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Addressing Health Service Inequities to Improve Health System Performance

Pullman Hotel Auckland, New Zealand

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CONTENTS

Select the session to jump to the list of presentations with quick links to each abstract.

Wednesday 4 December, 2019

Session 1

- 1A Indigenous Health Data and Decision-Making Research Symposium
- 1B Health Economics
- 1C Big Data Symposium
- 1D Mental Health Symposium
- 1E Improving Primary Care Systems
- 1F Health Pathways Symposium
- 1G Priority, Vulnerable and Marginalised Populations
- 1H Research Translation

Session 2

- 2A Indigenous Cultural Safety Symposium
- 2B Local Health Services Evaluation Symposium
- 2C Pacific Populations and Integrated Services Symposium
- 2D Establishing Effective Research Partnerships Symposium
- 2E PROMS Symposium
- 2F Performance in Primary Care
- 2G: Health Care Quality Intervention
- 2H Big Data

Session 3

- 3A HSR and indigenous services and communities
- 3B HSR and indigenous services and communities
- 3C E-Health
- 3D Preventing Hospital Admissions
- 3E Three Minute Thesis Competition
- 3F Clinical Governance & Decision-Making
- 3G Health System Inequities
- 3H Implementation

Thursday 5 December, 2019

Session 4

- 4A HCF Research Foundation Sub Plenary Symposium - Reducing Unnecessary Hospital Admissions And Complications
- 4B Fundamentals Of Care - An Equity Framework Sub Plenary Symposium
- 4C Integrated Knowledge Translation Sub Plenary Symposium

Session 5

- 5A Kaupapa Maori Symposium
- 5B Pharmaceuticals and Pharmacists
- 5C Registry Science Symposium
- 5D Continuity of Primary Care Symposium
- 5E Cancer Services
- 5F Advances in HSR Methods
- 5G Integrated Care Innovations Symposium
- 5H Long Term Conditions

Session 6

- 6A Indigenous Womens' Hiv Services Symposium
- 6B Public Input In Health Prioritastion Symposium
- 6C Equity, Access And Outpatient Waiting Times Symposium

6D Quality of Aged Care Services Symposium
6E Co-Designing Childhood Obesity Research Symposium
6F Partnerships in Improvement: Patients, Providers and Researchers
6G Pharmacists, Health Outcomes And Equity Symposium
6H Sustainable Integrated Care Symposium
6I Pharmacy And Health Equity Symposium

Session 7

7A HSR and indigenous services and communities
7B Health Economics
7C ED Research
7D Health Care Variation
7E Child Health
7F Health Workforce
7G Researching Health Systems & Services
7H Cancer Services
7I Pharmacy Practice and Medicines Research

Friday 6 December, 2019

Session 8

8A HSR and indigenous services and communities
8B Health Economics
8C Health Systems Performance
8D Data Linking
8E Interprofessional Teams
8F Mental Health
8G Patient Experience
8H Genomic Medicine Symposium
8I Primary Care, Patient Empowