and divert resources from patient care into waiting list management. We aimed to investigate whether a simple alternative (STAT: Specific Timely Appointments for Triage) could reduce waiting time for a community rehabilitation program (CRP) without adverse impacts on patient care.

#### METHODS

A before and after trial with a control group was conducted at two CRP sites (n=971) within a large metropolitan health service. Under the STAT model, clinicians created a specified number of assessment times each week based on average referral numbers and patients were immediately allocated an appointment on referral. STAT was introduced at the intervention site and compared to a control site using a triaged waitlist. The primary outcome was waiting time, with secondary outcomes of program duration, quality of life measures and unplanned hospital admissions. Pre and post intervention measures were collected over 6 months in 2 consecutive years.

#### LESSONS LEARNED

Waiting time reduced from a mean of 17.5 days to 10.0 days ( $p < .01$ ) at the intervention site, with no significant change at the control site. Intervention site patients were over 3 times more likely to be seen within 7 days than control site patients. Secondary outcomes did not differ significantly between groups.

#### IMPLICATIONS

A simple alternative to using a triaged waitlist to manage CRP referrals reduced waiting time without adversely affecting care. Results were sustained over 6 months with no additional resources.

### Emergency Demand by Older Patients: Time to Review Care Models

*Judy Lowthian*

*School of Public Health and Preventive medicine, Monash University*

4C.5

#### OBJECTIVES

This research investigated the increase in demand for emergency health services across metropolitan Melbourne with a focus on clarifying the impact of an ageing population. Despite a number of health care funder and service provider initiatives, demand continues to rise. This has major implications for the quality of care, future planning and resourcing.

#### METHODS

Longitudinal analyses of >10,000,000 emergency ambulance transportations (1995–08), ED presentations (2000–09) and emergency hospital admissions (2000–09) used unique population-based datasets and data linkage. Numbers and rates of services and length of stay were analysed. Predictive modelling forecast future demand; and effects of multiple factors on outcomes were modelled. Older patient needs for urgent care were explored.

#### LESSONS LEARNED

The volume and rates of emergency healthcare use increased beyond that expected from population changes. The greatest increase in use of emergency ambulances, EDs and hospital admission through EDs was by older age groups. Predictive modelling suggested further increases

by 2015. The number re-attending ED  $\geq 4$  times within a 12 month period doubled in a decade, contributing to 23% of total elderly visits in 2008/09. Interviews with patients of low urgency who could have chosen to use alternative providers, indicated their reasons underpinning ED attendance were expectations for timely specialist care and reduced accessibility to primary care including home visits.

#### IMPLICATIONS

Emergency demand by the elderly will persist. Expectations of care by patients/carers are increasing, and EDs might not be best placed to manage this. Solutions probably lie in community-based integrated systems of care currently not available.

### Do Patients with Chronic Conditions Have a Different Experience of Primary Care in New Zealand?

*Rob McNeill<sup>1</sup>, Kathrin Mild<sup>2</sup>, Toni Ashton<sup>1</sup>, Peter Carswell<sup>1</sup>, Tim Kenealy<sup>1</sup>, Tim Tenbensen<sup>1</sup>*

<sup>1</sup>School of Population Health, University of Auckland; <sup>2</sup>FH Burgenland (Pinkafeld)

4C.6

#### OBJECTIVES

The growing population of people with chronic conditions require a primary care system that is flexible to their often complex needs. The aim of this paper is to explore the different experiences of patients with and without chronic conditions within the New Zealand primary care setting.

#### METHODS

1131 patients completed a survey about their experiences with primary care, and predominantly in relation to their general practitioner (GP) visits. The sample was split into those with a self-reported chronic condition (63%) and those without (37%). The experiences were compared statistically using Chi-square tests and z-test for differences in proportions.

#### LESSONS LEARNED

The results showed that patients with chronic conditions were more likely to have a regular GP, as well as visit their GP and other medical services (including nurses, specialists and emergency departments) more often. They were also more likely to trust their GP, feel that their GP knew about their living situation and current medication, and to have received general health advice.

#### IMPLICATIONS

The findings provide positive evidence that patients with chronic conditions are receiving better care and have a better relationship with their GP than those without a chronic condition. This suggests that our primary care system is indeed flexible to the complex needs of this population.

## 4D Primary Health Care

13:15-14:45, Tuesday 3 December 2013, Featherston

Chair: Marion Haas

Abstract 4D.1 removed following author request

Abstract 4D.1 removed following author request

## Strengthening Australia's Primary Care Sector: The Role and Experience of Medicare Locals

Melissa Denehy, Suzanne Robinson, Vijaya L. Ramamurthy, Delia Hendrie, Linda Selvey, Eugenia Cronin, Peter O'Leary

Curtin University

4D.2

### OBJECTIVES

The role of Medicare Locals (MCL) is to strengthen primary care (PC) by enabling more integrated and locally responsive services. At this stage, MCL are young organisations trying to establish and develop their place in a challenging PC environment. The aim of the study is to evaluate the extent to which MCL have achieved their strategic policy objectives.

### METHODS

The study encompasses two components: 1) a national survey providing high-level evidence on the 'current state of play' around structure, impacts, lessons, and learnings arising from MCL; and 2) detailed case study research of three sites across Australia, enabling in-depth qualitative analysis of MCL implementation.

### LESSONS LEARNED

Preliminary findings from the study clarify implementation difficulties faced by MCL. In seeking to improve health system coordination and integration with limited direct power and authority, MCL must rely heavily on influence and negotiation, to secure the buy-in of different health service providers. The efforts are beginning to result in some 'early wins' across sites, these successes offering valuable lessons for future policy and practice. One specific emerging factor is that of leadership, and the approaches and behaviours required to navigate the political complexities of working within and across organisations, often with divergent incentives, systems and cultures.

### IMPLICATIONS

Findings from this study will produce important insights into the implementation of MCL reform, this evidence being immediately relevant to policymakers and practitioners, as they seek to further shape the role of MCL and embed these organisations into the Australian health system.

## Medicare Locals: A Model for Integration in Primary Health Care

Petra Bywood<sup>1</sup>, Lynsey Brown<sup>1</sup>, Rachel Katter<sup>1,2</sup>

<sup>1</sup>Primary Health Care Research and Information Service; <sup>2</sup>now with Queensland Health

4D.3

### OBJECTIVES

Australian Medicare Locals (MLs) have been established to improve the patient's journey through the health care system by facilitating integrated services that meet the local community's needs. How MLs are expected to achieve better integration is not clearly defined. This absence of a clear definition is reflected in the literature, where a multitude of definitions exist. The main objective of this study was to explore MLs' understanding of integrated care, how they planned to integrate services across primary health and acute care sectors, and identify the challenges faced by MLs as agents for integration.

### METHODS

Five CEOs from the first round of 19 established MLs agreed to participate in semi-structured telephone interviews. Participants represented MLs from different States and Territories, ranging from metropolitan to rural and remote areas. Interview transcripts were analysed using a thematic approach.

### LESSONS LEARNED

ML CEOs identified several key themes in their interviews, including: variation in understanding of integration; tension between competition and collaboration in service delivery; patient-centred care as a key principle; barriers and enablers to integration; impact of historical factors; and need for ongoing resources to sustain integration efforts.

### IMPLICATIONS

This project enabled participants to contribute their knowledge and experience to an analysis of a key building block of the Australian health reform agenda. The variation across MLs regarding their understanding of integration, challenges and ways to operationalise integration may assist other primary health care organisations and policy makers to develop effective implementation strategies for integrated care.

## Measuring and Monitoring in Difficult Times: Tracking to Mitigate Health Inequities in Primary Health Care Organizations

Annette J. Browne<sup>1</sup>, Colleen Varcoe<sup>1</sup>, Marilyn Ford-Gilboe<sup>2</sup>, Josée G. Lavoie<sup>3</sup>, Sabrina T. Wong<sup>1</sup>, Victoria Smye<sup>1</sup>

<sup>1</sup>University of British Columbia; <sup>2</sup>Western University; <sup>3</sup>University of Northern British Columbia

4D.4

### OBJECTIVES

Mounting evidence reveals that health and healthcare inequities are increasing, and are significantly and positively correlated with experiences of racialization, socioeconomic inequities, and systemic and interpersonal discrimination. In this paper, we explore the potential of purposeful use of data as a strategy to promote equity. We apply an equity lens to examine strategies for measuring and monitoring health inequities with a view to generating data that can be meaningfully used to mitigate the negative effects of health and social inequities.

### METHODS

We draw on research conducted in Canada that aims to test the effectiveness of an innovative organizational-level intervention to enhance to enhance primary health care (PHC) services to patient-populations affected by major social disadvantages. We discuss the methods used to: (a) collect patient data using existing and new scales and measures to track experiences of healthcare, health status, and key health outcomes, and (b) track organizational-level efforts to address health equity using Equity-Sensitive PHC Indicators.

### LESSONS LEARNED

Drawing on data collected from (a) a cohort of 600 patients, and (b) a newly developed set of Equity-Sensitive PHC Indicators, we report on the effectiveness and feasibility of these measures.

### IMPLICATIONS

Healthcare organizations need to take seriously the axiom that "what counts is what gets counted". Innovative approaches to measuring and monitoring are needed to better address and mitigate health inequities.

## Medicare Local Needs Assessment Through Practice Manager and General Practitioner Engagement

Richard Varhol<sup>1</sup>, Ori Gudes<sup>2</sup>, Amanda Bedford<sup>3</sup>, Suzanne Taylor<sup>3</sup>, Suzanne Robinson<sup>1</sup>

<sup>1</sup>Department of Health Policy and Management, School of Public Health, Curtin University; <sup>2</sup>Department of Spatial Sciences, Western Australian School of Mines, Curtin University; <sup>3</sup>Perth South Coastal Medicare Local

4D.5

### OBJECTIVES

The establishment of Medicare Locals (MCLs) is a fundamental element of Australia's National Health Reform. One of the directives of MCLs is to undertake a needs assessment analysis for their local population. Current needs assessment vary in terms of methodology and approach and many MCLs have struggled to access high quality data. The aim of this research is to explore the range and availability of local General Practice (GP) data and identify the interest and willingness of GPs in collaborating with the MCL around planning, research and service delivery.

### METHODS

We engaged 44 practices within the Perth South Coastal Medicare Local (PSCML), to participate in face-to-face or phone interviews. A preliminary scoping study was conducted with a practice that was chosen

from a cohort known for their enthusiasm for engagement. An additional focus group was held with GPs willing to participate in an overarching needs assessment information gathering session.

#### LESSONS LEARNED

Preliminary findings suggest there is rich and informative data collected within GPs; stronger engagement activities between the MCL and GPs have the potential to inform planning, research and service delivery; the importance of stakeholder engagement.

#### IMPLICATIONS

The engagement of GPs in health planning is crucial to MCLs going forward. The current data held at the local level could play an important role in increasing the quality of needs assessments. However, building trust and healthy relationships between organisations takes time and effort. The utilization of the MCL resource could enable GPs to engage more fully in research and planning activity.

### A 'Sun Model' for Service System Development in Rural Medicare Locals

*Kate Silburn<sup>1</sup>, Kate Sieh<sup>2</sup>*

<sup>1</sup>Australian Institute for Primary Care & Ageing, La Trobe University; <sup>2</sup>Goulburn Valley Medicare Local

4D.6

#### OBJECTIVES

Medicare Locals have been established in Australia to operate as regional level primary healthcare system planners. While population need is one criteria for informing service system development, there are currently no frameworks describing core primary healthcare functions to guide MLs in development of rational service systems that will effectively meet population need particularly in rural catchments.

#### METHODS

A review of evidence about definitions of health systems, scope of services required to meet consumer need, services deliverable within a primary care setting, criteria used to determine location of services in rural areas and guidelines for delivery of a range of health services was utilised to develop a conceptual model.

#### LESSONS LEARNED

A 'sun model' for rural health service provision has been developed, with key elements including: child and maternal health, chronic illness, mental health, oral health, general medical care for adolescents and adults, care for older persons, urgent medical care and end of life care. The representation of health promotion and primary prevention, secondary and tertiary prevention, clinical care, diagnostics, pharmacy and referral requirements are all considered in the model. Further work to refine and test the model is currently underway.

#### IMPLICATIONS

When finalised this model should assist rural MLs identifying where there is an appropriate level of service provision and where there are gaps and enable effective decision making about service and capacity development when opportunities arise.

## 4E Geography and Decentralisation

13:15-14:45, Tuesday 3 December 2013, Rosanna

Chair: Jacob Daubé

### Multimorbidity in Older Australians: Patterning by Age, Sex and Socioeconomic Status

*Sanja Lujic, Louisa Jorm*

*University of Western Sydney*

4E.1

#### OBJECTIVES

To investigate how multimorbidity (presence of two or more chronic conditions) in older Australians varies by age, sex and socioeconomic status.

#### METHODS

We used self-reported data from 267,091 participants in the 45 and Up Study and logistic regression to estimate odds ratios (OR) and 95% confidence intervals (CI) for multimorbidity ( $\geq 2$  of eight doctor-diagnosed chronic conditions) for males and females, separately. Quartiles of socioeconomic status (SES) were assigned using residential postcode. Ratio of ratios (ROR) were used to compare effect sizes between males and females.

#### LESSONS LEARNED

A total of 82,840 (31%) participants (39,064 [32%] males and 43,776 [31%] females) had multimorbidity. The prevalence of multimorbidity was higher in older people and those of lower SES, with significant SES, age and sex interactions present. Among participants aged 45 to 64 years, multimorbidity was strongly associated with low SES (OR 1.38, 95% CI: 1.33–1.43 in low SES compared with high SES), and prevalence was similar for males and females across all SES quartiles. Males aged 64–84 had significantly higher odds of multimorbidity than females in this age group, across all SES quartiles (ROR 1.29, 95%CI 1.21–1.28 in high SES and ROR 1.23, 95%CI 1.15–1.31 in low SES quartile), while the odds of multimorbidity did not differ significantly according to either SES or sex in people aged 85+.

#### IMPLICATIONS

Prevention efforts targeting people of low SES aged 45–64 years, and males aged 64–84 years, regardless of SES, may have the greatest impact on the growing burden of multimorbidity in older Australians.

### Geographic Variation in Medical Expenditures for GP Services in NSW Older Adults: What Varies, How Much and Where

*Federico Girosi<sup>1</sup>, Xiaoqi Feng<sup>1</sup>, Danielle Butler<sup>2</sup>, Thomas Astell-Burt<sup>1</sup>, Soumya Mazumdar<sup>2</sup>, Ian McRae<sup>2</sup>, Louisa Jorm<sup>1</sup>*

<sup>1</sup>University of Western Sydney; <sup>2</sup>Australian National University

4E.2

#### OBJECTIVES

Geographic variation in health care has been frequently observed. Understanding its determinants and unexplained portion will help to identify both inefficiencies and inequities in resource allocation. Our study investigated primary care expenditures and utilization in older adults in NSW, Australia. First, we explored the degree of geographic variation in per capita expenditures, GP visits and out of pocket (OOP) costs and then we estimated how much of the variation was explained by individual characteristics and local attributes such as remoteness or GP density.

#### METHODS

We used survey data from the 45 and Up Study linked to Medicare Medical Benefits Schedule claims. As geographic units, we used both Statistical Local Areas and catchment areas for GP services, also known as Primary Care Service Areas (PCSAs). We used regression analysis to quantify the extent of the variation explained by individual and area-level variables.

#### LESSONS LEARNED

Local features such as the remoteness of an area play an important role in explaining geographic variation in expenditures (Medicare and OOP) and GP visits, and regions with different remoteness displayed different patterns: for example, outer regional areas displayed much less variation in price per visit than major cities, while showing a comparable amount of variation in yearly visits.

#### IMPLICATIONS

Analysis of geographic variation is important in identifying misallocation of health care resources, and exploring its determinants points to policy levers that might address this. Area level variables such as remoteness play a key role in understanding geographic variation in primary care expenditures and GP visits.

### Contributions of Individual and Geographic Factors to Variation in Potentially Preventable Hospitalisations

*Michael Falster<sup>1</sup>, Alastair Leyland<sup>2</sup>, Louisa Jorm<sup>1,3</sup>*

<sup>1</sup>Centre for Health Research, University of Western Sydney; <sup>2</sup>MRC/CSO Social and Public Health Sciences Unit, University of Glasgow; <sup>3</sup>Sax Institute

4E.3

#### OBJECTIVES

Potentially preventable hospitalisations (PPH) are those which could potentially be prevented through timely access to quality primary and preventive care. Rates of PPH are compared between geographic areas as an indicator of health system performance. However, rates of PPH admission may be influenced by the composition of the population, and the interpretability of these comparisons is unclear. This study estimated the independent contribution of geography to variation in PPH.

## METHODS

The study included 262,758 participants from the 45 and Up Study, who completed a self-reported questionnaire on their demographics, socio-economic status, health and behaviour. Linked hospital data were obtained to identify PPH admissions. Multilevel logistic models were used to examine risk of PPH admission, with participants clustered within Statistical Local Areas (SLAs) of residence. A variance partitioning coefficient (VPC) was calculated to estimate the proportional contribution of geography to variation in risk of PPH admission.

## LESSONS LEARNED

15,516 study participants (5.9%) had a PPH admission within 2 years of study entry. Geography contributed a small amount to the age-sex adjusted risk of admission (VPC=1.6%). This contribution was larger for vaccine preventable (VPC=8.1%) than chronic (VPC=1.9%) or acute (VPC=1.3%) conditions. Additional variables on personal characteristics explained 43% of the area-level variation for chronic conditions, but little of the area-level variation in acute or vaccine-preventable conditions.

## IMPLICATIONS

Geographic variation at the SLA level makes a relatively minor contribution to the risk of PPH admission. Its role is greatest for vaccine-preventable conditions. Personal characteristics largely drive risk of admission for chronic conditions.

## The Pathway to Decentralisation and Local Autonomy: Lessons for Policymakers

*Vijaya L. Ramamurthy<sup>1,2</sup>, Suzanne Robinson<sup>2</sup>, Delia Hendrie<sup>2</sup>, Peter O'Leary<sup>2</sup>*

<sup>1</sup>Western Australia Department of Health; <sup>2</sup>Curtin University

4E.4

## OBJECTIVES

There is concerted move towards more decentralised governance in the Australian health system, to enable local health service providers to be more flexible, innovative and responsive. Beyond the new local governance structures and national policy levers to incentivise and influence the choices, behavior and performance of local providers, there remain many practical design and change management issues for state policymakers seeking to translate this reform into unique local contexts. This study focuses on one aspect of local context — the attitudes and decision-making behavioral traits of local providers — with a view to better understanding the design and change management implications of introducing more devolved forms of governance.

## METHODS

The study uses a case study research methodology with a mixed methods approach. In-depth surveys, interviews and document content analysis are conducted on two Australian states, one in early stages of decentralisation, Western Australia and the other in a more mature state of decentralisation, Victoria.

## LESSONS LEARNED

Preliminary findings from the study confirm that a sound understanding of local context is vital in designing and implementing effective decentralisation. This knowledge allows policymakers to carefully balance governance mechanisms, adjusting the mix between central control, incentives and autonomy over time in the pathway to greater decentralisation.

## IMPLICATIONS

The research will inform policymakers who are designing and implementing greater decentralisation of health system governance by providing relevant evidence on the pathways and mechanisms that can be used and the local factors and conditions that can affect the effectiveness of the results achieved.

## Geographies of Primary Health Care Services in New South Wales, Australia

*Soumya Mazumdar<sup>1</sup>, Xiaoqi Feng<sup>2</sup>, Paul Konings<sup>1</sup>, Federico Girosi<sup>2</sup>, Ian McRae<sup>1</sup>*

<sup>1</sup>Australian Primary Healthcare Research Institute, Australian National University; <sup>2</sup>Centre for Health Research, School of Medicine, University of Western Sydney

4E.5

## OBJECTIVES

Primary health care services are often targeted and evaluated along geographical boundaries. However, pre-existing administrative

boundaries may not reflect patterns of existing use of primary health care services and thus may not be suitable for this purpose. This motivates the need for bespoke geographies of self-sufficient primary health care use, where the majority of health services accessed in these geographies are from people living within them. Such geographies are extant in the United States and are known as Primary Care Service Areas (PCSAs). This study is the first time they have been developed in Australia.

## METHODS

The locations of approximately 260,000 patients geocoded to Postal Areas (POA) from the 45- and Up Study in New South Wales was linked to the POA locations of General Practitioners (GPs) patronized by them in Medicare Benefits Scheme data. Patient Postal areas were allocated to PCSAs following a "maximum vote" methodology similar to the one used by Goodman et al in the United States.

## LESSONS LEARNED

A majority (median 55%) obtain their primary healthcare from within their PCSAs. In contrast a minority obtain their primary healthcare from within a POA.

## IMPLICATIONS

PCSAs are a new and rational geography in Australia at which primary healthcare research and policymaking can be implemented following the lead of the United States. PCSA data will be made freely available for stakeholders and researchers to use.

## Spatial Literacy for the Health Sciences: Capacity Building for the 21<sup>st</sup> Century

*Hamish Robertson<sup>1</sup>, Nick Nicholas<sup>2</sup>, Tuly Rosenfeld<sup>3</sup>, Andrew Georgiou<sup>1</sup>, Julie Johnson<sup>1</sup>, Joanne Travaglia<sup>3</sup>*

<sup>1</sup>Australian Institute of Health Innovation, University of New South Wales, Sydney; <sup>2</sup>The Demographer's Workshop, Sydney; <sup>3</sup>Faculty of Medicine, University of New South Wales, Sydney

4E.6

## OBJECTIVES

This paper identifies the implications of this rapidly developing field of science for healthcare research, planning and provision. Spatial science and technology are developing at a rapidly escalating pace. The US Department of Labor has identified spatial science as one of three meta-technologies for the 21<sup>st</sup> century.

## METHODS

This is a conceptual paper arising from doctoral and related research conducted by the authors. It draws on literature searches across several fields including health geography, geographic gerontology and the spatial sciences. As well as this, elements of this subject have been presented and discussed at national and international conferences.

## LESSONS LEARNED

The growing complexity of human health-environment problems including climate change, emergent zoonotic diseases and urbanization and pollution, demands an enhanced level of spatial literacy in educational frameworks across the health sciences. This paper provides a starting point for the necessary discussion for how such spatial competency might be developed and the value of such skills for emerging health researchers.

## IMPLICATIONS

In this paper we explore some of the future implications of the current lack of spatial literacy in healthcare and make some proposals for improving spatial knowledge and skills along with examples of their application in healthcare environments.

## 4F Indigenous Health

13:15-14:45, Tuesday 3 December 2013, Wellington

Chair: Kim O'Donnell

## An Investigation of the Determinants of Adherence to Highly Active Anti-Retroviral Therapy in Aboriginal Men in the Downtown Eastside of Vancouver

*Meck Chongo, Josée G. Lavoie, Ross Hoffman, Mamdouh Shubair*  
University of Northern British Columbia

4F.1

## OBJECTIVES

The eradication of HIV is not yet possible therefore persons undergoing treatment must take highly active anti-retroviral therapy (HAART)

regularly. In British Columbia (BC), the HIV-related annual mortality rate stands at 9%. The Aboriginal population in BC alone makes up 13% of new HIV infections, many of whom are less likely to engage in effective care. The purpose of this study was to investigate the determinants of adherence to HAART in Aboriginal men in the Downtown Eastside of Vancouver and to offer culturally-sensitive recommendations aimed at improving access to HAART and reducing deaths due to HIV/AIDS.

#### **METHODS**

This study applied the methods of the Vancouver School of Doing Phenomenology. Recruitment was through purposive and snowball sampling. Data was collected from twenty-two participants using interviews and a focus group. Data was transcribed, coded, and thematic analysis conducted.

#### **LESSONS LEARNED**

Five themes emerged; patient factors, inter-personal factors, support structures, history of trauma, and medication-related factors. Many psychological and socioeconomic factors affect adherence. The presence of stigma and discrimination, and a negative patient-care provider relationship reduce adherence. Various support structures improved adherence. A history of trauma contributed to reduced adherence or led to development of survival skills. Finally, a complex treatment regimen and development of side effects of medications reduced adherence.

#### **IMPLICATIONS**

Some of the adverse determinants may be overcome by providing better education about HIV/AIDS, stigma and discrimination, Aboriginal history, the need for adherence, professional and lay support, and encouraging patients to follow their traditional ways of living.

### **Aboriginal Men's Narratives of Health: Reclaiming Our Lives**

*Victoria Smye<sup>1</sup>, Paul Gross<sup>2</sup>, Annette J. Browne<sup>1</sup>, Colleen Varcoe<sup>1</sup>, Richard Johnson<sup>2</sup>, Viviane Josewski<sup>1</sup>, William Mussell<sup>3</sup>, Elmer Azak<sup>2</sup>*

<sup>1</sup>University of British Columbia; <sup>2</sup>Vancouver Native Health Society; <sup>3</sup>Sal'i'shan Institute

4F2

#### **OBJECTIVES**

Despite evidence of disproportionate health inequity and inequity associated with health service and support access, men's health issues have been largely glossed over by Canadian health authorities, and other decision making bodies, and little is known about men's distinct health experiences and their health and social support needs. This is particularly true for Aboriginal men whose voices tend to be excluded by the health policies, structures and social organization of the dominant culture. The purpose of this presentation is to provide a glimpse into the findings of a participatory ethnographic study which has been informed by an Indigenous relational lens.

#### **METHODS**

Focus groups, participatory observation, photovoice and videography are being employed in this research with men whose health has been shaped by multiple forms of inequity. The study has been designed to explore [Aboriginal] men's experiences of health and well-being and health and social service supports, i.e., their health narratives to inform an understanding of what constitutes appropriate, [culturally] safe health and social services and support.

#### **LESSONS LEARNED**

Drawing on the findings of focus group interviews, participatory observation and photovoice, we present the narratives of men, including a video clip with several men who access a health service/support (the Dudes Club), to elucidate what is deemed safe and appropriate health services and support.

#### **IMPLICATIONS**

The specific experiences and needs of men need to be considered in the design and delivery of health and social service supports to inform the improvement of men's access to culturally safe and effective health care.

### **Where in Models of Care is the Imperative to Address Trauma and Violence?**

*Colleen Varcoe<sup>1</sup>, Annette J. Browne<sup>1</sup>, Marilyn Ford-Gilboe<sup>2</sup>, Victoria Smye<sup>1</sup>*

<sup>1</sup>University of British Columbia School of Nursing; <sup>2</sup>University of Western Ontario Lobbatt School of Nursing

4F3

#### **OBJECTIVES**

To consider possibilities for addressing trauma and violence in health services as integral to promoting equity.

#### **METHODS**

Our program of research includes a) longitudinal studies of the health effects of violence, b) ethnographic studies of how dominant health organizational practices and models of care reproduce and sustain structural inequities, and c) studies of interventions to address the health effects of violence and trauma at both individual and organizational levels. We draw from this research, conducted in partnership with the anti-violence service sector, the primary health care sector, and various indigenous communities and organizations.

#### **LESSONS LEARNED**

First, findings ways to effectively address trauma and violence within the health services sector is imperative to reducing social and health inequities. This is particularly obvious in the case of indigenous populations who globally endure the highest levels of structural violence (including poverty, racism, dislocation and dispossession) and interpersonal violence. Second, dominant models of care that privilege efficiency, cost constraint and personal responsibility for health favour the most privileged members of society and disadvantage those most marginalized. These dominant models also run contrary to the strategies needed to effectively address the health effects of violence and trauma. Quick fix models such as 'screening' for violence are compatible with dominant models, but unlikely to promote equity.

#### **IMPLICATIONS**

Every model of care needs to be scrutinized through a trauma- and violence-informed lens if health equity is to be promoted. We discuss implications for health services researchers, policy- and decision-makers.

### **Admission to Hospital for Pneumonia and Influenza Attributable to Pandemic H1N1 Influenza in First Nations Communities in 3 Provinces of Canada**

*Michael Green<sup>1,2</sup>, Sabrina T. Wong<sup>3</sup>, Josée G. Lavoie<sup>4</sup>, Jeff Kwong<sup>2,5</sup>, Leonard McWilliam<sup>6</sup>, Sandra Patterson<sup>3</sup>, Gouyuan Liu<sup>2</sup>, Alan Katz<sup>6</sup>*

<sup>1</sup>Department of Family Medicine and Centre for Health Services and Policy Research, Queen's University; <sup>2</sup>Institute for Clinical Evaluative Sciences; <sup>3</sup>Centre for Health Services and Policy Research and School of Nursing, University of British Columbia; <sup>4</sup>School of Health Sciences, University of Northern British Columbia; <sup>5</sup>Department of Family and Community Medicine, University of Toronto; <sup>6</sup>Manitoba Centre for Health Policy, University of Manitoba

4F4

#### **BACKGROUND**

Early reports of the 2009 A/H1N1 pandemic indicated that a disproportionate burden of illness fell on Indigenous populations. This study was undertaken to determine the differences in population level impact between residents of First Nations communities and the general population and to explore the possible impact of variability in approaches to pandemic control.

#### **METHODS**

Administrative claims data from three provinces were geocoded to identify residents of First Nation communities. Hospitalization rates for Pneumonia and Influenza (P & I) during both waves of pH1N1 were compared to rates during the same time periods for the five previous years to establish attributable rates.

#### **LESSONS LEARNED**

Residents of First Nation communities were both more likely to be admitted for P&I prior to the pandemic (RR 1.5–2.1) and to have a pH1N1-related admission ([RR] 2.8–9.1). There was an average increase of 45% over the baseline in P&I admissions for First Nations in all 3 provinces. Subgroup analysis showed no additional risk for remote or isolated First Nation communities. In remote and isolated Ontario First Nation communities rates of admission for P&I were lower during the pandemic period.

## IMPLICATIONS

There was an increased risk of hospital admissions for P&I in First Nation communities in all provinces, both at baseline and related to the pandemic. We were unable to confirm the assumption that remote communities would be higher risk for H1N1 associated hospitalization. The aggressive approach to pandemic control in Ontario remote and isolated First Nation communities may have reduced its impact in these areas.

## Variation in Approaches to the Management of Pandemic H1N1 Influenza in First Nations Communities in 3 Provinces of Canada

Sabrina T. Wong<sup>1</sup>, Michael Green<sup>2,3</sup>, Josée G. Lavoie<sup>4</sup>, Leena Wu<sup>1</sup>, Tracey Ma<sup>1</sup>, A.J. Kadhim<sup>2</sup>, Deepa Singal<sup>5</sup>, Alan Katz<sup>5</sup>

<sup>1</sup>School of Nursing and Centre for Health Services and Policy Research, University of British Columbia; <sup>2</sup>Department of Family Medicine and Centre for Health Services and Policy Research, Queen's University; <sup>3</sup>Institute for Clinical Evaluative Sciences; <sup>4</sup>School of Health Sciences, University of Northern British Columbia; <sup>5</sup>Manitoba Centre for Health Policy, University of Manitoba

4F.5

## BACKGROUND

Early reports of the A/H1N1 pandemic indicated that a disproportionate burden of illness fell on Indigenous populations. This study was undertaken to determine the differences in approaches used to manage the pandemic at the population level in both the general population and in First Nations (FN) communities in three different provinces of Canada.

## METHODS

A document review was conducted and all available guidelines and policy documents related to pH1N1 were reviewed using a common framework to categorize approaches to pandemic control. In addition, key informant interviews were conducted with key decision-makers (n=17) involved in the development and implementation of these guidelines and policies.

## LESSONS LEARNED

Almost 350 documents were identified. Interviewees noted that guidance documents lacked evidence in determining which communities were "at risk." Together, the documents and conflicting evidence from decision-makers working with communities created great confusion for front-line providers. There were some key differences between jurisdictions in the indications for the use of antiviral medications, cancellation of mass gatherings, and infection control measures. The nature and extent of pre-existing ongoing relationships between the organizations responsible for public health in First Nations communities and the provinces were a key factor in determining the success of the response.

## IMPLICATIONS

Cross-jurisdictional coordination, fewer guidance documents, and integration of evidence for at-risk communities are needed for effective pandemic preparedness. Responding effectively to public health threats in First Nations communities requires ongoing respectful and meaningful collaborations between these communities and the various levels of government responsible for delivery of health services.

## Aboriginal Family Birthing Program in South Australia: Findings of the Aboriginal Families Study

Stephanie Brown, Donna Weetra,  
Aboriginal Families Study Collaborative Group  
Healthy Mothers Healthy Families Research Group, Murdoch Childrens Research Institute

4F.6

## OBJECTIVES

To compare experiences of and views of women attending standard (mainstream) models of antenatal care with those accessing care via Aboriginal Family Birthing Program (AFBP) services involving Aboriginal Maternal Infant Care (AMIC) workers.

## METHODS

Population-based study of women giving birth to an Aboriginal baby in South Australia between July 2011–June 2013 conducted in partnership with the Aboriginal Health Council of South Australia. Women living in metropolitan, regional and remote communities in South Australia completed a booklet-based interview with an Aboriginal research interviewer when their baby was 4–12 months old.

## LESSONS LEARNED

Of the first 130 participants, 44% had attended Aboriginal Family Birthing Program (AFBP) services. 93% of women attending metropolitan AFBP services and 80% of women attending rural AFBP services had their first visit for pregnancy care in the first trimester. Feedback from women about mainstream care showed that antenatal care frequently failed to meet their needs: 42% of women attending mainstream public antenatal care services and 50% attending midwifery group practice said their care was 'very good', compared with 80% of women attending metropolitan AFBP services, and 57% attending regional AFBP services. Women attending AFBP services were more likely to say caregivers remembered them, used words they could understand and explained tests in ways they could understand.

## IMPLICATIONS

Women attending AFBP services were much more likely to have positive experiences of antenatal care. These positive experiences are likely to translate into better engagement with services, and ultimately into better health outcomes for Aboriginal women and children.

## Plenary Session 5

15:15-16:45, Tuesday 3 December 2013, Lambton 1-3

Chair: Marion Haas

## Making Research and Evaluation More Relevant and Useful in the Real World: Favoured Solutions and Uncomfortable Realities

Nicholas Mays

Department of Health Services Research & Policy, London School of Hygiene and Tropical Medicine, 15–17 Tavistock Place, London WC1H 9SH

PL5.1

Health researchers are now strongly encouraged to make their work more timely and relevant in a range of ways, and are increasingly required to demonstrate real world 'impact'. Policy makers, in turn, are increasingly being told that they should make policy by experimenting like scientists, even going so far as to develop the notion of 'social equipoise' to match the concept of 'clinical equipoise' that underpins clinical trials. In either case, are these realistic expectations even in the health field where research and evaluation occupy a relatively prominent position? What is it sensible for researchers to do and to aspire to do in this regard? What changes can and should politicians and policy agencies implement? Drawing on experience as an applied health researcher and policy adviser in government, I will attempt to stimulate reflection on these questions.

## Primary Health Care in Australia: How Can Research Support Health System Development

Jane Hall<sup>1,2,3</sup>

<sup>1</sup>REFinE (Research Excellence in the Finance and Economics of Primary Health Care); <sup>2</sup>CHERE (Centre for Health Economics Research & Evaluation); <sup>3</sup>UTS Business School

PL5.2

Current health system reform and development in Australia has been focussed on the hospital sector, with relatively minor changes in the funding, organisation and delivery of primary care. As over 80% of the Australian population visits a general practitioner in a year, while only 13% of Australians are admitted to hospital, further reforms to deliver better services across the population should focus on the out of hospital sector.

The current structure of primary care provision in Australia reflects the strengths and weaknesses of the Australian health care system, including its universality, its public/private sector interplay, the interplay of Commonwealth and State programs, its poor co-ordination and gaps in service provision.

This basic structure was designed when life was generally short, disease was acute, and medical care had limited effectiveness; and the premise underpinning government funding was the personal interaction of the patient and the doctor. Now, death has largely gone out of fashion, particularly at younger ages, while chronic conditions are increasingly prevalent. While there is much discussion about medical technology, less attention has been paid to technology in general. Yet this will

change the way people live and how services can be delivered. This presents major challenges in health system redesign, including methods of funding providers, and also in research to support evidence based policy. Research which relies on taking current patterns of disease and service use and extrapolating them into the future will not be valid.

## Plenary Session 6

08:30-10:00, Wednesday 4 December 2013, Lambton 1-3

Chair: Robin Gauld

### Primary Health Care Challenges in New Zealand

*Cathy O'Malley*

Deputy Director General:SCI at Ministry of Health New Zealand

PL6.1

No abstract was available at the time of publication.

### Implementing and Evaluating Integrated Services in the English National Health Service: A New Epoch or the Emperor's New Clothes?

*Rebecca Rosen*<sup>1,2,3</sup>

<sup>1</sup>Nuffield Trust; <sup>2</sup>Ferryview Health Centre; <sup>3</sup>Greenwich Clinical Commissioning Group

PL6.2

The English National Health Service is experiencing a period of unprecedented reform and financial pressure. Funders now have a duty to promote both integration and competition and to involve patients in planning and funding decisions. The challenges of developing high quality integrated services at pace and scale in this complex landscape are significant, as are the methodological challenges of evaluating their impact.

#### OBJECTIVES

To provide an overview of recent policy to promote integrated care in the English National Health Service; describe progress with implementation and examine the methodological challenges associated with evaluating the impact of integrated services.

#### METHODS

The presentation will combine a review of recent policy on integrated care with case studies to illustrate the diverse services that are emerging, the methods used to support implementation, and approaches to managing the tensions between contradictory policy requirements. It will also review the methodological challenges associated with evaluating integrated services, focusing on a cluster of recent evaluations to describe the methods used, main findings and key limitations.

#### LESSONS LEARNED

New contracting mechanisms are emerging that seek to promote integration between different providers and service sectors at a larger scale than previously seen. Research on integrated services continues to illustrate the methodological challenges of evaluating complex interventions with recent studies of English integrated services demonstrating equivocal impact.

#### IMPLICATIONS

Despite integration being a policy priority, there remain many barriers to the development of integrated service, which only a few organisations are overcoming. Local payers are struggling to reconcile the duties under which they operate in order to achieve more integrated services, although there are some exceptions emerging. The use of mixed methods combining matched control analyses, qualitative methods and formative assessment is proposed as a pragmatic approach to evaluating integrated services.

## 5A Quality and Safety

10:30-12:10, Wednesday 4 December 2013, Lambton 1-3

Chair: Jeff Foote

### Utilisation of Medicare Subsidised CT Scanning and the Impact on Radiation Risk in Australia — A Retrospective Cohort Study

*David A.J. Gibson*<sup>1</sup>, *Rachael Moorin*<sup>1,2</sup>, *James Semmens*<sup>2</sup>, *C. D'Arcy J. Holman*<sup>1</sup>

<sup>1</sup>Centre for Health Services Research, School of Population Health, University of Western Australia; <sup>2</sup>Centre for Population Health Research, Faculty of Health Sciences, Curtin University

5A.1

#### OBJECTIVES

Explore the utilisation of Medicare Benefits Schedule (MBS) CT in Australia and evaluate the risk burden of subsequent radiation exposure.

#### METHODS

A retrospective cohort design using MBS records of CT scans in Australia (2006/07 to 2011/12), Australian Bureau of Statistics population data, and CT dosimetry data. Analysis included MBS CT scan numbers, crude rates, Poisson regression models for adjusted relative risk and estimated number of incident cancer and related mortality (using Biological Effects of Ionising Radiation VII Phase 2 lifetime attributable risk gender and age specific coefficients).

#### LESSONS LEARNED

MBS CT scans numbers and rates increased 136% and 127% respectively from 2006/07 to 2011/12. Only patients aged 0–4 years did not present an increase in CT scanning rates across the study period. The adjusted likelihood of females being scanned was 111% of males. Head, abdomen/pelvis and spine were the most likely types of MBS CT scan. Females were attributed 61% of the mean incident cancers and mean cancer related mortality from 55% of scans performed. Patients 15–44 years were attributed 37% of mean incident cancers and 30% of mean cancer related mortality from 26% of CT scans.

#### IMPLICATIONS

Despite competing technologies emerging, with the potential to reduce radiation dose, our study noted persistent increasing CT utilisation in Australia. The expansion of CT use has exposed higher risk patients, younger adults and females, to ionising radiation. Understanding utilisation patterns and risk is essential to inform policy to maximise clinical efficacy, safety and cost-effectiveness.

### Evaluate and Optimise: Using Routine Data to Improve Services for High Risk Surgical Patients

*Clarabelle Pham*<sup>1</sup>, *Katy Gibb*<sup>2</sup>, *John Field*<sup>3</sup>, *Jodi Gray*<sup>1</sup>, *Robert Fitridge*<sup>4</sup>, *Villis Marshall*<sup>2</sup>, *Jonathan Karnon*<sup>1</sup>

<sup>1</sup>University of Adelaide; <sup>2</sup>Royal Adelaide Hospital, Adelaide; <sup>3</sup>John Field Consulting, Adelaide; <sup>4</sup>Queen Elizabeth Hospital, Adelaide

5A.2

#### OBJECTIVES

To evaluate the costs and consequences of a pre-operative physician-led clinic for high risk elective surgical patients, and to identify an optimised referral pathway to the clinic.

#### METHODS

All patients placed on the waiting list for one of six key procedures (hip and knee replacements, head and neck cancer, colostomy, abdominal aortic aneurysm, and transurethral resection of the prostate) at the Royal Adelaide Hospital, July 2004 to June 2011 were identified. Data sources included coded discharge and costing data for all inpatient admissions, pathology reports, pre-admission patient questionnaires, and outpatient clinic appointments. The propensity for a patient to be referred to the high risk clinic was estimated, which informed propensity weighted regression analyses of a range of costs and consequences, including likelihood of cancellation before and on the day of surgery, length of stay, complications, related readmissions, and inpatient and outpatient costs.

#### LESSONS LEARNED

The positive consequences of the high risk clinic appear to outweigh small increases in total costs. Capacity to benefit varies according to the form and number of modifiable co-morbidities experienced by patients, as well as the severity of the planned surgical procedure.

## IMPLICATIONS

Referral to the high risk clinic is currently made on an ad hoc basis, which results in the non-systematic allocation of patients to a finite resource. Alongside information on clinic capacity and numbers of presenting patients, the analysis results will be discussed with surgeons and registrars to define an appropriate and explicit referral pathway that will be implemented and evaluated.

## Development of an Ambulance Quality Improvement Program

*Karen Smith<sup>1,2,3</sup>, Bill Barger<sup>1</sup>, Salman Sabir<sup>1</sup>*

<sup>1</sup>Ambulance Victoria; <sup>2</sup>Monash University; <sup>3</sup>University of Western Australia

### 5A.3

#### OBJECTIVES

Better pre-hospital care can lead to better population health and reduce acute health care costs both pre and in hospital. Ambulance Victoria (AV) has developed a comprehensive quality improvement program aimed at improving patient safety and outcomes.

#### METHODS

The implementation of VACIS, an in-field electronic patient care record has facilitated the collection of data. Using data filters key patient groups are identified for inclusion for benchmarking against clinical quality indicators (CIs) and for review via limited occurrence screening (LOS). LOS is a continuous process of retrospective screening and review of patient medical records to detect adverse patient occurrences. Histories are extracted based on the presence of one or more defined screening criteria, and reviewed by clinicians for the presence of an adverse event. Categories for LOS are chosen based on areas of potential risk and not on the assumption that there is anything wrong with the management of these cases.

#### LESSONS LEARNED

- CIs have been developed for cardiac arrest patients, severe pain patients, respiratory distress patients, stroke and major trauma patients
- LOS categories have been developed for key groups (e.g patients who are not transported and are re-attended in 24 hours, patients who are either defibrillated, intubated, die in AV care or have decompression of tension pneumothorax. Deviations in patient care are allocated a variation level with appropriate actions.

#### IMPLICATIONS

CIs and LOS outcomes for key patient groups are monitored on a quarterly basis and reported widely. The program has resulted in significant improvements in patient outcomes and changes to clinical practice.

## Collaboration Between Researchers and Policy Makers to Improve Patient Safety and Quality: Evaluating Bedside Clinical Handover Involving Patients

*Diana Slade<sup>1</sup>, Suzanne Eggins<sup>1</sup>, Jacqui Bear<sup>2</sup>, Clare Gallagher<sup>2</sup>, Lyn O'Connell<sup>2</sup>*

<sup>1</sup>Faculty of Arts and Social Sciences, University of Technology Sydney; <sup>2</sup>ACT Health

### 5A.4

#### OBJECTIVES

Australian research investigating the causes of critical incidents in hospitals found communication errors were responsible for twice as many deaths than clinical inadequacy.

This project assessed the quality of communication between staff during shift to shift handovers at the bedside following a recent policy change requiring bedside handover involving patients.

#### METHODS

Linguists from the UTS research team observed and audio/video recorded handovers for patients moving from ED, to the Medical Assessment Planning Unit then to their next destination. Staff interviews assessed views on handover. Transcripts were analysed to assess the quality of the communication.

Following analysis of initial recording and interviews a training program was developed for staff and implemented. Training included video simulations of actual handovers by actors and role play. The impact of this was then evaluated through further observations and recording of handovers as well as staff interviews.

#### LESSONS LEARNED

Bedside handovers were initially inconsistent and ineffectively involved patients. Local areas had been offered limited support make a significant change to practice; involving patients and families in handover. Training improved the quality of handovers and increased acceptance of the value of involving patients.

#### IMPLICATIONS

Policy makers need to critically assess the support needed to implement changes in practice and find ways to resource them. Effective handover requires systematic tools and protocols and training on their use, particularly when new tools and processes, such as bedside handover involving patients, are implemented. Policy makers need to recognise this and plan for it as part of policy implementation.

## Using Patient Journey Mapping Tools to Improve Communication, Coordination and Transfer of Care Within and Between Health Services

*Janet Kelly<sup>1</sup>, Brita Pekarsky<sup>2</sup>, Judith Dwyer<sup>1</sup>, Eileen Willis<sup>1</sup>, Charlotte de Crespigny<sup>3</sup>*

<sup>1</sup>Flinders University; <sup>2</sup>Baker IDI Heart & Diabetes Institute; <sup>3</sup>University of Adelaide

### 5A.5

#### OBJECTIVES

To test patient journey mapping tools in order to identify specific gaps and effective strategies for quality and coordination of care across diverse settings. These tools, originally developed with Indigenous patients, may be used for with patients experiencing any illness, involving any health care setting or admission type.

#### METHODS

Researchers worked alongside clinicians, managers and educators in city, country, primary, tertiary, Indigenous and mainstream health to adapt the tools to suit their setting and priorities. Actual patient journeys were mapped for clinical audits, service planning and reflective practice.

#### LESSONS LEARNED

The process of discussing, adapting and using the tools was as important as the resulting data. Specific gaps in care, communication and service provision within and between services became apparent as staff worked with the tools, with possible changes to service delivery, clinical handover and transfer of care, care practices and guiding policies identified. The inclusion of multiple perspectives and a pragmatic no blame approach were crucial elements for engagement.

#### IMPLICATIONS

While staff and services strive to provide high quality care, coordination and communication gaps continue to impact adversely on patient experiences and health outcomes. Usually, no single person or service is responsible for supporting or coordinating patients and their families through multiple health care settings, and the complexity of patient journeys within and between services remains hidden and unrecorded. The use of the tools in clinical settings made visible the entire patient journey, the roles and impact of staff members and services, the effectiveness of communication and coordination, and strategies for improved care.

## Lean Thinking in New Zealand Emergency Departments

*Gareth H. Rees*

*Centre for Health Systems, University of Otago*

### 5A.6

#### OBJECTIVES

This paper describes and contrasts the implementation of Lean Thinking — a quality methodology that emphasises waste reduction and performing at higher levels of productivity with the same or less resources — into New Zealand's healthcare system. Based on research conducted in 2010 in three different hospital Emergency Departments (EDs), in three different DHBs, this study identifies the range of approaches undertaken and results attained.



## METHODS

As the field is relatively new, three literature-based exemplar cases were developed to provide an analysis framework to analyse the NZ research sites, which had activities, teamwork, leadership and sustainability as its core themes. Each research site's case was developed from primary data gathered through interviews, augmented by secondary data from project reports, DHB websites and media stories. The cases were subject to scrutiny using structured content analysis, facilitated by NVivo software.

## LESSONS LEARNED

The results highlight the benefits of a supportive quality focussed organisational culture, cross functional teams and executive management involvement as enablers. The study found that an independent project approach, while providing significant localised improvement is less than optimal to synchronise an ED's improvement results through to the wider hospital. Further, work intensification and workplace resistance were also evident in varying levels within the sites.

## IMPLICATIONS

The study, while reiterating the problems of introducing quality methods from other domains into healthcare, also localises the experience into a New Zealand context and reinforces that organisational preparedness as a significant factor for an organisation's quality maturity.

## 5B Chronic Care

10:30-12:10, Wednesday 4 December 2013, Featherston  
Chair: Marion Haas

### The NSW Chronic Disease Management Program (NSW CDMP) — 'Connecting Care in the Community': An Evaluation of a New Collaborative Model of Care Implemented During a Time of Health Restructuring

*Julie McDonald, Gawaine Powell Davies*

*Centre for Primary Health Care and Equity (CPHCE), University of New South Wales*

#### 5B.1

## OBJECTIVES

The NSW CDMP aims to improve the coordination of care for people with chronic conditions who are at risk of avoidable and unplanned hospitalisation. The Program is being rolled out through Local Health Districts (LHD) across NSW. Core elements include: enrolment, comprehensive assessment, shared care planning, care coordination, self-management support, and monitoring. LHDs are encouraged to work in partnership with Medicare Locals (ML) and general practice. The objective of this paper is to present the mid-term results of the process evaluation and to identify emerging model of care configurations.

## METHODS

Qualitative methods involving an early and late scan of all LHD programs and mid-term in-depth case studies of seven programs. Data collection includes semi-structured interviews with internal and external stakeholders and service providers.

## LESSONS LEARNED

National and state health reforms and restructuring has influenced form and uptake of the Program. There is considerable diversity in models across LHDs reflecting local needs, priorities and existing infrastructure. Several configurations can be identified that are distinguished according to management and monitoring structures, models of care, and collaboration with ML. The presence of enabling infrastructure has determined the phase and scale of implementation and locating designated care coordinators in both LHDs and MLs supports coordination within and across sectors.

## IMPLICATIONS

This evaluation highlights the need to see such projects as developmental, taking history and context into account and expecting variation across sites; to develop essential infrastructure to support implementation; and the value of process evaluation to reflect and guide the process.

### Diagnosis of Chronic Obstructive Pulmonary Disease in the Face of Multi-Morbidity: Patients' Perspectives

*Sameera Ansari, Hassan Hosseinzadeh, Sarah Dennis, Nicholas Zwar*  
*University of New South Wales, Sydney*

#### 5B.2

## OBJECTIVES

A major cause of morbidity and mortality worldwide, COPD often occurs in the presence of multiple other related or unrelated health conditions, which may have implications for experience and management of the disease — a phenomenon known as multi-morbidity. Little research has been done exploring patients' perspectives of COPD and even less is known about impact of comorbidities on the disease. This qualitative study was conducted to understand the physical, psychological and social impact of a new diagnosis of COPD in the context of multi-morbidity.

## METHODS

Participants were diagnosed with COPD during a Sydney-based randomised control trial of case finding and early intervention in COPD. From 254 participants in the trial, a sample was determined for the qualitative study using maximum variation sampling based on age, gender, socio-economic status, geographic location and severity of COPD. Data was collected via semi-structured interviews and recorded for transcription purposes.

## LESSONS LEARNED

In spite of accepting the diagnosis, most participants had difficulty recognising the significance and incorporating COPD into their lives. Self-management capacity and ability to use healthcare services were challenged by limited understanding of COPD and its implications, complications presented by comorbidities and financial barriers (eg. cost of consulting a specialist). In many cases, the salience of another chronic condition (eg. diabetes) outweighed that of COPD.

## IMPLICATIONS

The findings provide an insight into how patients prioritise health conditions, highlighting the importance of understanding and incorporating their perspectives through patient-centered practice, tailored education and development of personalised care plans for COPD patients with multi-morbidity.

### Different Perspectives on the Provision of Chronic Illness Care Within the Southern Region: The Views of Patients and Primary Health Providers

*Fiona Doolan-Noble, Robin Gauld, Debra L. Waters, Sophia Leon de la Barra*

*Centre for Health Systems, Department of Preventive and Social Medicine, University of Otago*

#### 5B.3

## OBJECTIVES

To study the organisation and coordination of chronic illness care within the Southern region from the perspective of patients with multimorbid disease enrolled in Care Plus as well as primary health care professionals (PHCPs).

## METHODS

The New Zealand modified version of the Patient Assessment of Chronic Illness Care (M-PACIC) was utilised. This was mailed to all 637 primary health care professionals (PHCPs) in the region, and a random sample of 500 Care Plus patients.

## LESSONS LEARNED

PHCPs in the Southern Region consider they provide the components of chronic care management described in the PACIC some or most of the time, with patients considering they receive these elements, a little or some of the time. Numerous barriers in provision of chronic illness care within the current New Zealand primary care setting were cited, however, facilitators also exist.

## IMPLICATIONS

Multimorbidity is the new norm in individuals with long-term conditions and the current disease specific focus of health care is unhelpful in this patient group. If primary care in the region is not supported to find and implement feasible approaches to better meeting the needs of this group, both inpatient and ambulatory care services regionally will be put under even greater pressure.

## Implementing a New Model of Care: Translating Gestational Diabetes Mellitus Medical Nutrition Therapy Guidelines into Practice

Shelley A. Wilkinson<sup>1,2,3</sup>, Sally McCray<sup>4</sup>, Michael Beckmann<sup>3,5</sup>, Annette Parry<sup>1</sup>, H. David McIntyre<sup>3,6</sup>

<sup>1</sup>Mater Mothers' Hospital, Brisbane; <sup>2</sup>NHMRC TRIP Research Fellow; <sup>3</sup>Mater Research, Mothers' & Babies Theme; <sup>4</sup>Nutrition and Dietetics, Mater Health Services, Brisbane; <sup>5</sup>Obstetrics and Gynaecology, Mater Mothers' Hospital, Brisbane; <sup>6</sup>Obstetric Medicine, Mater Mothers' Hospital, Brisbane

5B.4

### OBJECTIVES

American Gestational Diabetes Mellitus (GDM) Nutrition Practice Guidelines (NPG) include a minimum of 4 Dietitian appointments; no Australian GDM NPGs exist. This paper describes the development, implementation and evaluation of a dietetic model of care (MOC) based on American NPGs in Brisbane's Mater Mothers' Hospital's GDM clinic.

### METHODS

This project evaluates outcomes for 9 months prior to and following implementation of the MOC amongst women and clinic staff. One month between the phases was allocated for 'integration'.

A systematic barriers and enablers analysis was undertaken. Data sources included routinely collected hospital data, clinic observation, and staff surveys. Barriers were categorised into Domains from the Theoretical Domains Framework. Evidence-based interventions included staff training, audit and feedback, engagement of clinical champions, sourcing resources, a clinical pathway and women's engagement for service planning.

Primary outcomes are uptake of the new dietetic schedule (process) and requirement for GDM pharmacotherapy (clinical). Final data collection will occur September 2013.

### LESSONS LEARNED

Pre-intervention, only 8% of the 175 women with GDM received  $\geq 1$  dietetic follow-up appointment. After 2 months of the new MOC ( $n=75$  women), 64%, 40%, and 10% have received 1, 2 and 3 follow up appointments.

MOC 'integration' required four months, rather than one; this slower than expected process could have been overcome by wider clinician and management engagement.

### IMPLICATIONS

Dissemination of guidelines alone or awareness of an issue does not change practice. Systematic, theory-driven assessment of influencing factors and implementation and evaluation design within a multi-disciplinary team, including consumer engagement, is required to successfully change a MOC.

## Improving Integrated Primary-Secondary Health Care: A New Model of Diabetes Care Evaluated Using a Pragmatic Mixed-Methods Non-Inferiority Randomised Controlled Trial

Jenny Zhang<sup>1</sup>, Letitia Burridge<sup>1</sup>, Maria Donald<sup>1</sup>, Anthony W. Russell<sup>1,2</sup>, Claire L. Jackson<sup>1</sup>

<sup>1</sup>Centre of Research Excellence in Quality & Safety in Integrated Primary-Secondary Care, School of Medicine, University of Queensland; <sup>2</sup>Princess Alexandra Hospital, Ipswich Road, Woolloongabba, Queensland

5B.5

### OBJECTIVES

To apply health system and health service delivery elements that enable integration between primary and secondary care in a new model of care for people with complex type 2 diabetes. This implementation research uses a pragmatic RCT to evaluate the effectiveness of the model.

### METHODS

A service integration framework guides implementation and includes health system elements such as governance and professional development and service delivery aspects such as teamwork, communication and self-management support. The model of care is provided by a multidisciplinary team incorporating a GP with special interests supported by an endocrinologist and diabetes educator within a community-based complex diabetes service. Eligible patients referred to hospital-outpatient departments by their GP are randomised to either

the complex diabetes service (intervention) or the hospital (usual care). HbA1c is the primary outcome of interest. Patient-reported outcomes include quality of life and satisfaction with care. Qualitative methods are used to measure patient-assessed quality of care and provider perceptions. Data are collected at baseline, 6 and 12 months from 450 patients.

### LESSONS LEARNED

To date 90 patients have been recruited. Lessons learned focus on the challenges around planning and setting up such a complex intervention and its evaluation within a health service delivery setting. The building of strong partnerships between researchers, Medicare Local and local hospital network has been critical factors in this implementation research.

### IMPLICATIONS

Our study will progress international learning in chronic disease management. If effective for diabetes it could be applied to other chronic conditions and extended nation-wide for integrated care delivery in the future.

## A Tale of Two Services

*Giovanni Tiso*

5B.6

This presentation is drawn on the user experience of having two children diagnosed at three years of age, one with autism, the other with type 1 diabetes. This has caused our family to receive two diametrically different kinds of services from the same local health authorities: unresponsive, ineffective and insensitive in the case of our daughter's autism; prompt, sensitive and highly pro-active in the case of our son's diabetes. One would be tempted to ascribe these differences to the fundamentally different nature of the two conditions: one, developmental and requiring complex psychological and educational form of support; the other, physiological and suited to a more straightforward medical model. However it is my contention that the philosophical approach employed by our district health board in equipping families to deal with the medical needs of a young diabetic — an approach that is grounded on the principle of enabling full social participation — offers an ideal model for radically rethinking the support of children with autism.

## 5C General Practice in Australia, New Zealand and Canada: Some Findings from the QUALICOPC Study

10:30-12:10, Wednesday 4 December 2013, Rosanna

Chair: Rosalie Viney

### An Introduction to the QUALICOPC Study

5C.1

The QUALICOPC (Quality and Costs of Primary Care in Europe) study aims to analyse and compare how primary health care systems in 35 countries perform in terms of quality, costs and equity. Australia, New Zealand and Canada are participating in the study along with 32 European countries. The study includes surveys of general practitioners and their patients. Topics covered in these surveys include: the practices and practice staff, working environment, the quality and comprehensiveness of services, use of medical records, access to related services, interaction with other health care providers, access to services by patients, and patients' experiences of GP consultations. In this session we present some preliminary results from the surveys from each of the three countries, along with some cross-country comparisons. We also discuss some of the issues arising from the data collection process.

### A Profile of General Practice in New Zealand

*Toni Ashton, Rob McNeill, Peter Carswell, Tim Kenealy, Tim Tenbessel*  
*School of Population Health, University of Auckland*

5C.2

### OBJECTIVES

New Zealand is one of 34 countries participating in the Quality and Cost of Primary Care (QUALICOPC) study which aims to evaluate different models of primary care against the criteria of quality, equity and costs. The aim of this paper is to provide a profile of general practice in New Zealand as reported by general practitioners (GPs) and their patients. This information will be fed into a multi-level analysis to meet the wider aims of QUALICOPC study.

## METHODS

1371 GPs were invited to complete a questionnaire covering a range of topics about their practice and work. Each participating GP also distributed questionnaires to their patients on a single working day. Descriptive statistics are used to build a profile of GPs, their practices and their work.

## LESSONS LEARNED

Questionnaires were completed by 168 GPs and 1152 patients. 76% of respondent GPs described themselves as self-employed: the remainder were salaried. All respondents had a receptionist, 98% a practice nurse and 74% a practice manager. Other results included hours of work, access to equipment and facilities, use of clinical guidelines and chronic disease management programmes and patients' experiences.

## IMPLICATIONS

Our findings suggest that access and quality of care is relatively good as reported by both GPs and their patients. Further statistical analysis is required to understand how general practice in New Zealand compares with that of other countries participating in the QUALICOPC study.

## Recruiting General Practitioners for Surveys: Lessons Learned from the Australian Arm of the International QUALICOPC Survey

*Anne Parkinson<sup>1</sup>, Louisa Jorm<sup>2,3</sup>, Kirsty Douglas<sup>4</sup>, Alison Gee<sup>1</sup>, Ginny Sargent<sup>1,5</sup>, Sanja Lujic<sup>6</sup>, Ian McRae<sup>1</sup>*

<sup>1</sup>Australian Primary Health Care Research Institute, Australian National University; <sup>2</sup>School of Medicine, University of Western Sydney; <sup>3</sup>Sax Institute; <sup>4</sup>Australian National University Medical School; <sup>5</sup>National Centre for Epidemiology & Population Health, Australian National University; <sup>6</sup>Centre for Health Research, University of Western Sydney

5C.3

## OBJECTIVES

To report on response patterns to a recent survey of Australian GPs about primary care where initial response rates were poor and various strategies were employed to improve recruitment, and to identify factors that facilitated or hampered GP recruitment.

## METHODS

The response rate for a mailed survey sent to a sample of Australian GPs was compared with the response rate of GPs invited to participate in the same survey via a professional network. Reasons GPs cited for non-participation were examined by drawing on informal discussions held with 20 GPs who declined to participate, managers of seven university based professional networks that assisted with recruitment and managers of networks which chose not to participate.

## LESSONS LEARNED

The learnings from our endeavours in conducting a national mail based survey of GPs demonstrate the value of an approach coming from a known and trusted network of professionals to endorse the research and the value of explicit compensation payment.

## IMPLICATIONS

Because GPs are busy and face large numbers of requests to participate in research activities, it is difficult to obtain high response rates. Low response rates threaten external validity, which is a limitation for descriptive survey research that aims to generate prevalence estimates.

## Who Gets Preventative Advice in General Practice? Roles of Patient and Practice Factors

*Louisa Jorm<sup>1</sup>, Sanja Lujic<sup>1</sup>, Ian McRae<sup>2</sup>, Kirsty Douglas<sup>2</sup>*

<sup>1</sup>University of Western Sydney; <sup>2</sup>Australian National University

5C.4

## OBJECTIVES

To quantify how receipt of preventative advice in general practice varies according to patient and practice factors.

## METHODS

Analysis of self-reported questionnaire data for GPs (n=133) and patients (n=1058) from the Australian arm of an international study (QUALICOPC). Estimation of odds ratios and intra-class correlation coefficients (ICC) for factors that predicted patients receiving advice about how to stay healthy from a GP in that practice in the past 12 months, using multilevel logistic regression. Patient factors included age, sex, country of birth, education, self-rated health, chronic conditions, having own doctor and frequency of GP visits. Practice factors included

location, business model, numbers of GPs and patients, bulk-billing and electronic reminder systems.

## LESSONS LEARNED

Overall, 74.8% of patients reported receiving advice about how to stay healthy, with significant variation between practices (ICC=5.9%, p=0.02). Patients who were aged 40+ years and with chronic conditions were significantly more likely to get advice, while female patients and those who did not have their own doctor were significantly less likely to get advice. Patient characteristics explained 28% of the variation between practices. Among practice characteristics, business model and number of GPs explained most variation (24% and 37%, respectively). In combination, the patient and practice factors explained 99% of the variation between practices.

## IMPLICATIONS

There is a significant variation in preventative advice provision between GP practices and — within practices — in who gets this advice. Younger patients, female patients and those without a regular GP may be missing out on advice from which they would benefit.

## A Profile of General Practice in Australia: Evidence from the QUALICOPC Australia Survey

*Ian McRae<sup>1</sup>, Anne Parkinson<sup>1</sup>, Louisa Jorm<sup>2</sup>, Sanja Lujic<sup>2</sup>, Kirsty Douglas<sup>3</sup>*

<sup>1</sup>Australian Primary Health Care Research Institute, Australian National University; <sup>2</sup>Centre for Health Research, University of Western Sydney; <sup>3</sup>Medical School, Australian National University

5C.5

## OBJECTIVES

Australia is one of 35 countries (including New Zealand) participating in the Quality and Cost of Primary Care (QUALICOPC) study which aims to evaluate primary care against the criteria of quality, equity and costs. This paper explores how this study adds to existing information on general practice in Australia as reported by general practitioners (GPs) and their patients.

## METHODS

Self-reported data from 133 GPs and 1,197 of their patients from an Australian arm of the QUALICOPC Study was used to examine patient experiences, GP attitudes and the characteristics of GPs and their practices (including workload, business model, infrastructure and resources).

## LESSONS LEARNED

While the sample frame used and the response biases in Australia led to relatively senior doctors responding from more established practices, findings were generally very similar to those from New Zealand. This survey contributes to information on patient waiting times, practice equipment, access to diagnostic services, GP patient interactions about health risks and many other issues, from both GP and patient perspectives.

## IMPLICATIONS

QUALICOPC provides a snapshot of general practice in Australia which is not available from other sources. Multi-level analyses are underway to explore how practice factors contribute to patient experiences. Multilevel analyses of the data from all 35 participating countries will allow us understand how features of the Australian health system contribute to GP and patient experiences, and how the quality, equity and costs of our GP care compare with that in other countries.

## QUALICO-PC in Canada-Recruitment, Responses, and Initial Cross Country Comparison with Australia and New Zealand

*Sabrina T. Wong<sup>1</sup>, Walter Wodchis<sup>2</sup>, William Hogg<sup>3</sup>, Alan Katz<sup>4</sup>, Tim Cooke<sup>5</sup>, Markus Lahtinen<sup>5</sup>, Leena Wu<sup>1</sup>, QUALICO-PC Canadian Working group*

<sup>1</sup>School of Nursing and Centre for Health Services and Policy Research, University of British Columbia; <sup>2</sup>Institute of Health Policy, Management and Evaluation, University of Toronto; <sup>3</sup>Department of Family Medicine, Faculty of Medicine, University of Ottawa; <sup>4</sup>Manitoba Centre for Health Policy, University of Manitoba; <sup>5</sup>Health Quality Council of Alberta

5C.6

## BACKGROUND

Performance measurement in primary care (PC) can be used to evaluate

and identify opportunities for improvement at the practice and system level. QUALICO PC evaluates the quality, equity and costs of primary care systems across 33 mostly European countries but also includes Canada, Australia, and New Zealand.

#### OBJECTIVES

To examine: What makes up strong PC systems? and What effects do strong PC systems have on health system performance? We report on preliminary results from Canada.

#### METHODS

Design — Descriptive cross-sectional surveys of practices, providers, and patients. All surveys are linked at the practice level.

Setting — All 10 Canadian provinces participated. In most provinces, letters of invitation were sent to PC physicians through provincial colleges of family practice or medical associations.

Patients or Other Participants — One provider per practice participated. Patients (n=10) from their participating provider were approached. Patients were ≥ 18–90 years old, read English or French, and were not cognitively impaired. Providers administered the survey on a day representative of their practice.

Intervention/Instrument — Four surveys: 1 practice, 1 provider, and 10 patient (n=9 patient experiences, n=1 patient values) surveys.

Outcome Measures — Practice and provider characteristics (funding, access); Patient reported quality of care (continuity, interpersonal communication).

#### RESULTS

Data collection will be complete by Oct 2013 on >800 practice and providers and >8,000 patients. Similar to other countries, we experienced recruitment challenges and low overall response rates. Preliminary results (>200 practices) suggest a panel size of 1,450 patients; 50% of practices have extended hours of service 4 times/week but 54% are not open on weekends. Almost 2/3 of patients (n=1156) reported different health professionals work together effectively and 87% of patients see their regular doctor.

#### CONCLUSIONS

QUALICO-PC will allow for some comparative performance across Canadian provinces and permit comparisons across countries.

## 5D Indigenous

10:30-12:10, Wednesday 4 December 2013, Wellington

Chair: Samantha Togni

### Identifying Elements of a Comprehensive Quality Framework in Aboriginal Community Controlled Health Services: A Qualitative Study by an Australian Indigenous Research Partnership

*Beverly Sibthorpe*<sup>1,2</sup>, *Dan McAullay*<sup>1,2</sup>, *Karen Gardner*<sup>2</sup>, *Michelle Dowden*<sup>1</sup>, *Donisha Duff*<sup>2</sup>, *Mier Chan*<sup>2</sup>

<sup>1</sup>Aboriginal Health Council of Western Australia; <sup>2</sup>Australian Primary Health Care Research Institute

#### 5D.1

#### OBJECTIVES

Accreditation, Continuous Quality Improvement (CQI) and performance reporting processes are key strategies for improving performance in health service delivery for Aboriginal and Torres Strait Islander Australians. These strategies have different underlying philosophies and use different methods and tools to stimulate improvements in care. Although evidence from systematic reviews suggests these can be effective, how they relate to each other in practice is unclear.

#### METHODS

Accreditation standards, key national performance indicators and CQI measurement were mapped against the Framework for Performance Assessment in Primary Health Care (FPA\_PHC) to investigate the relationships between them.

#### LESSONS LEARNED

ISO, QIC and AGPAL accreditation standards relate to improving Organisational Structures and Processes, identified at Level 2 of FPA\_PHC. ISO and QIC focus on organisational management, and AGPAL on service delivery management. QIC explicitly covers governance and community engagement while ISO does not. CQI and key performance indicators focus on improving Processes of Care and Intermediate Outcomes (Levels 3 and 4 of FPA\_PHC). The

different emphases of accountabilities across communities, clients, teams, professions, and funders are explored.

#### IMPLICATIONS

Together, ISO or QIC accreditation in conjunction with AGPAL accreditation and CQI provide the basis for a comprehensive and coherent quality improvement agenda in Aboriginal Community Controlled Health Services (ACCHSs), though CQI is yet to be embedded in everyday practice. There is a potential weakness in the popular ISO standards in the areas of governance and community engagement which are critical to ACCHS sustainability. The FPA\_PHC needs to be refined by splitting Level 2 into 2A (management) and 2B (service delivery).

### Improving Care for Indigenous and Other Underserved Minority Populations Using Continuous Quality Improvement: A Systematic Review by an Australian Indigenous Research Partnership

*Karen Gardner*<sup>1</sup>, *Mier Chan*<sup>1</sup>, *Beverly Sibthorpe*<sup>1,2</sup>, *Dan McAullay*<sup>1,2</sup>, *Michelle Dowden*<sup>2</sup>, *Ginny Sargent*<sup>3</sup>

<sup>1</sup>Australian Primary Health Care Research Institute; <sup>2</sup>Aboriginal Health Council of Western Australia; <sup>3</sup>National Centre for Epidemiology and Population Health

#### 5D.2

#### OBJECTIVES

Continuous Quality Improvement (CQI) has emerged in the past two decades as a method to improve quality of care in health services. However, there is a need to survey the evidence for the application of CQI in health services specifically targeting indigenous peoples or other underserved minorities, who bear a disproportionate burden of chronic disease.

#### METHODS

We conducted a systematic review of MEDLINE and the Cochrane Library to identify the international evidence for effectiveness of CQI in improving primary health care services for indigenous and other underserved minority populations. 557 articles were identified and reviewed in accordance with the PRISMA statement. Articles were not excluded based on research design.

#### LESSONS LEARNED

We identified 23 articles on six CQI programs in the USA and Australia focusing primarily on chronic disease care for Indigenous Australians, African-Americans, Hispanic-Americans, and Native Americans. Evidence from five programs targeting diabetes and asthma care is presented here. Nearly all diabetes and asthma programs found significant improvements in a number of care processes, but improvements in intermediate clinical outcomes were mixed and inconsistent. Programs which utilised strategies targeting change across multiple levels of health care tended to produce more clinical improvements.

#### IMPLICATIONS

CQI is a promising method for improving chronic disease care for indigenous and other underserved minority populations. Programs should consider strategies targeting multiple levels of change across the individual provider, health care team, health care organisation, and larger health system. More rigorous studies are required to ascertain the long-term effectiveness and implementation of CQI.

### How Did a Health Target Address Immunisation Inequities for Māori Children in New Zealand?

*Esther Willing*

*University of Auckland*

#### 5D.3

#### OBJECTIVES

When the New Zealand government introduced a health target for immunisation in 2007, it did not explicitly set out to address immunisation inequities for Māori children. Yet when the health target ended in July 2012, immunisation coverage for Māori children had increased dramatically and in some regions inequities had been eliminated. How did this change happen and what can we learn from this experience?

#### METHODS

This study involved two phases of semi-structured interviews with key informants from four case study District Health Boards. Interviews

explored how the immunisation health target was implemented at the local level and what District Health Boards did to improve immunisation coverage in their regions. Data was then coded and analysed using a thematic analysis approach.

#### LESSONS LEARNED

The health target focused attention on immunisation as a local issue and emphasised accountability for immunisation coverage within each level of the local health system. This required local health organisations to improve their systems and process for immunisation and ensure that all children, including Māori children, were given the opportunity to be immunised. Innovative initiatives such as opportunistic immunisations within secondary care settings and outreach services addressed barriers to access for Māori families.

#### IMPLICATIONS

The health target was set at such a level that District Health Boards needed to address long standing access issues for Māori children in order to achieve the immunisation health target. Health targets may be a useful policy tool for addressing health inequities in other areas.

### Best Practice at the Practice for Childhood Immunisations — How Can I Achieve Better Results in Less Time?

*Lynn Taylor, Catherine Poutasi, Nikki Turner*

*Immunisation Advisory Centre, Conectus, University of Auckland*

#### 5D.4

#### OBJECTIVES

To identify models of 'best practice' used by New Zealand general practices which have achieved high coverage rates and on-time childhood immunisations. This study focused on the ways that the high performing practices utilised effective internal systems & processes and their community networks to achieve high performance.

#### METHODS

Qualitative data was collected through face-to-face structured interviews with key member(s) of the practice team responsible for childhood immunisations. This presentation will focus on the key findings from four main areas: Pre-call, re-call and reminder activities; engaging local community support to facilitate connection with difficult to find children; creating an efficient system for opportunistic immunisations; and the use of the local Outreach Immunisation Service.

#### LESSONS LEARNED

Clear commonly consistent themes emerged. However, there was not one single model that fit all practices. Different 'models' seemed to work well for different communities. For example some elements of what worked for rural communities of predominantly 'high needs' populations were quite different from what worked well in the populations residing in affluent city suburbs.

#### IMPLICATIONS

The successful models will be presented, also specific characteristics of the practices that found these models to work well for them and their communities. General Practices, Primary Health Organisations and District Health Boards can gain value from considering the examples of successful models and asking the question — What are the specific targeted approaches that work best to create a high functioning general practice working well in its specific local community to maximise efficiency and effectiveness of delivery.

### Social Health Issues Affecting Aboriginal Women's Health in Pregnancy: Implications for Antenatal Care

*Donna Weetra, Stephanie Brown,*

*Aboriginal Families Study Collaborative Group*

*Healthy Mothers Healthy Families Research Group, Murdoch Childrens Research Institute*

#### 5D.5

#### OBJECTIVES

To determine the frequency and types of social health issues experienced by Aboriginal women and families during pregnancy and consider implications for antenatal care.

#### METHODS

Population-based study of women giving birth to an Aboriginal baby in South Australia between July 2011 – June 2013 conducted in partnership with the Aboriginal Health Council of South Australia.

Women living in metropolitan, regional and remote communities in South Australia completed a booklet-based interview with an Aboriginal research interviewer at 4–12 months postpartum.

#### LESSONS LEARNED

Of the first 130 participants, 69 (52%) experienced three or more stressful life events or social health issues in pregnancy, and 31 (24%) experienced 5-8 issues. Commonly reported experiences included: death of a family member/friend (42%); housing problems (37%); left home because of family argument (21%); pushed, shoved or assaulted (18%). Young women experienced greater social adversity: 74% of women under 20 years reported three or more social issues during pregnancy, compared with 49% of women aged  $\geq 25$  years. Women living in rural and remote areas of South Australia experienced fewer social issues than women living in urban locations. 78% of women had a first pregnancy check-up at  $\leq 13$  weeks' gestation. There was no significant difference in timing of first antenatal visit associated with social adversity.

#### IMPLICATIONS

Antenatal care provides a window of opportunity to address social determinants of poor maternal and child health outcomes. The case for a public health approach to antenatal care for Aboriginal families is compelling.

### Does Aboriginal Involvement in Governance and Improve Equity in Accessing Health Services?

*Margaret Kelaher*

*CHPPE*

#### 5D.6

Providing increased voice to Indigenous people is seen as crucial to improving health equity but there is very little empirical research demonstrating this critical concept. In this paper how the engagement of Aboriginal people in local governance affects the implementation of health reform in Australia.

#### SAMPLE

The sample included responses from 188 people involved in regional governance in Aboriginal health. The health outcomes included data on Aboriginal health assessments from July 2008 – December 2012. The eligible population was 83190 in 2008/9, 856986 in 2009/10, 88256 in 2010/11 and 90903 2011/12.

#### RESULTS

Increased improvements in the uptake of health assessments were associated with stronger links between Aboriginal organisations working with other Aboriginal organisations and between non-Aboriginal organisations worked with Aboriginal organisations.

#### CONCLUSIONS

The findings suggest that the incorporation of Aboriginal organisations and community in regional planning may play an important role in improving health equity.

## Plenary Session 7

12:10-13:00, Wednesday 4 December 2013, Lambton 1-3

Chair: Jane Hall

### Did Anybody Ask the Patient? Consumer Engagement at the 'Sharp End'

*Karen Luxford*

*Patient Based Care, Clinical Excellence Commission, Sydney*

#### PL7.1

Working with the user or 'consumer' of services to improve service provision is a 'natural state of affairs' in many industries. Engaging consumers in identifying issues and helping improve quality is a much more recent development for health care services. This presentation will focus on patient and consumer engagement in improving safety and quality — where have we come from, why don't we do it and strategies for successful engagement to transform health care delivery. The presentation will consider partnership approaches to working together — including the 'sharp end' of safety and quality — and lessons from leading health care services.

## Posters Monday 2 December

Monday 2 December 2013,

### Geographical Variation in Incidence of Knee Arthroscopy for Patients with Osteoarthritis: A Population-Based Analysis of Victorian Hospital Separations Data

Megan Bohensky<sup>1</sup>, Anna Barker<sup>2</sup>, Renata Morello<sup>2</sup>, Richard De Steiger<sup>3</sup>, Alex Gorelik<sup>1</sup>, Caroline Brand<sup>1</sup>

<sup>1</sup>Melbourne EpiCentre, Department of Medicine, University of Melbourne; <sup>2</sup>Health Service Research Unit, Department of Epidemiology & Preventive Medicine, Monash University; <sup>3</sup>Epworth Private, Richmond

P1, Poster

#### OBJECTIVES

Research evidence has shown that arthroscopy for the treatment of knee OA has limited clinical benefit compared to conservative management. The aim of this study was to evaluate geographical variation in knee arthroscopy procedures for adults ( $\geq 25$  years) with osteoarthritis in Victoria, Australia.

#### METHODS

A retrospective, cross-sectional study of hospital separations involving an elective knee arthroscopy for patients with a diagnosis code indicating osteoarthritis (OA) using routinely collected hospital data from 1 July 2008 to 30 June 2009. Records were excluded if the arthroscopy involved a ligament reconstruction.

#### LESSONS LEARNED

We identified 9620 arthroscopic procedures meeting the inclusion criteria. There were 5500 (57.2%) admissions where the primary diagnosis was knee OA and 3510 (36.5%) indicating a mechanical derangement. Regional differences were noted in the crude and age- and sex-stratified incidence rates of arthroscopies. Aligning procedure rates with the state average rates would result in 189 less procedures per year (95% CI: +2 to -377). The largest difference between the observed and expected procedure numbers was in the Grampians, where alignment with the state averages would result in 337 less procedures per year (95% CI: -295 to -376).

#### IMPLICATIONS

We identified considerable geographical variation in arthroscopies for people with OA across the Victorian health service regions. Further investigation is needed to understand whether this variation is a reflection of differences in prevalence of OA and its risk factors, patient preferences or surgical practices in the regions.

### The Virtual Aged Care System: System Integration in an Age of Big Data

Hamish Robertson<sup>1</sup>, Nick Nicholas<sup>2</sup>, Tuly Rosenfeld<sup>3</sup>, Andrew Georgiou<sup>1</sup>, Julie Johnson<sup>1</sup>, Joanne Travaglia<sup>3</sup>

<sup>1</sup>Australian Institute of Health Innovation, University of New South Wales, Sydney; <sup>2</sup>The Demographer's Workshop, Sydney; <sup>3</sup>Faculty of Medicine, University of New South Wales, Sydney

P2, Poster

#### OBJECTIVES

The purpose of this paper is to present a virtual spatial model of the aged care system in Australia and to show how it can benefit current and future aged care policy, planning and responses.

#### METHODS

The methods utilised include a system dynamics model for exploring population ageing and disease scenarios, especially dementia and its sub-types. This is linked to a geographic information systems (GIS) software package to permit spatial mapping and analysis techniques to be applied. Finally, selected scenarios are exported to Google Earth™ to support visual access and exploration. This format permits users to add their own data to scenarios.

#### LESSONS LEARNED

This approach has the potential to enhance current approaches to aged care planning and policy development. Simulation is well-established in health research but spatial simulation in aged care is still rare. This approach can act as a virtual scientific work-bench for health care research and policy development. Interventions can be modelled and assessed prior to costly implementation. Lastly, it provides an

environment in which multiple providers and advocates can collectively analyse their problems and concerns.

#### IMPLICATIONS

Ageing is increasingly recognised as the major demographic trend of this century. Population ageing poses significant challenges to health and social support policy, funding and systems as they are currently designed. Adaptation in an increasingly complex environment will be necessary to provide effective care and meet the changing needs of a diverse ageing population. Exploring the options virtually can help overcome issues of cost, complexity and local concerns systematically.

### Improving Computed Tomography (CT) Scanning Risk Estimates to Support Informed Risk: Benefit Decision Making

Rachael Moorin<sup>1,2</sup>, Rene Forsyth<sup>2</sup>, David A.J. Gibson<sup>2</sup>, Richard Fox<sup>2</sup>

<sup>1</sup>Curtin University; <sup>2</sup>University of Western Australia

P3, Poster

#### OBJECTIVES

Choosing to undertake a CT scan relies on balancing risk versus benefit. The risks associated with CT scanning are commonly presented to clinicians by broad anatomical location without consideration of the range of modern examinations (protocols). We assessed the range of radiation dose associated with modern CT scanning protocols and its effect on individual and population-based risk assessments.

#### METHODS

Technical data were used to calculate organ and whole body radiation dose for CT scans grouped by scanning protocol and anatomical area. Age and gender specific lifetime attributable risk was estimated using BEIR VII risk weights. Cancer incidence and mortality attributable to CT was then estimated by protocol and anatomical area.

#### LESSONS LEARNED

We identified 34 unique CT protocols across eight anatomical areas. The radiation dose for protocols grouped according to anatomical area varied widely. The largest variation was in abdominal protocols and the smallest variation in head protocols. This variation translated into large differences in the risk and burden of CT such that the cancer incidence and mortality estimated by protocols vs. anatomical area differed by a factor of two or greater.

#### IMPLICATIONS

Modern CT scanning produces a greater diversity of effective doses than much of the literature describes, where a lack of data for scanning protocols has produced estimates that do not reflect the range and complexity of modern CT practice. To allow clinicians and policy makers to make informed risk versus benefit decisions, the individual and population level risks associated with modern CT practices are essential.

### The MacGyver Effect in Health Services Research

Roshan Perera<sup>1</sup>, Helen Moriarty<sup>2</sup>

<sup>1</sup>Medical Education Unit, Department of the Dean, School of Medicine and Health Sciences, University of Otago, Wellington; <sup>2</sup>Department of Primary Health Care and General Practice, School of Medicine and Health Sciences, University of Otago, Wellington

P4, Poster

#### OBJECTIVES

Academic research processes inevitably converge with health service or health policy work streams during the conduct of health services research. However, blending research and public policy does not always work smoothly. In a manner similar to the television action hero MacGyver, health services researchers need to respond to the pressure of unpredictable demands and constrained time frames. The results are often both innovative and functional. Published in BMC Health Services Research 2011;11:226, this presentation identifies the MacGyver-type issues from New Zealand health services research.

#### METHODS

Issues arising during the conduct of four research projects positioned at the interface between public policy strategy and academia, facilitated identification of three main "MacGyver drivers". Each project provided the opportunity for a MacGyver-style approach to deal with sometimes contradictory pressures.

#### LESSONS LEARNED

Policy implementation imperatives may be a positive influence in

research, and may force researchers to consider alternatives and “out of the box” thinking to overcome dilemmas and bring the research to a successful conclusion.

#### IMPLICATIONS

The challenges inherent in conducting health services research are a result of opposing drivers between academic and health sector/public policy communities — the focus for academics on process, and sector/policy on outputs. The complexity and conflict that this engenders is not readily amenable to change. But in an environment where expediency is paramount, the MacGyver Effect may ultimately be the solution to the challenge of health services research. Each player needs to determine the extent to which he or she can live with the results.

#### If Quality is the Answer. . .What is the Question?

*Roshan Perera<sup>1</sup>, Helen Moriarty<sup>2</sup>*

<sup>1</sup>Medical Education Unit, Department of the Dean, School of Medicine and Health Sciences, University of Otago, Wellington; <sup>2</sup>Department of Primary Health Care and General Practice, School of Medicine and Health Sciences, University of Otago, Wellington

P5, Poster

#### OBJECTIVES

A focus on quality is vital in the delivery of care to patients. The use of quality and performance indicators has been adopted internationally at all levels of the health system to facilitate quality improvement, and is often seen as the answer to health system inadequacies. But does the use of indicators provide the appropriate questions to facilitate quality health care?

#### METHODS

This paper, recently published as an editorial in the International Journal for Quality in Health Care (IJQHC 2013;25(2):107–9,) explores the assumptions and expectations on which indicator use is based, and discusses the opportunities and pitfalls inherent in the use of health care indicators.

#### LESSONS LEARNED

Quality assessment tools offer a set of answers, but it is important to first identify the questions being asked, if these ‘answers’ are to be meaningful.

#### IMPLICATIONS

The use of indicators can bring about positive gains in health care quality. However, the foundation for successful change requires that the measurement of quality be approached in a rational and considered way.

#### Measuring Use of Research in Health Policy and Program Decision-Making

*Pauline Zardo<sup>1,2</sup>, Alex Collie<sup>1,2</sup>*

<sup>1</sup>Department of Epidemiology and Preventive Medicine, Monash University; <sup>2</sup>Institute for Safety, Compensation and Recovery Research, Monash University

P6, Poster

#### OBJECTIVES

Research funders are placing greater demands on academia to demonstrate the impacts of research, particularly in the area of health. Increasing decision-makers use of research is expected to improve the quality of health policy and program development, leading to improved health outcomes. However, very few studies have measured the extent of research use in Australian health policy environments. This research sought to measure frequency and purpose of research use in health policy and program decision-making, compared to use of other information types.

#### METHODS

Quantitative survey was undertaken with policy and program decision-makers (N=405) from two public health agencies in Victoria, Australia. Chi-square analysis was undertaken.

#### LESSONS LEARNED

Research evidence was used least frequently, internal data and reports was used most frequently. Research use differed within and between agencies. Role level, role type and education level was associated with research use. Research evidence was used mostly for conceptual purposes (to inform understanding of an issue). Interestingly, research was used for instrumental purposes (to directly inform policy and program action) more often than it was used for symbolic purposes (to

support an existing position), which is contrary to findings of previous studies.

#### IMPLICATIONS

Research translation intervention must be targeted to the information needs of the different agencies and different groups within the agencies. These findings suggest that role level and role type should be considered critical factors in investigations of research use in other health policy contexts. Importantly, these data provide baseline measures for assessment of research impact in this context.

#### Engaging in Community Conversation: A Means to Improving the Paramedic Student Clinical Placement Experience

*Helen Hickson<sup>1</sup>, Peter O'Meara<sup>1</sup>, Chris Huggins<sup>2</sup>*

<sup>1</sup>La Trobe University; <sup>2</sup>Monash University

P7, Poster

#### OBJECTIVES

The objective was to discover the issues related to paramedic student clinical placements and explore strategies to make improvements. This presentation focuses on the methodological aspects of using community conversations as a research approach.

#### METHODS

Community conversations are structured, inclusive conversations that bring together a group of people to engage in meaningful conversation, share knowledge and ideas, and discuss solutions to complex problems. Community conversation is part of the action research family and allows for deep meaning to be constructed around purposeful and directed questions.

This project included paramedics, ambulance service managers, paramedic students and paramedic educators, who gathered at a conference titled ‘Paramedic Education and Leadership’. There were three stages of community conversations conducted over three days, with participants spending a total of five hours discussing the key issues related to paramedic student clinical placements.

#### LESSONS LEARNED

Overall, the feedback from participants was positive and supported the concept of community conversations as a way for people to engage more deeply with the critical issues that affect their community. Participants noted that linking the community conversation with the conference meant that the right people were there, they were open and willing to listen to new ideas.

#### IMPLICATIONS

In a practice-based profession such as Paramedicine, student clinical education is a burgeoning issue for educators, ambulance services, clinical instructors and paramedic students. This approach provided an opportunity for direct interaction between educators, students, paramedics and managers to engage in conversation about a topic that they were all interested in.

#### What Would Macgyver Do? Refining the Australian Outpatient Classification When Robust Data is Scarce

*Alicia Cook*

*Independent Hospital Pricing Authority*

P8, Poster

#### OBJECTIVES

The Australian outpatient classification is known as Tier 2 Non-Admitted Services, and was developed and implemented in 2011 as part of major health reform in the funding arrangements for Australian public hospitals. At this time Tier 2 is the best known available classification for outpatient, or non-admitted services, however there is room to improve the correlation of the classification to better match the costs incurred when providing services to patients. A significant challenge facing the refinement of the Tier 2 classification is the availability and quality of data from public hospitals. Data is necessary to base classification improvements on evidence, however when quality data is not available, other innovative approaches to classification development are required.

#### METHODS

Using a range of qualitative and quantitative techniques, the Independent Hospital Pricing Authority considered all possible inputs which might improve the Tier 2 classification. This included trimming and analysing

existing data using several approaches. Considering the views expressed by stakeholders also played a significant part in the refinement of the classification.

#### LESSONS LEARNED

Refinement of the Tier 2 classification for 2014–15 is in progress, however initial findings suggest that combining a quantitative data analysis approach with qualitative consultation may identify the same classes which warrant refinement.

#### IMPLICATIONS

A lack of robust data may be a hurdle, but it does not prevent the improvement of classifications for activity based funding of public hospital services. The value of qualitative input from stakeholders should not be underestimated.

### Difficulties of Evaluating Consumer-Focused eHealth Technologies and Their Outcomes: A Literature Review by an Australian Indigenous Research Partnership

Carl Brusse<sup>1</sup>, Karen Gardner<sup>1</sup>, Dan McAullay<sup>1,2</sup>, Beverly Sibthorpe<sup>1,2</sup>, Mier Chan<sup>1</sup>, Michelle Dowden<sup>2</sup>

<sup>1</sup>Australian Primary Health Care Research Institute; <sup>2</sup>Aboriginal Health Council of Western Australia

P9, Poster

#### OBJECTIVES

The production of consumer-focused eHealth technologies is on the rise, with social media and mobile software products being popular new health promotion strategies for health authorities and other bodies. However the intended and actual effects of such activities are often unclear. The aim of this study is to provide a critical overview of evidence for the effectiveness of such solutions both in the Australian (Indigenous) context and internationally.

#### METHODS

We searched systematic reviews to identify studies examining the impact of eHealth technologies on care delivery, prevention and health promotion; and on self-management in smoking cessation, sexual health and otitis media. We also identified Australian health promotion and intervention programs with eHealth components.

#### LESSONS LEARNED

Evidence for the effectiveness of consumer eHealth solutions is sparse and mixed. Only a few exemplars of social media and mobile software evaluations are available, and robust evidence of effectiveness is still largely lacking. This can be attributed to several specific challenges over and above the usual ones for preventive health initiatives; including the problem of studying engagement with social media and mobile software under natural conditions, the conceptual fragmentation of eHealth research, and a mismatch between IT assessment modalities and health research norms.

#### IMPLICATIONS

While more evidence is required, so are innovative approaches to eHealth design, evaluation, and research. This may include a deeper engagement with IT expertise for embedding evaluation analytics, and a further reappraisal of research methods and the strictures for peer reviewed publication.

### Stepping into Research: An Allied Health Research Training Scheme

Katherine Harding<sup>1</sup>, Nicholas Taylor<sup>1,2</sup>

<sup>1</sup>Eastern Health, Melbourne; <sup>2</sup>La Trobe University, Melbourne

P10, Poster

#### OBJECTIVES

Allied Health professionals are encouraged to utilise clinical research skills within their practice. While undergraduate allied health courses include some training in basic research skills, little is known about the most effective methods of continuing research training into professional life. This presentation describes the development, implementation and evaluation of an innovative allied health research training scheme that has resulted in tangible research outputs within a large metropolitan health service.

#### METHODS

An innovative 12-week allied health research training scheme was developed at Eastern Health in 2008 following identification of a need

for a program targeting clinicians who identified themselves as highly interested in research but lacking in skills and confidence. The program utilises a mixed approach of group learning and individual mentoring to guide participants through the process of conducting a systematic review of the literature. Qualitative semi-structured in-depth interviews with participants and mentors, and direct research outputs (publications, presentations and research degree enrolments) over 5 years were used to evaluate the program.

#### LESSONS LEARNED

36 clinical allied staff completed the program over 5 years, resulting in 13 published papers in peer-reviewed journals, 14 national conference presentations and 4 participants going on to enrol in a PhD. Qualitative data indicates that the program is both challenging and rewarding for participants and mentors.

#### IMPLICATIONS

A research training program targeting motivated and interested clinicians and utilising existing resources can lead to tangible outputs within a clinical setting, and is a feasible pathway for clinical staff to step into research.

### Can a Rural Managed Clinical Network of Obstetric Services Survive?

Ruth Stewart<sup>1</sup>, James Dunbar<sup>2</sup>

<sup>1</sup>James Cook University; <sup>2</sup>Greater Green Triangle University Department of Rural Health

P12, Poster

#### OBJECTIVES

To describe the rise and fall of a managed clinical network for rural maternity services and to draw lessons for other clinical networks and learning organisations.

#### METHODS

Two structured interviews with key stakeholders were analysed using grounded theory. Participant observation-based narrative of the life of the network and clinical audit data was analysed seeking trends.

#### LESSONS LEARNED

The small rural network functioned as a learning organisation and displayed characteristics of a high performing team by improving clinical performance through innovation. Hierarchical power over development of policy and strategic direction of the network, exerted by regional hospital middle managers shut the network down. Systems thinking explains this network as a high performing clinical microsystem working within a non-supportive clinical macrosystem.

#### IMPLICATIONS

Designers of a clinical network should establish their clinical microsystem with support from the macrosystem. Otherwise the macrosystem will play power politics irrespective of clinical outcomes.

### Paramedic Student Clinical Education: An International Benchmarking Study

Brett Williams<sup>1</sup>, Peter O'Meara<sup>2</sup>, Helen Hickson<sup>2</sup>

<sup>1</sup>Monash University; <sup>2</sup>La Trobe University

P13, Poster

#### OBJECTIVES

The objective was to discover the elements of a quality clinical placement for paramedic students. In this presentation, we will discuss the purpose of clinical placements and outline some of the preliminary findings.

#### METHODS

This benchmarking research used a mixed methods approach to determine the optimum duration, content and structure of clinical placements for paramedic students in Australia and New Zealand. There were three parts to this study:

- a gap analysis and curricula review at an institutional level on current paramedic clinical placements and preparedness for practice.
- Quantitative research at the paramedic student level on current *perceived* and *actual* clinical placement learning.
- Qualitative interviews with instructors who supervise paramedic students on clinical placement.

#### LESSONS LEARNED

In this presentation, we will focus on quantitative results from two



standardised scales (Preparedness for Hospital Practice (PHP) and Dundee Ready Education Environment Measure (DREEM)) from three Australian universities (Monash, La Trobe, and Victoria Universities) involving 503 students (49% response rate). The majority of participants were from Victoria University n=369 (73%), enrolled in first year n=206 (41%) and < 25 years of age n=314 (62%). Results from PHP suggest that students felt well prepared for practical skills and patient management, while findings from DREEM found that students had positive perceptions on academic teaching and learning.

#### IMPLICATIONS

This study has highlighted the issues about what is important for paramedic student clinical placements. In a practice-based profession such as paramedicine, student clinical education is a burgeoning issue for educators, ambulance services, clinical instructors and paramedic students.

### Factors Associated with Transfers from Health Care Facilities Among Readmitted Older Adults with Congestive Heart Failure

*Tasneem Islam<sup>1,2</sup>, Beverly O'Connell<sup>1,3</sup>, Mary Hawkins<sup>1,2</sup>*

<sup>1</sup>Deakin University; <sup>2</sup>Centre for Nursing Research — Deakin University & Monash Health Partnership; <sup>3</sup>University of Manitoba

P16, Poster

#### OBJECTIVES

As chronic illness accounts for a considerable proportion of health care expenditure, there is a need to identify factors that may reduce hospital readmissions and transfers for older patients with chronic illness. The aim of this study was to examine a range of factors potentially associated with transfer from health care facilities among older adults readmitted within a Melbourne public hospital network.

#### METHODS

Using a retrospective case-control study design, 51 patients transferred from private residences were matched by age and gender with 55 patients transferred from health care facilities (including nursing homes and acute care facilities). Univariate and multivariate logistic regression analyses were used to compare the two groups and determine associations between 46 variables and transfer from a health care facility.

#### LESSONS LEARNED

Patients readmitted from healthcare facilities were significantly more likely to experience relative socioeconomic advantage, disorientation on admission, dementia diagnosis, incontinence and poor skin integrity than those readmitted from a private residence. Three of these variables remained significantly associated with admission from health care facilities after multivariate analysis: relative socioeconomic advantage (OR 11.30, CI 2.62-48.77), incontinence (OR 7.18, CI 1.19-43.30) and poor skin integrity (OR 18.05, CI 1.85-176.16).

#### IMPLICATIONS

Older adults with chronic illness readmitted to hospital from health care facilities are significantly more likely to differ from those readmitted from private residences in terms of relative socioeconomic advantage, incontinence and skin integrity. The findings direct efforts towards addressing the apparent disparity in management of patients admitted from facilities as opposed to private residences.

### Evaluating Data Capture Methods for the Establishment of Diagnostic Reference Levels in Computed Tomography Scanning

*Rachael Moorin<sup>1,2</sup>, Rene Forsyth<sup>1</sup>, David A.J. Gibson<sup>2</sup>, Max Bulsara<sup>3</sup>, C. D'Arcy J. Holman<sup>2</sup>*

<sup>1</sup>Curtin University; <sup>2</sup>University of Western Australia; <sup>3</sup>University of Notre Dame Australia

P17, Poster

#### OBJECTIVES

Concerns about the radiation dose associated with computed tomography (CT) scanning have led to a call for establishment of diagnostic reference levels, usually determined by the 75<sup>th</sup> percentile of dose used by providers. Self-complete surveys have been used extensively to gather this information however, departmental Radiological Information System's/Picture Archive Communication System's (RIS/PACS) also hold the relevant information. We compared dosimetry derived from survey with that using RIS/PACS's.

#### METHODS

Technical data were collected from a large metropolitan tertiary hospital in WA using both data collection methods for a range of adult CT scanning examinations. Radiation dose was estimated from both datasets and the results evaluated for several indexes of inter-rater agreement.

#### LESSONS LEARNED

Radiation dose estimated using self-report survey data differed both systematically and proportionally from that estimated using RIS/PACS data. Differences were not consistent across CT examination type and thus not amenable to simple correction. The disparity was greater and more variable for organ dose than effective dose due to reliance of survey data on "generic" anatomical start and stop limits compared with actual data available on RIS/PACS.

#### INTERPRETATION

The availability of electronic databases that include information required for the evaluation and monitoring of CT radiation dose provides the opportunity to capture better quality data in a cost-effective manner eliminating many of the potential biases associated with surveys. We recommend that national and local databases are established that routinely capture these data so as to facilitate the development and monitoring of radiation dose associated with CT scanning.

### What Happens When Patients Collect the Data?

*Fiona Doolan-Noble, Robin Gauld, Debra L. Waters*

*Centre for Health Systems, Department of Preventive and Social Medicine, University of Otago*

P19, Poster

#### OBJECTIVES

To explore the potential of using solicited patient diaries to gain a clearer understanding of the everyday experiences and health care encounters of those who live with multiple chronic conditions.

#### METHODS

Solicited patient diaries involve participants completing a diary over a specified time period and recording frequency. The entries reflect issues of interest to the researchers and participants are aware that their diary will be read and interpreted by the research team.

#### LESSONS LEARNED

The diaries provide the research team with rich, dense text data, analysis of which resulted in the emergence of a variety of profiles of patients' with multiple long-term conditions. However, key themes were consistent over the various profiles, reflecting the importance of maintaining functional ability, social connectedness and the need to preserve a sense of self.

#### IMPLICATIONS

This novel methodology supported an improved understanding of the complex and multi-layered interactions of chronicity on a person's everyday life. Contemporary health care systems are struggling to provide services that meet the needs of those with multiple chronic conditions. Utilising this method in a larger study may assist funders, planners and providers to understand more clearly the needs and preferences of this group of patients; thereby potentially enhancing the appropriateness and applicability of services offered.

### The Patterns of Multimorbidity and Comorbidity of Chronic Diseases Among the Senior Australians: Assessment Using a Range of Approaches

*Md. Mofizul Islam<sup>1</sup>, Jose M. Valderas<sup>2</sup>, Laurann Yen<sup>1</sup>, Paresh Dawda<sup>1</sup>, Ian McRae<sup>1</sup>*

<sup>1</sup>Australian Primary Health Care Research Institute, Australian National University, Canberra, Australian Capital Territory; <sup>2</sup>Health Services and Policy Research, Department of Primary Care Health Sciences, University of Oxford, Oxford

P21, Poster

#### OBJECTIVES

Understanding patterns and identifying common clusters of chronic conditions is useful and potentially can save both provider and patient time and costs. However, only limited research has been conducted and those limited studies used different approaches and study findings may vary with approaches.

#### METHODS

This study estimates the prevalence of common chronic diseases

and examines co-occurrence of diseases using four approaches: (i) identification of the most occurring pairs and triplets of comorbid diseases; performing (ii) cluster analysis of diseases (iii) principal component analysis and (iv) latent class analysis. Data were collected using a questionnaire mailed to a cross-sectional sample of senior Australians, with 4574 responses.

#### LESSONS LEARNED

Eighty-two percent of participants reported having at least one chronic disease and over 52% reported having at least two chronic diseases. Three defined groups of chronic conditions were identified: (i) asthma, bronchitis, arthritis, osteoporosis and depression; (ii) high blood pressure and diabetes, and (iii) cancer, with *heart disease and stroke* either making a separate group or “attaching” themselves to different groups in different analyses. The groups were largely consistent across the approaches. Stability and sensitivity analyses also supported the consistency of the groups.

#### IMPLICATIONS

The consistency of the findings suggests there is co-occurrence of diseases beyond chance. The patterns of co-occurrence are important for clinicians, patients, policymakers and researchers. Further studies are needed to provide a strong evidence base which would benefit from appropriate guidelines for the care and management of patients with particular condition clusters.

### Gene Environment Interactions in Health Services Utilization and Access to Care

*Arindam Basu*

*University of Canterbury*

P24, Poster

The purpose of this presentation is to argue the role of behavioral genetics as an influencer in the understanding of access to care, use of health services and outcomes of use. The presentation will be based on three connected units. First, a brief overview of extant models of health services utilization and behavioral genetics will be provided. Second, published data of genetic influences on health services use and self-reported health will be provided. Finally, the need for research on the role of environmental factors, physical and virtual, and the interactions of these sources of influences on access, use and outcomes of care for individuals and populations will be laid out. While health services research has a traditional focus on cost, structure, processes, and outcomes of care, stress on genetic and environmental variables on access and utilization of care have been relatively less emphasized. This apparent neglect has both clinical and policy implications for the larger field of health services research as will be argued.

### Knowledge Exchange, Primary Health Care and Health Services — The Role of the Primary Health Care Research and Information Service

*Ellen McIntyre, Jodie Oliver-Baxter, Lynsey Brown*

*Primary Health Care Research & Information Service, Flinders University*

P26, Poster

#### OBJECTIVES

This presentation outlines innovative ways a knowledge exchange organisation, the Primary Health Care Research & Information Service (PHC RIS), operates. Knowledge Exchange (KE) is a process that aims to get research knowledge into action; knowledge is translated into either decision-making or practice settings. KE involves synthesis, transfer, and application of knowledge, to fast-track benefits of innovation to strengthen health systems and improve people's health.

#### METHODS

PHC RIS works in partnership with PHC stakeholders to assist people working in the sector to find information, share knowledge, build capacity and exchange ideas about PHC. Resources provided by PHC RIS relevant to health services include: 1) the PHC Search Filter enabling quick and easy access to PHC literature using real-time searches of PubMed; 2) weekly (eBulletin) and bi-monthly (Infonet) newsletters delivering the latest PHC research, resources, news and opportunities; 3) Getting started guides on PHC topics, research and KE; 4) the Roadmap of Australian PHC Research (ROAR) providing information about projects and researchers; and 5) synthesised research reports (short RESEARCH ROUNDups and longer Policy Issue Reviews) addressing topical policy matters.

#### LESSONS LEARNED

Evidence of uptake is provided, with emphasis on the value of KE tools for educating, motivating and informing professionals working in PHC and health services research.

#### IMPLICATIONS

A KE organisation can boost the use of research by health service providers and policy makers through research synthesis, translation and application, and knowledge exchange. This has the capacity to enhance health system performance based on evidence.

### Using Call to Action Questions to Facilitate Behaviour Change

*Kerrie Westaway, Lisa Kalisch Ellett, Natalie Blacker, Mhaire Kerr, Nicole Pratt, Elizabeth E. Roughead*

*Quality Use of Medicines and Pharmacy Research Centre, University of South Australia*

P27, Poster

#### OBJECTIVES

Transferring research findings into clinical practice has traditionally been challenging and unpredictable. The Veterans' MATES program, which is underpinned by behaviour change theories, provides interventions to translate evidence into practice. Call to action or commitment questions in health interventions is one method that can facilitate behaviour change. Veterans' MATES uses call to action questions in response forms to facilitate behaviour change. In this study, we focused on bridging the evidence practice gap of renal function testing when prescribing medicines that are either renally cleared, may impair renal function or cause nephrotoxicity. We evaluated the impact of the call to action question on rates of renal function testing.

#### METHODS

Responses forms sent at the time of the intervention included questions for veterans that asked whether they would “talk to their doctor about renal function testing”. Rates of renal function testing in veterans who answered ‘yes’ to the response forms were compared with non-respondents and those who answered ‘no’.

#### LESSONS LEARNED

Nine months after the veterans mates intervention, 40% of those who had answered ‘yes’ to the questions, had received renal function testing, compared with 35% who didn't respond and 31% who said ‘no’ (p<0.0001).

#### IMPLICATIONS

Call to action questions appears to facilitate behaviour change.

### Supporting Knowledge Use in Aboriginal and Torres Strait Islander Health

*Jennifer Tieman, Mikaela Lawrence, Ruth Sladek, Raechel Damarell*  
*Flinders University*

P28, Poster

#### OBJECTIVES

If we are to continue to improve health outcomes for Aboriginal and Torres Strait Islander peoples in Australia, it is important that health professionals, community providers, researchers, academics and policy makers learn from research and work that has already been undertaken. This study aimed to experimentally develop and test a search filter to retrieve literature relevant to Aboriginal and Torres Strait Islander health.

#### METHODS

Established search filter methods were followed:

1. Expert Advisory Group involvement,
2. Gold Standard Set of relevant references,
3. Relevant MeSH and textwords identification,
4. Search filter development,
5. Post hoc relevance assessment, and
6. PubMed validation.

#### LESSONS LEARNED

A search filter to identify literature relevant to Aboriginal and Torres Strait Islander health was developed (Sensitivity: 84.8%, Precision 81.2%). By combining the search filter with topic searches for use in PubMed, it was possible to create a sophisticated “one-click” searching solution (Lit.search) within the Lowitja website.

The technical feasibility of developing additional search filters for other Indigenous populations has also been investigated.

#### IMPLICATIONS

This search filter has potential benefits for all involved in Aboriginal and Torres Strait Islander health as it removes a barrier to knowledge use by enabling easy and effective engagement with the published literature. The Lit.search tool can be freely accessed through the Lowitja website ([www.lowitja.org.au](http://www.lowitja.org.au)). This approach to knowledge retrieval could be considered for other Indigenous populations internationally.

#### ACKNOWLEDGEMENTS

This study was funded by the Lowitja Institute.

### Beliefs and Attitudes About Work and Retirement: The Retention of Allied Health Professionals at Retirement Age in Rural Victoria (RETAINR) Research Project

*Margaret Stebbing*

*Department of Rural and Indigenous Health, School of Rural Health, Monash University*

P29, Poster

#### OBJECTIVES

The RETAINR study aimed to identify beliefs and attitudes that predict, explain and influence the decision by retiring allied health professionals in rural Victoria to continue working; to develop strong and relevant communication materials that target those beliefs; and together with local stakeholders to build and pilot a locally relevant workforce recruitment and retention model that directly addresses the expressed beliefs.

#### METHODS

The study team built on existing local networks and partnerships and utilised qualitative, quantitative and action research methods to identify key behavioural, normative and control beliefs about work and retirement. A cross-disciplinary working group of key local stakeholders in the Bass Coast and South Gippsland regions of Victoria are using this knowledge to inform the development new models of practice that directly address the identified beliefs.

#### LESSONS LEARNED

Maintaining a sense of independence, self-esteem, satisfaction at work and enjoyment of life, the opportunity to remain intellectually stimulated and to continue to engage with and contribute skills and expertise in the local community were highly valued. Flexibility in the type, location and hours of work and availability of suitable positions were key enablers, and a lack of available work referrals, strict working hours, declining health and wellbeing, and lack of support from management were key impediments.

#### IMPLICATIONS

Attitudes towards work and retirement are changing. Flexible collaborative models of care that are locally relevant and support autonomy and work/life balance are most likely to support the retention of skilled allied health professionals in rural Victoria at retirement age.

### Outcomes of Nursing Care in Australian General Practice: A Study Protocol

*Jane Desborough<sup>1</sup>, Michelle Banfield<sup>1</sup>, Rosemary Korda<sup>2</sup>, Jane Mills<sup>3</sup>, Christine Phillips<sup>4</sup>, Nasser Bagheri<sup>1</sup>*

*<sup>1</sup>Australian Primary Health Care Research Institute, Australian National University; <sup>2</sup>National Centre for Epidemiology and Population Health, Australian National University; <sup>3</sup>James Cook University; <sup>4</sup>Australian National University Medical School*

P30, Poster

#### OBJECTIVES

The objective of this study is to examine the influence of general practice characteristics and practice nurse consultation characteristics on patient satisfaction and enablement?

#### METHODS

A mixed methods, quantitative/qualitative approach will be taken. The quantitative aspect will use a two level model to examine practice nurse consultation characteristics (first level) and general practice characteristics (second level). The first level will examine reason for seeing the nurse (or health problem), continuity of provider, duration of consultation, interruptions to consultations, how well patients know the nurse and nurse qualifications. The second level will examine practice

size, stability of the team and the location of the nurse. The quantitative measurement tools will consist of two surveys: The Patient Enablement and Satisfaction Survey (PESS) and a General Practice Survey. The qualitative method used will be in-depth interviews, with patients, nurses and general practitioners. These will be conducted concurrently with quantitative data collection, and will be guided by the principles of grounded theory.

#### LESSONS LEARNED

Understanding of the influence of specific general practice and nurse consultation characteristics on patient satisfaction and enablement arising from practice nurse care provides a foundation for clinical practice and policy. These findings will also add to the body of nursing theory, specifically, how the nursing process facilitates patient enablement in general practice.

#### IMPLICATIONS

The findings from this study will have direct implications for future planning and development of nursing in general practice; practice nurse education and training, and relevant government policy.

### Factors Linked to Patient GP Payments: Results of a Survey of Australian Patients

*R. De Abreu Lourenco, Patsy Kenny, Jane Hall, REFinE Team*

*Centre for Health Economics Research & Evaluation, University of Technology Sydney*

P31, Poster

#### OBJECTIVES

To investigate out-of-pocket payments to GPs in Australia using a patient survey.

#### METHODS

A survey was administered via an online panel to Australian individuals aged 16 years or older. The survey questions focused on patient perceptions of GP practice structure, the services offered, payment methods, their experiences in using health care services and patient demographics.

#### LESSONS LEARNED

2,564 respondents completed the survey (July 2013). 83% of respondents reported that the practice they went to for their most recent GP visit bulk-billed (no out-of-pocket fee) all, or at least some patients. Overall, 71% of respondents reported that their last consultation with a GP was bulk-billed. Fees paid (allowing out-of-pocket costs to be estimated) were collected for the remaining 29% of respondents. Of those, 41% were charged a fee between A\$60–A\$74. Results suggest bulk-billing is associated with practice size, whether patients had an appointment for their visit, and the presence of a chronic condition. There was no apparent association between bulk-billing practices and the time spent with the GP (76% spent 5–19 minutes at their last visit). The impact on bulk-billing and out-of-pocket fees of patient location, demographic factors, and GP utilisation is also investigated.

#### IMPLICATIONS

Fees charged are higher than the associated government (MBS) fee (A\$36.30) for visits of the duration reported by respondents. While this does not seem to impact on patient attendance, closer investigation of the link between GP fees, the government rebate, and the resources required to provide care is warranted.

### Effectiveness of Aquatic Exercise in Arthritis and Related Musculoskeletal Conditions: A Systematic Review and Meta-Analysis

*Anna Barker<sup>1</sup>, Jason Talevski<sup>1</sup>, Renata Morello<sup>1</sup>, Caroline Brand<sup>1</sup>, Ann Rahmann<sup>2</sup>, Donna Urquhart<sup>1</sup>*

*<sup>1</sup>Monash University; <sup>2</sup>Metro North Hospital and Health Service*

P36, Poster

#### OBJECTIVES

To determine the effectiveness of aquatic exercise in the management of arthritis and related musculoskeletal conditions.

#### METHODS

A systematic review was conducted using Ovid MEDLINE, CINAHL, EMBASE and The Cochrane Central Register of Controlled Trials from earliest record to 30 April 2013. Randomized controlled trials evaluating aquatic exercise interventions and assessing at least one objective measure of pain, physical function or quality of life were

included. The Physiotherapy Evidence Database scale was used to assess the methodological quality of selected studies. Meta-analyses were conducted for pain, physical function and quality of life outcomes post-intervention. Standardized mean differences between groups were calculated.

#### LESSONS LEARNED

Compared to non-active controls, aquatic exercise reduced pain (SMD -0.75, 95% CI -1.14 to -0.35), and improved physical function (SMD 0.28, 95% CI 0.16 to 0.40) and quality of life (SMD 0.56, 95% CI 0.16 to 0.95). Compared to land-based exercise, aquatic exercise achieved comparable results. Preliminary evidence suggests that people with fibromyalgia and low back pain experience greater benefits in terms of reduced pain and improved physical function than people with arthritis.

#### IMPLICATIONS

This systematic review demonstrates that aquatic exercise interventions can provide pain relief, and improve physical function and health-related quality of life in patients with arthritis and related musculoskeletal conditions. These benefits appear comparable to those achieved with land-based exercise. Therefore, when people are unable to exercise on land or find land-based exercise difficult, aquatic programs provide an enabling alternative strategy.

### Doing More with Less in Hospice Care: The Enhanced Community Model Project

Jane MacGeorge, Teresa Read

Mary Potter Hospice

P38, Poster

#### OBJECTIVES

The objective of the presentation is to share an enhanced community model (ECM) designed by one New Zealand hospice team to help future proof its inpatient and community services.

Projected increases in the numbers of people needing palliative care are shifting services from inpatient to community settings. Leading this collaborative development are hospices, aged care providers and primary and community health providers.

#### METHODS

A study of the hospice community teams' activities identified strengths and gaps in moving care to community based settings. Business process mapping traced patients' journeys, identifying where needs were greatest. An evaluation project was established to implement quality improvements in the community service and to measure their effectiveness.

The ECM project's aims were:

- to increase access for those in need
- to support patients with high quality care at their usual place of residence
- to evaluate the benefits and outcomes of the ECM.

#### LESSONS LEARNED

Adequate resources are vital for sustainability and workforce development. The existing service has achieved enhanced efficiencies. Agreed success criteria will drive further efficiencies in the future.

#### IMPLICATIONS

The ECM will provide enhanced care to people living and dying in their usual place of residence in collaboration with other providers. This will be a more efficient and effective use of resources, thereby reaching more people for less.

## Posters Tuesday 3 December

Tuesday 3 December 2013,

### Obstetric Transfusion Rates in NSW: Trends and Risk Factors

Jillian Patterson, Christine Roberts, Jonathan Morris, Jane Ford

Perinatal Research, Kolling Institute, University of Sydney

P39, Poster

#### OBJECTIVES

To examine recent trends in the use of blood and blood products during pregnancy, childbirth and the postpartum period, and to identify risk factors for transfusion.

#### METHODS

Linked birth and hospital data were used to examine rates of maternal blood product transfusion during pregnancy, birth and 6 weeks postpartum, 2001–2010 in hospitals in New South Wales, Australia. Poisson regression was used to examine risk factors for blood product transfusion in the birth admission with relative risks (RR) and 95% confidence intervals (CI) presented.

#### LESSONS LEARNED

Of the 891,914 pregnancies in NSW between 2001–2010, 12,147 (1.4%) involved transfusion of blood or a blood product. There has been a 33% increase in transfusions since 2001, from 1.2% in 2001 to 1.6% in 2010. There has been little change in products used, with most women receiving only red cells (86%). The majority of transfusions were during the birth admission (91%), and the majority of these associated with haemorrhage (81%). Women with bleeding/platelet disorders were 8 times more likely to receive a blood product transfusion than women without these disorders; among vaginal births, increased risk was evident for forceps (RR=2.8, CI 2.6–3.0) or vacuum births (RR=1.9, CI 1.7–2.0) compared to non-operative births.

#### IMPLICATIONS

Transfusion rates in the obstetric population have risen steadily, with the majority of this in the context of haemorrhage. Women identified as being at high risk of transfusion should be managed in hospitals with ready access to blood and blood products.

### Development and Evaluation of a Twelve-Month Multidisciplinary Graduate Training Framework in Clinical Measurement Sciences

Stephanie Van Ballegooyen<sup>1</sup>, Tilley Pain<sup>1</sup>, Megan Harbourne<sup>1</sup>, Chris Brown<sup>2</sup>

<sup>1</sup>Townsville Hospital and Health Service; <sup>2</sup>Nambour Hospital and Health Service

P40, Poster

#### OBJECTIVES

This project developed a generalist, graduate training framework across four clinical measurement disciplines to support sustainable regional service delivery. The Townsville Hospital's clinical measurement departments are comprised of cardiac, respiratory, sleep and neurophysiology sciences. Entry to clinical sciences is via an undergraduate human science degree and on-the-job training in a single discipline. However, some regional facilities have multidisciplinary clinicians skilled in two disciplines because of workforce limitations. Gaps in service delivery occur when sole practitioners take leave. This project was designed to fill that gap.

#### METHODS

The framework, trialled by two graduates, included four 10-week discipline-specific training blocks and one 8-week multidisciplinary block. Success was measured by the trainees' ability to support base-level clinical service relief. One aspect of evaluation included: (1) trainer's perception of trainees' clinical competence; and (2) trainees' self-reported confidence for providing clinical service relief, measured on a five-point Likert scale.

#### LESSONS LEARNED

The twelve month training framework was sufficient to skill new graduates in core techniques which enabled them to backfill leave periods for sole practitioners thereby providing a continuous service.

#### IMPLICATIONS

The scientist trained in all four clinical measurement disciplines allows continuous service by backfilling positions when sole practitioners in single disciplines are on leave, sick or vacate the position. The role could be introduced in both regional and metropolitan centres without additional costs by providing multidisciplinary training to new graduates as they are recruited. Continuous clinical measurement service provision reduces backlog of patients waiting for investigations, potentially reducing length of stay.

#### RESULTS

Quantitative and qualitative data reflected the trainees' ability to confidently and competently support basic, multidisciplinary clinical service relief for non-complex patients with appropriate supervisory mechanisms.

#### DISCUSSION

Using the framework, graduates were skilled across a range of base-level, multidisciplinary investigations. The scope of clinical service

relief varied with each discipline. This framework is applicable to other clinical measurement services with potential to establish a graduate generalist role.

## CONCLUSIONS

A multidisciplinary graduate training framework is a viable option to support regional clinical measurement services within the respiratory, cardiac, neurophysiology and sleep sciences.

## Non-Medical Prescribing in New Zealand: An Update

*Alesha Smith*<sup>1,2</sup>

<sup>1</sup>University of Otago; <sup>2</sup>bpac<sup>nz</sup>

P41, Poster

### OBJECTIVES

Prescribing of medicines by health professionals other than general practitioners (non-medical prescribing) is set to grow throughout New Zealand in response to recent legislative changes. The aim of this project was to investigate recent prescribing by non-medical prescribers in New Zealand.

### METHODS

The Ministry of Health pharmaceutical collection database was used to search for medicines prescribed by Dentists or Nurses/Midwives and dispensed in community pharmacies during 2010–2012 in New Zealand.

### LESSONS LEARNED

Non-medical prescribing has increased over the last 3 years from 205,314 items dispensed in 2010 to 349,229 in 2012. More specifically in 2012 dentists prescribed for 60,007 unique patients with the highest proportion (13%) from the Waikato DHB and the lowest (0.2%) from Southland DHB. Nurses/midwives prescribed for 41,828 unique patients with the highest proportion (13%) from the Counties Manukau DHB and the lowest (0.2%) from Wairarapa DHB. In 2012 total medicines cost in was \$2,532,749.82 with amoxicillin and potassium iodate the 2 most commonly prescribed items by dentists and nurses/midwives respectively.

### IMPLICATIONS

This study has demonstrated that prescribing by non-medical prescribers is increasing in New Zealand with the majority of prescribing appearing to be within prescriber's scope of practice. Further research is needed to better understand prescribing practice of this cohort to ensure high quality, accessible, cost effective healthcare is achieved without compromising patient safety and patient health outcomes.

## Assessing How Policy Analysis Theories Are Applied to Health Equity Issues in the Social Determinants of Health: A Systematic Review

*Mark Embrett*

McMaster University

P42, Poster

### BACKGROUND

In the past decade there has been growing interest in reducing health inequities by addressing the social determinants of health (SDH) through the implementation of healthy public policies. Despite an ever growing body of evidence and plethora of recommendations by researchers advocating for governments to implement redistributive policies, very little has been done to reduce health inequities through public policy.

### OBJECTIVES

To determine the state of research that utilize policy analysis tools or frameworks to explain the political, social, and economic conditions affecting SDH/Health Equity (HE) issues' progression through the initial stages of the policy process.

### METHODS

A systematic review of the policy literature, between 2002 and 2012, combining SDH and HE issues with policy concepts was conducted within 39 electronic databases.

### RESULTS

Of the 6200 articles identified in the initial review, only seven articles were identified as using recognized policy analysis tool or theoretical framework. Results also demonstrate that when policy analysis concepts are used, they are often not applied within the broader context of their respective theoretical framework by considering the variety of influences that can affect a policy issue's progression onto the political agenda. Steps to apply a more holistic policy analysis, based on found challenges,

are presented as guidance for future research.

## CONCLUSIONS

Results demonstrate that a significant gap exists regarding SDH/HE policy analysis and that a shift away from advocacy literature towards a concerted effort to produce high quality policy analysis is required to understand these complex policy issues to move them forward on government policy agendas.

## The Migration Experience and Impact on Professional Adaptation of British Nurses and Midwives to Western Australia

*Caroline Yates*

Curtin University

P43, Poster

### OBJECTIVES

Despite current health workforce policy aiming for self-sufficiency and sustainability in the nursing workforce, it is anticipated that Australia's reliance on international trained nurses will continue. Anecdotal evidence indicates that the attrition rate of British nurses and midwives in WA is high. The purpose of this study was to explore the process of migration and the impact on professional adaptation of these nurses and midwives.

### METHODS

This qualitative study used grounded theory methodology. A purposive sample was drawn from British migrant nurses and midwives who have been employed in the WA health care system. Data was collected using semi-structured in-depth interviews.

### LESSONS LEARNED

It is apparent many overseas trained nurses who migrate to a country even with a similar culture and language, face many challenges, such as adapting to a new role, dealing with a sense of belonging and unfamiliarity. There are a multitude of reasons that affect the decision to migrate, the decision to stay and the decision to leave Australia. Little is known about this decision making process in British nurses and midwives, moreover, even less is known about the movement of these nurses in the workforce.

### IMPLICATIONS

If there is to be a sustained dependence on British nurses and midwives there needs to be a wider understanding about their migration experience and its impact on professional adaptation to the role. This will inform workforce and human resource policy regarding recruitment, retention and support long-term integration of British nursing and midwifery staff in Western Australia.

## Variation in Hospital Caesarean Rate Among Nulliparous Women: Can it be Explained?

*Christine Roberts, Yuen Yi Cathy Lee, Jillian Patterson, Tanya Nippita, Jane Ford*

Perinatal Research, Kolling Institute, University of Sydney

P44, Poster

### OBJECTIVES

To explore variation in hospital caesarean section rates for nulliparous women (first births), and to determine to what extent this can be explained by case mix, obstetric management and hospital level factors.

### METHODS

Linked hospital discharge and birth data were used to identify nullipara with singleton births at term ( $\geq 37$  weeks gestation) in 81 NSW hospitals with  $\geq 50$  births per annum, 2009–2010. To investigate caesarean rates (pre-labour, and intrapartum caesarean following spontaneous labour or labour induction) a series of random effects multilevel logistic regression models were fitted, progressively adjusting for maternal, obstetric management and hospital factors. Maternal and neonatal morbidity rates were compared across quintiles of hospital caesarean rates.

### LESSONS LEARNED

Of 67,239 women, 4,902 (7.3%) had pre-labour caesareans, 39,049 (58.1%) had spontaneous labour and 23,288 (34.6%) had labour inductions. On average, labour inductions were twice as likely to end in intrapartum caesarean section compared with spontaneous labour (31.4% versus 15.5%). Wide variation in caesarean rates was apparent. After adjusting for maternal casemix, obstetric management

and hospital factors, the overall variation in hospital caesarean rates decreased by 79% for prelabour caesareans, and for intrapartum caesarean by 50% following spontaneous labour and by 22% following labour induction. However, adjusting for obstetric practices actually increased the unexplained variation in intrapartum caesareans. There was no association between caesarean rates and maternal or neonatal outcomes.

### IMPLICATIONS

Both casemix and practice differences contributed to variation in recent hospital caesarean rates. Obstetric management is a potential target for reducing caesarean section rates.

## NZ Baby Boomers' Health Literacy: A Platform for Improving Healthcare

Janet Davey, Michele Akoorie, Kathryn Pavlovich, Stewart Lawrence, Mary FitzPatrick

Waikato Management School, University of Waikato

P45, Poster

### OBJECTIVES

Health literacy is a complex social determinant of health. At the core of health literacy is the ability of individuals to make sound health-related decisions and to participate actively in their health decision-making. Despite its importance to healthcare outcomes, the broad concept of health literacy has received little attention from New Zealand researchers. This paper presents preliminary findings from research into the congruence between the health literacy of NZ Baby Boomers and primary healthcare providers.

### METHODS

Research participants, purposefully chosen from a non-risk population segment, were interviewed about their health literacy experiences and how these influence their healthcare service encounters. Participants included primary healthcare providers and Baby Boomers from a stratified sample.

### LESSONS LEARNED

Overseas research indicates that ageing Baby Boomers will demand specific types and levels of healthcare services. NZ Baby Boomers are expected to have a significant impact on healthcare services, provision, and expenditure. This research into health literacy experiences and expectations aims to provide NZ healthcare policy-makers and providers with empirical data to enable better alignment of healthcare services with Baby Boomers' health literacy.

### IMPLICATIONS

Building health literacy congruence between NZ Baby Boomers and healthcare providers is important for improved healthcare communication, interaction, service type and timing, and health engagement that will allow patient-consumers to make better choices regarding their health. This qualitative research will be followed by a quantitative survey to further investigate health literacy as a platform for developing a new model of care for NZ Baby Boomers that is more relevant and effective.

## Interpreter Policies Vary Widely Between District Health Boards. Should They All Develop Their Own Policy?

Ben Gray, Jo Hilder

University of Otago Wellington

P46, Poster

### OBJECTIVES

New Zealand has a diverse population with increasing numbers of people with limited English proficiency (LEP). Communication is a central requirement of clinical care. Patients with LEP require an interpreter, particularly to give informed consent or when discussing serious conditions. We wanted to determine if District Health Board (DHB) interpreter policies reflected good practice.

### METHODS

We compared the Interpreter policies of the 20 DHB's to literature based best practice in interpreter use.

### LESSONS LEARNED

There was a large variation in the policies. Some represented good practice but some recommended practices that many in the field would find unacceptable. For example four DHB's recommended the use of

family and friends as being acceptable as a first choice of interpreter and five DHB's recommended that family and friends should never be used. Only six DHB's listed any of the risks of using untrained interpreters. It is impossible for a clinician to get valid informed consent from an LEP patient without a trained accredited interpreter.

### IMPLICATIONS

This has important implications in relation to policy on the use of interpreters. If the policy is inadequate then it is very likely that the practice will be even worse. The more generic question is around the value of 20 different DHB's developing 20 different policies on the same topic. This situation is replicated in many areas and if there is the same variance in quality of policies then perhaps more of these policies should be developed centrally rather than being devolved out to all DHB's.

## Collection of Individual Dental Expenditure Data: A Comparison of Three Different Methods

Dana Teusner, David S. Brennan

Australian Research Centre for Population Oral Health

P48, Poster

### OBJECTIVES

Explore the potential for instrument bias in dental expenditure data collected via three different methods.

### METHODS

A sample of 3,000 adults aged 30–61 years were randomly selected from the Australian electoral roll. Participants completing a baseline questionnaire were asked to maintain a dental service log book over a 12-month period or retain copies of dental receipts (during 2009/2010). At 12-months, participants were forwarded a questionnaire collecting aggregate expenditure and service use and asked to return log books/invoices. Participant characteristics were compared by collection method. Associations between number of visits, total expenditure and total expenditure per visit by collection method were assessed by unadjusted and adjusted rate ratios (RR) estimated by negative binomial regression models.

### LESSONS LEARNED

Baseline response was low (39%, n=1,096) and of these, 53% (n=554) responded at 12-month follow-up. More than half (59%, n=326) made a dental visit and 93% (n=302) provided complete data: 48% provided logs, 25% invoices and 27% responded by questionnaire only. Males, uninsured adults and those with less frequent tooth cleaning were more likely to respond by questionnaire. Rates of expenditure for log responders (RR:1.37, 95%CI:0.95, 1.96) and invoice responders (RR:0.97, 95%CI:0.64, 1.46) did not significantly vary from questionnaire responders. Neither rates of visiting, adjusted for covariates, nor expenditure per visit were associated with collection method.

### IMPLICATIONS

While participation overall was low, nearly three-quarters of the participants maintained a log and/or provided receipts, indicating acceptability with these forms of collection. Use of multiple instruments for the collection of individual health expenditure data may improve response without introducing substantial bias.

Average household weekly expenditure by Household quintile — lowest to highest — all (ABS HES 2009/10)

<b>0902 Health practitioner's fees</b>	*12.28	9.99	16.04	22.90	33.73	18.99
<b>090201 Health practitioner's fees</b>	*12.28	9.99	16.04	22.90	33.73	18.99
<b>0902010101 General practitioner doctor's fees</b>	0.69	0.84	1.69	2.09	2.96	1.65
<b>0902010201 Specialist doctor's fees</b>	**6.28	2.72	*5.43	6.79	9.94	6.23
<b>0902010301 Dental fees</b>	3.46	4.13	5.82	9.31	13.46	7.23
<b>0902010401 Optician's fees (including spectacles)</b>	0.91	1.31	1.31	1.33	2.81	1.53
<b>0902010501 Physiotherapy and chiropractic fees</b>	*0.53	0.68	1.10	1.91	2.28	1.30
<b>0902019999 Health practitioner's fees nec</b>	0.42	0.31	0.69	*1.48	2.28	1.04

## Health Science Academies (HSA) Evaluation: Findings

*Lesley Middleton, Ausaga Faasalele Tanuvasa, Megan Pledger, Nicola Grace, Tūa Tauētia-Su'a, Kirsten Smiler*

*Health Services Research Centre, Victoria University of Wellington*

P50, Poster

### OBJECTIVES

Two Health Science Academies (HSA) at Tangaroa College and James Cook High School, encourage Māori and Pacifica students to consider a range of health careers.

The aim of this evaluation was to evaluate whether the HSAs achieve their objectives: 1) supporting and encouraging Māori and Pacifica students to study and succeed in science, literacy and numeracy and 2) supporting Academy schools to develop innovative models and approaches for learning.

### METHODS

This evaluation adopted a rapid evaluation and assessment approach with mixed methods. Quantitative data was collected from student's records, attendance and retention, Health NCEA achievement on Science, Maths and English, and students survey. Qualitative interviews with students, families and teachers used face to face approach to gather data.

### LESSONS LEARNED

The findings show HSA students are collectively achieving better National Certificate of Educational Achievement (NCEA) achievement results than their contemporaries.

Students, teachers and families acknowledged the importance of the HSA continuing as a joint endeavour between families and teachers for HSA to succeed. Students and families stressed that the hands on experiences highlighting the variety of health careers increased motivation and purpose for HSA students.

### IMPLICATIONS

Keeping the relationship going with Counties Manukau DHB will be important to provide a tangible experience for students on what a future job in the health sector involves. Supporting the Academy Director with a wider support network or "community of practice" and continuing to create time for culturally appropriate interactions with families will be an important part of keeping the model sustainable.

## Utilisation of Prostate Specific Antigen Testing in Male Veterans

*Svetla Gadzhanova, Elizabeth E. Roughead*

*Quality Use of Medicines and Pharmacy Research Centre, School of Pharmacy and Medical Sciences, University of South Australia*

P51, Poster

### OBJECTIVES

The Cancer Council of Australia Position Statement on Prostate Cancer Screening notes that the prostate specific antigen (PSA) testing is not recommended for use as a screening program as evidence suggests harms outweigh benefits. The Prostate Cancer Foundation recommends that men after age of 50 should talk to their doctor about PSA blood test as part of their general check-up. A higher than normal PSA levels can indicate benign prostate hyperplasia (non-malignant enlargement of the prostate gland) or prostate cancer (cause of the second highest number of cancer deaths in men after lung cancer). We aimed to determine the current level of PSA testing.

### METHODS

A retrospective cohort study using Department of Veterans' Affairs data included male members of Australian veteran community who were aged 50 and over in 2007. The proportion with at least one PSA test between 2007 and 2011 was established. The number of tests per patient and the frequency of testing were examined.

### LESSONS LEARNED

58% of the 177,251 eligible men were ever tested for PSA between 2007 and 2011. Of those who received at least one test, one third received just one test over the 5-year period, another 24% received two tests, 17% — three tests, 9% — four tests. The time between two consecutive PSA tests was 210 days for the 50<sup>th</sup> percentile, and 423 days for the 75<sup>th</sup> percentile.

### IMPLICATIONS

The results demonstrated that most men over 50 were screened for prostate specific antigen, with two thirds being tested more than once.

## Does the Establishment of Specialist Transient Ischaemic Attack (TIA) Clinics Improve Quality of Care for Transient Ischaemic Attack Patients and Prevent Subsequent Strokes?

*Nila Panko, Gregory Martin, Jackie Cumming*

*Health Services Research Centre, School of Government, Victoria University of Wellington*

P52, Poster

### OBJECTIVES

Stroke is a leading cause of mortality worldwide and the third largest killer in New Zealand; it is the largest cause of long-term disability. In recent years a focus of research attention has been to look for strategies to recognise people who are at risk of a stroke. Effective management and treatment of people who have experienced a Transient Ischaemic Attack is one such strategy. In 2008 the Stroke Foundation of New Zealand developed Transient Ischaemic Attack Guidelines with evidence-based standards and recommendations for management and treatment of TIA patients. The current research is looking into organisational and quality changes in care "Before" and "After" the TIA Guidelines were introduced.

### METHODS

Quantitative analysis of TIA incident numbers in two major hospitals of the Central Wellington Region was conducted, with comparison of incident numbers before and after TIA Clinics were opened.

### LESSONS LEARNED

There is a significant difference in registered TIA incidents within hospitals since TIA Clinics were opened. It indicates that TIA patients at high risk of a subsequent stroke are treated in a timely and appropriate way, in concordance with NZ TIA Guidelines.

### IMPLICATIONS

Further development of TIA Clinics in other New Zealand hospitals could be an effective means of decreasing the overall number of strokes, and associated mortality and morbidity across the country.

## A Strategy for Prioritizing Pediatric Inpatient Conditions

*Raj Srivastava<sup>1,2</sup>, Ron Keren<sup>1,3</sup>, Xianqun Luan<sup>1,3</sup>, Russell Localio<sup>1,3</sup>, Dingwei Dai<sup>1,3</sup>, Lisa McLeod<sup>1,3</sup>, Matt Hall<sup>1,4</sup>*

<sup>1</sup>PRIS (Pediatric Research in Inpatient Settings) NETWORK; <sup>2</sup>University of Utah, Salt Lake City; <sup>3</sup>Children's Hospital of Philadelphia, Philadelphia; <sup>4</sup>Child Health Corporation of America, Kansas City

P53, Poster

### OBJECTIVES

To develop a screening methodology for identifying pediatric inpatient conditions most in need of standardization of care or comparative effectiveness research (CER) — conditions that are prevalent, costly, and characterized by high inter-hospital variation in resource utilization.

### METHODS

Retrospective cohort study of administrative and billing data for pediatric hospital encounters from 38 US children's hospitals from 2004–2009. A new clinical condition grouper was created using principle discharge diagnosis codes. To use hospitalizations costs as a surrogate for volume of resources expended, we standardized the cost of individual items to remove the high inter-hospital variation in item costs. Each condition was rank ordered by prevalence, total standardized costs (adjusted for inflation), and variation in mean standardized cost/admission across hospitals (using intra-class correlation coefficients). Plots illustrating the degree of variation and high/low cost outlying hospitals were generated for the 100 costliest conditions.

### LESSONS LEARNED

Multiple pediatric inpatient conditions are prevalent, costly, and demonstrate high inter-hospital variation in standardized costs. For example, appendicitis without peritonitis had a total standardized cost of \$256 million for 40,142 admissions. Cost/admission (20<sup>th</sup>–80<sup>th</sup> percentile) varied from \$5,376–\$9,728.

### IMPLICATIONS

While pediatric specialty hospitals deal with complex cases, the large observed variation in standardized costs (and resources utilized) within a particular condition might represent an opportunity to assess the quality of care they are providing. Hospital administrators and clinical leadership may use these results to focus future efforts on standardization of care and identify opportunities for CER.

## ACKNOWLEDGEMENTS

This work was conducted for the PRIS NETWORK which has an administrative home at the University of Utah.

## Insurance Status and its Relationship to Prospective Dental Service Use

*Emmanuel S. Gnanamanickam, David S. Brennan, Dana Teusner  
Australian Research Centre for Population Oral Health, University of Adelaide*

P55, Poster

### OBJECTIVES

Numerous studies have explored the associations between dental insurance and service use. The recent National Dental Telephone Interview Survey (NDTIS) did not find a significant association between insurance and number of visits. This study investigates the relationship between dental insurance status and prospectively collected dental service use over 12 months.

### METHODS

Data was sourced from a random sample drawn from the electoral roll, of 30–61 year old adults from across Australia in 2009. Baseline data was collected in 2009–10 using a mailed questionnaire and at 12 months prospective data was collected through a logbook (including receipts) of service use and questionnaire. A Poisson regression was used to test the bivariate relationships and multivariate associations between insurance status and number of visits.

### LESSONS LEARNED

Baseline questionnaire response rate was 39.4% and of which 53.1% responded at one year follow-up. About 58% of the first year respondents made at least one visit. Among the dentate and those who made at least one dental visit the mean number of visits was 2.25 among insured and 2.72 among uninsured. The bivariate relationship between insurance and number of visits was statistically significant ( $p < 0.05$ ). However after adjusting for age, sex, and other variables there was no statistically significant association. Among those who made at least one visit the insured visited at a lower rate (Rate Ratio=0.88) than the uninsured.

### IMPLICATIONS

Using prospective visit data, there was no difference in number of visits between insured and uninsured.

## Taking Care of Business: Corporate Support Models and Indigenous Primary Healthcare Services

*Kate Silburn<sup>1</sup>, Alister Thorpe<sup>2</sup>*

<sup>1</sup>Australian Institute for Primary Care & Ageing, La Trobe University;  
<sup>2</sup>Onemda Vic Health Koori Health Unit, University of Melbourne

P56, Poster

### OBJECTIVES

The aims of the project were to: (1) identify the range of corporate support needs of Aboriginal Community Controlled Health Services (ACCHSs) taking into account the differences between services; (2) identify how different ACCHSs access different kinds of corporate support; (3) describe organised models for obtaining corporate support; and (4) discuss potential strategies for action.

The Collaborative Research Centre for Aboriginal Health identified this project to develop knowledge that could support and strengthen the sustainability of ACCHSs.

### METHODS

The project method included (1) conducting a literature review; (2) undertaking a national consultation about support needs, the factors affecting support needs and the ways services currently got support; (3) doing four case studies of organised models for obtaining corporate support; and (4) holding two national roundtables about this issue.

### LESSONS LEARNED

Significant work has been done by the ACCHSs sector on developing innovative models for obtaining corporate support, including through different kinds of centralised support, peer support networks and peak body structures. Case studies of these models enabled us to draw out lessons about successful models pertaining to leadership, governance, underpinning principles, processes for model development, decision making based on the types of support required, communication and relationship development, capacity building, sustainability, and factors associated with risk.

## IMPLICATIONS

As national health reform points to the development of more regionalised structures for delivery of health care, consideration of new approaches to corporate functions are likely to be required to ensure corporate functions can adequately support emerging arrangements for service delivery.

## Does Less Mean More to Cardiovascular Disease Patients? Using Discrete Choice Experiment to Assess Treatment Preferences Within a Pragmatic Clinical Trial

*Tracey-Lea Laba<sup>1,2</sup>, Kirsten Howard<sup>3,2</sup>, John Rose<sup>4,2</sup>, Stephen Jan<sup>1,5,2</sup>*

<sup>1</sup>George Institute for Global Health Australia; <sup>2</sup>on behalf of the PEAK Study Team; <sup>3</sup>Sydney School of Public Health, University of Sydney; <sup>4</sup>Institute for Transport and Logistic Studies, University of Sydney; <sup>5</sup>Sydney Medical School, University of Sydney

P57, Poster

### OBJECTIVES

Discrete Choice Experiment (DCE) is a preference elicitation method increasingly used to value healthcare technologies, but infrequently used within clinical trial settings. Kanyini-GAP (K-GAP) was a pragmatic clinical trial assessing a polypill-based strategy on patient adherence to cardiovascular disease (CVD) treatment in Indigenous and non-Indigenous Australians. In this context, DCE could help understand patient preferences for treatment, assisting with clinical evidence translation. This study aimed to establish the most important CVD preventive treatment characteristics of a polypill-based strategy and the trade-offs patients make when choosing treatment or no treatment.

### METHODS

A DCE was administered to KGAP patients completing end-of-study visits. Treatment preferences were assessed for out-of-pocket costs, number of tablets, administration time, and prescriber visit frequency. The odds ratios (OR, 95%CI) for preferring treatment to no treatment, and the trade-off between treatment-related characteristics were evaluated.

### LESSONS LEARNED

Of 487 eligible patients, 332 completed the survey (response rate 68%, mean age 65 (SD = 11)). Treatment was preferred over no treatment with decreasing out-of-pocket treatment costs (OR = 1.05, 1.04–1.06) and number of tablets (OR = 1.12, 1.02–1.41), but increasing prescriber visit frequency (OR = 1.19, 1.06–1.34). Patients preferred to take treatment once or twice rather than three times daily, with a stronger preference for evening administration (OR 1.99, 1.64–2.42).

### IMPLICATIONS

Most patients would prefer to have treatment for CVD prevention. Assuming equal efficacy and toxicity, taking fewer tablets, less frequently and at a lower cost meant more to patients. Polypill-based strategies could do much to improve patient use of existing healthcare technologies.

## Reducing Systemic Inequalities for Improving Women's Healthcare Services to Indigenous Populations: A Case Study from Bangladesh

*Lawrence Besra*

*School of Social and Policy Studies, Flinders University*

P58, Poster

### OBJECTIVES

This paper aims to disseminate research findings of systemic inequalities and policy praxis pertinent to women's health care services of the two most marginalized indigenous communities (Santal and Oraon) living in the remote rural areas in Northern part of Bangladesh.

### METHODS

The research conducted under a qualitative research approach including case studies, focus group discussions, in-depth interviews and critical ethnography to articulate gender discriminations in accessing available health care services of the two marginalized indigenous communities of Bangladesh.

### LESSONS LEARNED

The study suggests that age, level of education, occupation, and distance to service centres, infrastructure, socio-economic status and cultural issues are important determinants of healthcare-seeking behaviour among these two indigenous communities. The research finds out the indigenous women are the worst victims of multiple discriminations in terms of wage, inheriting land rights, and accessing primary health



care services. The structural alienation and discrimination towards underprivileged indigenous groups in accessing antenatal and postnatal care, delivery at births, and other life-threatening morbidities signify their poor health, low life expectancy and poorer quality of life.

#### IMPLICATIONS

Indigenous women in the indigenous communities are engaged in productive and reproductive work load which undermines their health and life chances. The rhetoric of constitutional obligation, fundamental human right and gender justice for ensuring healthcare service to disadvantaged women and marginalized people of Bangladesh is reflected on inequitable policy and practices. Despite resource constraints and mismanagement in health sector, this research invokes for human rights- based approach for equitable policy implications for improved health of indigenous women in Bangladesh.

### Implementing a Pragmatic Controlled Trial in Australia: The Kanyini — Guidelines Adherence to Polypill Study

*Luciana Massi<sup>1,2</sup>, Tracey-Lea Laba<sup>1</sup>, Hueiming Liu<sup>1</sup>, Stephen Jan<sup>1,2</sup>, PEAK Study Team*

<sup>1</sup>George Institute for Global Health; <sup>2</sup>University of Sydney

P60, Poster

#### OBJECTIVES

In contrast to traditional randomised controlled trials, pragmatic controlled trials (PCTs) attempt to bridge evidence-translation gaps. The Kanyini-Guidelines Adherence to Polypill (K-GAP) study was a PCT conducted within Australian primary practice across five states, seeking to improve patient and prescriber adherence to guidelines-recommended treatment for primary and secondary cardiovascular disease in Indigenous and non-Indigenous settings. This study aims to determine the barriers and facilitators of implementing a PCT within Australian general practice.

#### METHODS

Qualitative interviews were conducted with 47 healthcare providers (HCPs) — pharmacists, general practitioners, Aboriginal health workers — and 47 patients from primary care practices in urban, rural and remote Australian communities. Interview questions addressed trial conduct, determinants of adherence, polypill acceptability and research translation.

#### LESSONS LEARNED

Patient load, appropriate infrastructure, underlying research interest and PCT ownership by Aboriginal communities were key factors in the trial's feasibility. Challenges included excessive paperwork and patient recruitment. Facilitators included: onsite research nurses, coordinating centre support, streamlined processes, and good external HCP communication. Patients' motivations included a desire to benefit the greater good and shared decision-making with their HCP. Overall, the PCT was well received and collaborations were strengthened.

#### IMPLICATIONS

Despite the general acceptance of the intervention by most patients and providers, implementing this PCT was challenging. Complexities included the diversity of general practices across the different settings, and the lack of underlying research infrastructure. Strategies to overcome barriers and strengthen support in conducting PCTs should increase research interest and capacity in the Australian primary healthcare setting.

### How Does Use of the Systems Assessment Tool Assist Quality Improvement in Primary Health Care Services?

*Frances C. Cunningham, Gill Schierhout, Jenny Brands, Jenny Hains, Ross Bailie*

Centre for Primary Health Care Systems, Menzies School of Health Research, Brisbane

P62, Poster

#### OBJECTIVES

A vital part of integrated quality improvement (QI) processes is assessment of the quality of primary health care (PHC) centre systems. We describe development of the Systems Assessment Tool (SAT) based on the Assessment of Chronic Illness Care (ACIC) scale, and our experience with employing the SAT in QI in Indigenous PHC.

#### METHODS

We draw on experience with use of the SAT from 2002 in 12 health centres in the Audit and Best Practice for Chronic Disease (ABCD) project, to its current use in 165 centres using the CQI tools developed through the ABCD program of research. As part of the data collection phase of the CQI cycle the SAT is used to engage health centre teams in assessment of the quality of centre systems, with assessment data being entered into the One21seventy web-based information system. The SAT is usually undertaken in conjunction with reflection on health centre specific clinical audit data on various priority aspects of PHC, e.g., chronic illness, preventative, maternal, child, mental health care.

#### LESSONS LEARNED

Analysis of audit data shows completion rates of SATs accompanying clinical audits vary across states and territories and over time (30%–100%), but are generally at a high level. We report on provider perceptions of strengths and limitations of the tool in CQI, and describe variation in the way it is used. Originally designed as a measurement tool, over time the SAT has become an important developmental tool, enabling team learning about PHC system functioning in relation to articulated best practice, and contributing to team strengthening. Participant feedback has identified the need for centres to have adequate support to undertake the SAT to improve the quality of systems assessments.

#### IMPLICATIONS

The SAT has demonstrated its importance as a component of the CQI cycle, based on clinical audit and SAT feedback for action planning and implementation.

### Doing Better with Less: Improving Venous Ulcer Healing with an Innovative Compression System

*Carolina Weller<sup>1</sup>, Sue Evans<sup>1</sup>, Margaret Staples<sup>1</sup>, Pat Aldons<sup>2</sup>, John McNeil<sup>1</sup>*

<sup>1</sup>Department of Epidemiology & Preventive Medicine, School of Public Health & Preventive Medicine, Monash University; <sup>2</sup>Prince Charles Hospital

P63, Poster

#### OBJECTIVES

Multi-component compression is best practice treatment for venous leg ulcers (VLU), but many compression systems are not well tolerated, are unaffordable and are challenging to apply. The objective of this study was to compare a novel three layer (3L) tubular bandage with short stretch compression bandage (SS) for treatment of people with venous ulcers.

#### METHODS

This multicentre randomised controlled trial (RCT) recruited 46 participants with VLU from wound clinics in Victoria and Queensland, Australia. Outcome measures included per cent wound reduction from baseline compared to week 12 following randomisation, proportion of ulcers healed, Quality of Life measures (SF36 and Cardiff Wound Impact Schedule), patient-reported bandage adherence, recurrence rates at 3 months post healing and cost effectiveness. Outcome assessment was blinded.

#### LESSONS LEARNED

The proportion of healed ulcers was higher for 3L bandage group [17/23 (74%) vs. 10/22 (46%) (p=0.05)]. Mean ulcer percentage reduction for 3L group was 82.4% vs.70.1%. Health-related quality of life scores improved but differences between groups were not significant. Six of the 27 healed ulcers recurred within 3 months (p=0.83). Cost per ulcer healed in 3L group was A\$200 vs. A\$618 in SS group (p = 0.0001).

#### IMPLICATIONS

The 3L compression system was well tolerated and more cost effective than the SS bandage group. This RCT has demonstrated that 3L compression bandage improves healing rates in people with venous ulcers. Easy application, less limb pain and greater comfort improved adherence to 3L compression system contributed to healing outcomes.

### Organisation and Costs of Health Services for Children with Rare Lung Disease: Will Activity Based Funding Match Actual Costs?

*Y. Zurynski, N. Hime, M. Deverell, P. Robinson, D. Fitzgerald, A. Jaffe, H. Selvadurai*

P64, Poster

#### OBJECTIVES

Little is known about health services use, organisation and costs for

children with rare chronic conditions. By describing a case of Children's Interstitial Lung Disease (ChILD) we aim to illustrate the significant impacts of rare complex, chronic conditions on health services.

#### METHODS

A detailed medical records review detailing frequency and types of health services used including specialist services, procedures and operations, pathology, imaging and allied health. To analyse the direct costs of health services, costing data were extracted from Management Support and Analysis Unit database at the Children's Hospital at Westmead (CHW).

#### LESSONS LEARNED

The case of ChILD (born 2004) accounted for 32 admissions (5 to local hospital, 27 to tertiary hospitals), 10 presentations to Emergency Department (8 local hospital, 2 CHW), and 18 outpatients clinic visits at CHW. The child spent 384 days in tertiary hospitals, including 298 days in Intensive Care Units (ICU), and 61 days in a local hospital. The direct inpatient service costs to CHW from birth to June 2012 amounted to \$801,048. Additional costs included an estimated \$104,921 for a lung transplant (Alfred Hospital, Melbourne) and \$46,584 for an emergency admission to ICU at the Sydney Children's Hospital, Randwick. Total estimated inpatient costs: \$952,554.

#### IMPLICATIONS

The cost of treating children with rare chronic and complex conditions is high. We need to recognise the significant impacts of rare chronic and complex conditions in children and to ensure that AR-DRGs are assigned appropriately to cover actual health service costs.

### Nursing Productivity: An Integrative Review

*Mark Petrich*

*Curtin University*

P65, Poster

#### OBJECTIVES

To review the evolution of nursing productivity research and thus determine the subsequent state of the science.

#### METHODS

Integrative review of peer-reviewed literature with keywords nursing and productivity in title or abstract. All abstracts reviewed. Opinion, conceptual and empirical studies included where nursing productivity is central to the paper. Quality assessed using measures of methodological coherence. Analysed by chronology, paper type, setting, and nurse type.

#### LESSONS LEARNED

Nursing productivity research has evolved. Early research in the 1980s utilised descriptive case studies illustrating measures of nursing productivity to inform nursing management. Focus was technical, performance measures such as direct and indirect patient hours, slack time, nursing and non-nursing tasks. Self-report and time studies were frequent. These papers were justified by systemic workforce shortages and pressures to cut costs. Contemporary research on nursing productivity has multiple diverse threads including; scholarly productivity and relationship between academic and clinical practice; impact of occupational health nurses on general organisational productivity; and impact of various job stress variables on nurse productivity. More studies of nursing productivity now consider wider factors such as use of other workers, different patterns of work including interprofessional collaboration, use of informational and decision support technology.

#### IMPLICATIONS

A shift from short term efficiency improvements through work intensification to longer term productivity gains require; analysis at different levels from system to unit; use of research methods to complement production functions; strategies to balance relative efficiency with opportunities for innovation.

### Urban-Based Nursing Innovations to Improve Access to Health and Health Services

*Katherine Nelson<sup>1</sup>, Eileen McKinlay<sup>2</sup>, Kerri Arcus<sup>3</sup>*

<sup>1</sup>Victoria University of Wellington; <sup>2</sup>University of Otago; <sup>3</sup>Whiteria New Zealand

P66, Poster

#### INTRODUCTION

Working differently is one way that nurses improve access to health and health services. This presentation brings together the learnings from three nursing innovations developed to address the health needs

of three different population groups living in an urban region of New Zealand. These groups were people who attended a government funding agency for income and welfare support, people who were unemployed for health related reasons, and the people (children/families) who lived in a 'stretched' community.

#### METHODS

A case study of 3 innovations was undertaken and the learnings identified.

#### LESSONS LEARNED

Findings across the innovative services concerned the nurses taking the time to get to know their setting and what other services were in place or resources available and using this information to work in partnership with individuals and groups. The nurses used personal and systems advocacy and approaches to support individuals and groups to bring about change. Changes for individuals included returning to work and gaining access to health services to address unmet health and for the groups included programs in schools related to nutrition, education and minimising risk and in workplaces related to identifying health need and working with people with mental health need.

#### IMPLICATIONS

Key attributes the nurses' utilised were their assessment and communication skills, their respect for the community and their understanding and ability to recognise, work with and enhance individuals and communities potential. Learning different ways to partner with communities is important to improve access to health and health services.

### Standardised Mortality Ratios Are Not All the Same!

*Kerrin Bleicher<sup>1,2</sup>, Sadaf Marashi-Pour<sup>1</sup>, Douglas Lincoln<sup>1</sup>*

<sup>1</sup>Bureau of Health Information; <sup>2</sup>University of Sydney

P67, Poster

#### OBJECTIVES

The aim of this study was to examine the influence of different case mix adjustments and four modelling methods on standardised 30 day mortality ratios (SMRs) following an ischemic stroke.

#### METHODS

A primary diagnosis of ischemic stroke was identified in 9,704 patients from the 2009–10 NSW Admitted Patients Data set. We compared the contribution of the Charlson score and Elixhauser comorbidities to predict 30 day mortality using the c-statistic. We then incorporated the different comorbidity groups into four different modelling methods [1] to calculate SMRs. Differences in SMRs for each hospital were compared.

#### LESSONS LEARNED

The modelling **method** used to create an SMR had a more substantial impact on the SMR than comorbidity adjustment. Age was the most important patient level risk factor for 30 day mortality. The addition of Charlson, and Elixhauser comorbidities improved the prediction, but only minimally. The c-statistic with age alone was 0.70 (reflecting reasonable prediction). After additional adjustment with the Charlson score the c-statistic was 0.72. After adjustment with Elixhauser the c-statistic was 0.74. One of modelling methods calculated the ratio based on predicted number of deaths/expected deaths. This method centred SMRs around the state average. The other modelling methods created SMRs that were more spread out.

#### IMPLICATIONS

SMRs are not all the same. Some SMRs are more conservative and detect fewer outliers. There is a balance between modelling methods that are very sensitive and identify more outlying institutions, and methods that do not identify differences as readily. The choice of modelling method will depend on your purpose.

#### REFERENCES

- [1] Mohammed MA, Manktelow BN, Hofer TP. Comparison of four methods for deriving hospital standardised mortality ratios from a single hierarchical logistic regression model. *Statistical Methods in Medical Research* 2012.

## What Does a Sustainable Continuous Quality Improvement Model Look Like? Lessons from an Australian Indigenous Research Partnership

*Karen Gardner<sup>1</sup>, Beverly Sibthorpe<sup>1,2</sup>, Dan McAullay<sup>1,2</sup>, Michelle Dowden<sup>2</sup>, Mier Chan<sup>1</sup>*

<sup>1</sup>Australian Primary Health Care Research Institute; <sup>2</sup>Aboriginal Health Council of Western Australia

P72, Poster

### OBJECTIVES

There has been a decade of investment in Continuous Quality Improvement (CQI) in Aboriginal and Torres Strait Islander health services, but CQI activities have not been embedded in everyday practice in many services. This study aimed to conduct a critical review of the literature to identify strategies that may be incorporated into a sustainable CQI model in Aboriginal and Torres Strait Islander health services.

### METHODS

We searched systematic reviews to identify studies examining the effectiveness of different strategies used internationally in CQI programs for indigenous and underserved populations. We identified Australian CQI programs and their evaluations and drew on our experience as researchers and providers in this area to identify the components of a sustainable CQI model.

### LESSONS LEARNED

Australian programs have used internationally recognised CQI processes including Plan:Do:Study:Act (PDSA) cycles but there has been a focus on improving primary health care management systems with insufficient attention to supporting improvements in the delivery of client-focused care and integrating CQI processes with performance reporting processes. Additionally, developments in information technology have not been adequately utilised to reduce barriers associated with isolation in remote settings. These have shown promise for supporting health literacy, social support and access to health information in underserved populations internationally.

### IMPLICATIONS

Elements of a sustainable model should include community-controlled clinical governance; clinic manager training and support; rapid PDSA cycles; and a focus on supporting uptake of information through the use of new information technologies. Capacity building of indigenous staff and integration of CQI processes with reporting and billing are priorities.

## The Australian Centre for Health Services Innovation: Building Health Services Research Capacity in Australia

*Megan Campbell<sup>1</sup>, Adrian G. Barnett<sup>1</sup>, Jason Roberts<sup>1,2</sup>, Alison Mudge<sup>1,2</sup>, Naomi Daly<sup>1,2</sup>, Nicholas Graves<sup>1</sup>*

<sup>1</sup>Queensland University of Technology; <sup>2</sup>Royal Brisbane and Women's Hospital

P73, Poster

### OBJECTIVES

The Australian Centre for Health Services Innovation (AusHSI) was established in 2011 to build research capacity, fund projects that improve health services, improve research skills, and drive research translation through improved decision making.

### METHODS

AusHSI offers Stimulus Grants and PhD Scholarships. Applications are short, online, and require no references or track record. Applications are reviewed by 2 panel members, with the highest ranked progressing to panel discussion, then interview. Submission to notification takes just 6 weeks. All projects must have a strong partnership between a practicing healthcare worker (HCW), and an academic. Comprehensive and unambiguous feedback is given to all applicants. Common weaknesses in the applications are used to develop targeted training programs, such as cost effectiveness workshops. AusHSI works with successful applicant to quantify the cost savings of their innovation, and then helps them engage directly with decision makers.

### LESSONS LEARNED

Strong partnership between academics and health professionals couples scientific rigour with real-world experience. The tiered application process minimises time costs for unsuccessful applicants, and giving comprehensive feedback in a timely manner allows unsuccessful applicants to improve their ideas. Many other funding

schemes waste researchers' time with lengthy applications, and "stop at the water's edge" with translation. AusHSI aims to be different by using an innovative approach to funding and managing health services research.

### IMPLICATIONS

By making an easier, faster, better funding scheme; by engaging key stakeholders; and giving researchers the skills and opportunities to translate their research, AusHSI will improve health services in Australia.

## Experience Talks, Resilience Shapes — Revisiting Historic Trauma: Impact on Treatment in Aboriginal Males Living with HIV/AIDS in British Columbia

*Meck Chongo<sup>1</sup>, Josée G. Lavoie<sup>1</sup>, Henry Harder<sup>1</sup>, Robert Hogg<sup>2,3</sup>, Eric Roth<sup>4</sup>*

<sup>1</sup>University of Northern British Columbia; <sup>2</sup>Simon Fraser University; <sup>3</sup>British Columbia — Center for Excellence in HIV/AIDS; <sup>4</sup>University of Victoria

P76, Poster

### INTRODUCTION

HIV incidence, prevalence and mortality are over-represented in the Aboriginal population. HIV eradication is not yet possible therefore persons must take highly active antiretroviral therapy (HAART) regularly. However, many Aboriginal males do not adhere to therapy partly because they have unresolved trauma secondary to the residential schools legacy. Most research on HIV/AIDS therapy has focused on maladaptive characteristics of Aboriginal males and less on their adaptive, life-maintaining characteristics or on how much historic trauma (HT) impacts one's choice to take up and adhere to therapy. HT in Aboriginal males living with HIV and AIDS therefore needs to be revisited to gain insight into why and how people make their choices, to explore areas of strength, and help inform policy.

### OBJECTIVES

- To explore the impact of HT on therapy in Aboriginal males living with HIV/AIDS in British Columbia (BC);
- To explore the role of resilience in dealing with HT; and
- To offer culturally-safe recommendations to better address HT, aimed at improving treatment-seeking behavior, adherence to therapy and reducing deaths due to HIV/AIDS.

### METHODS

Aboriginal males from Vancouver, 15–64 years old, currently on HAART will be recruited through purposive sampling. Ethics approval will be sought from the University of Northern BC, and Tri-Council Policy Statement provisions followed. Qualitative interpretive description will be used, and a cultural safety lens applied. Participant consent will be obtained. Sixteen in-depth interviews and one focus group discussion will be conducted, transcribed and coded. Trustworthiness of data will be ensured and thematic analysis conducted.

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Broad, Joanna B.	2E.6	39
Brogan, James	1D.5	28
Brown, Alex	2F.5	41
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Brown, Lynsey	3B.5	45
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Brown, Stephanie	3C.2	46
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Fewquandie, Barry	3F.1	51	Hanley, Francine	3C.1	46		1E.2	29
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Fletcher, Justine	1D.2	27	Havard, Alys	3A.6	44		5A.2	63
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Forshaw, Kristy	2F.1	40		4E.4	60	Kearns, Robin A.	1B.6	25
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Gardner, Karen	5D.1	68	Hoffman, Ross	4F.1	60	Kenny, Patsy	1B.1	23
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	5B.3	65	Horsburgh, Simon	1E.3	29	Kimman, Merel	3C.3	46
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Georgiou, Andrew	4E.6	60	Hosseinzadeh, Hassan	4A.1	52	King, Michelle	2D.3	37
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Gillespie, James A.	2E.5	39	Ingram, Suzanne	3F.1	51	Kynoch, Kathryn	4A.3	53
Girosi, Federico	4E.2	59		3F.3	51	<b>L</b>		
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Gold, Lisa	4B.5	55	Islam, Tasneem	P16	73		P57	80
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	2B.1	33		5B.5	66	Landgren, Fiona	1C.2	25
	4B.6	55	Jaffe, A.	P64	81		4C.1	56
Gorelik, Alex	P1	70	Jan, Stephen	2D.4	37	Langton, Julia	2E.3	38
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Graves, Nicholas	P73	83		3E.2	49		1E.4	29
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Green, Michael	4F.4	61	Johnson, Julie	1A.2	22			
	4F.5	62		4E.6	60			
Griffin, Jodie	1C.3	26		P2	70			
	3D.1	47	Johnson, Richard	4F.2	61			
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	3F.2	51	McLeod, Lisa	P53	79		2C.5	36
	4D.4	58	McMillan, Sara	2D.3	37	Pain, Tilley	P40	76
	4F.1	60	McNeair, Tracy	3D.1	47	Panko, Nila	P52	79
	4F.4	61	McNeil, John	P63	81	Panzer, Annette	1E.4	29
	4F.5	62	McNeill, Rob	2B.4	34	Park, Andrea	1C.1	25
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Leggat, Sandra G.	4A.2	53		3A.5	43		P44	77
	4C.4	57		3D.3	48	Patterson, Sandra	4F.4	61
Lennon, Diana	4B.3	55		4E.2	59	Paul, Christine	2F.1	40
Leon de la Barra, Sophia	5B.3	65		4E.5	60	Pavlovich, Kathryn	P45	78
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Levack, William	4C.2	56		5C.4	67		P60	81
Levickis, Penny	4B.5	55		5C.5	67	Pearson, Sallie-Anne	2E.2	38
Lewis, Virginia	3C.1	46		P21	73		2E.3	38
Leyland, Alastair	4E.3	59	McWilliam, Leonard	4F.4	61	Peiris, David	3F.1	51
Liddicoat, Linda	1B.5	24	Meachen, Michele	2E.5	39		3F.3	51
Lincoln, Douglas	2A.1	32	Mead, Cathy	3C.1	46	Pekarsky, Brita	5A.4	64
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Lisy, Karolina	2F.6	41	Mentha, Ricky	3F.1	51	Perera, Roshan	P4	70
Liu, Gouyuan	4F.4	61		3F.3	51		P5	71
Liu, Hueiming	2D.4	37	Middleton, Lesley	P50	79	Petrich, Mark	P65	82
	3F.1	51	Mild, Kathrin	4C.6	57	Pham, Clarabelle	5A.2	63
	3F.2	51	Mills, Jane	1E.4	29	Pham, Mai	1E.5	30
	3F.3	51		P30	75	Phillips, Christine	P30	75
	P60	81	Milne, Richard J.	4B.3	55	Phillips-Beck, Wanda	1F.1	30
Livingston, Michael	1C.5	26	Mohamed, Justin	3F.4	51	Pirkis, Jane	1D.2	27
Livingston, Patricia	4C.1	56	Moorin, Rachael	3D.4	48		1D.3	27
Localio, Russell	P53	79		5A.1	63		1D.5	28
Lockwood, Craig	2F.6	41		P3	70	Pledger, Megan	P50	79
Lorimer, Michelle	3A.4	43		P17	73	Potter, Nichola	2F.5	41
Lowthian, Judy	4C.5	57	Morello, Renata	1C.2	25		3F.6	52
Luan, Xianqun	P53	79		4A.5	53	Poutasi, Catherine	5D.4	69
Lubman, Dan I.	3A.1	42		4C.1	56	Powell Davies, Gawaine	5B.1	65
Lujic, Sanja	2A.2	32		P1	70	Pratt, Nicole	P27	74
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Lumley, Thomas	2E.6	39		P4	70	QUALICO-PC Canadian grp	5C.6	67
Lung, Tom	4B.4	55		P5	71	Quinn, Stephen	4A.6	54
Luxford, Karen	PL7.1	69	Morris, Jonathan	P39	76			
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			Murray, Richard	1E.4	29	Rahmann, Ann	P36	75
			Mussell, William	4F.2	61	Ramamurthy, Vijaya L.	4D.2	58
							4E.4	60
<b>M</b>						Randall, Deborah	2A.2	32
Ma, Tracey	4F.5	62	Nelson, Katherine	2A.3	32	Rasmussen, Victoria Avefua	2C.1	35
Macarayan, Eryln Rachelle	2D.5	37		3C.6	47	Read, Teresa	P38	76
MacGeorge, Jane	P38	76		P66	82	Reading, Jeffrey L.	PL1.2	22
Machlin, Anna	1D.2	27	Neuwelt, Pat M.	1B.6	25	Rees, Gareth H.	5A.6	64
	1D.3	27		2B.4	34	Reeve, Rebecca	2E.2	38
MacLeod, Martha L.P.	1B.4	24	Nicholas, Angela	1D.2	27	REFinE Team	1B.3	24
Macmillan, Jenny	3C.1	46		1D.3	27		2B.1	33
Mah, Sharon	2F.2	40	Nicholas, Graeme	1A.1	22		P31	75
Marashi-Pour, Sadaf	2A.1	32	Nicholas, Nick	4E.6	60	Reid, Susan	2F.3	40
	P67	82		P2	70	Reidy, Johanna	1A.4	23
Mark, Glenis	1F.3	31	Nicholson, Caroline	3B.1	44	Reifels, Lennart	1D.2	27
Marsh, Geraldine	3C.1	46	Nickel, Nathan	1A.6	23		1D.3	27
Marshall, Caroline	1D.4	28	Nippita, Tanya	P44	77	Reilly, Sheena	4B.5	55
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Martens, Patricia	1A.6	23				Reschny, Jamie	1A.5	23
Martin, Geraint	PL1.1	22	<b>O</b>			Rickards, Bernadette	3F.1	51
Martin, Gregory	P52	79	O'Connell, Beverly	P16	73		3F.2	51
Massi, Luciana	2D.4	37	O'Connell, Lyn	5A.5	64		3F.3	51
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Mathews, Veronica	3F.5	52	O'Leary, Peter	4D.2	58	Riitano, Dagmara	2F.6	41
Mays, Nicholas	PL5.1	62		4E.4	60	Rissel, Chris	4B.4	55
Mazumdar, Soumya	4E.2	59	Oliver-Baxter, Jodie	3B.5	45	Roberts, Christine	3A.6	44
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Russell, Lynne	2F.4	40	Tierney, Jennifer	3B.4	45	Yen, Laurann	3D.3	48			
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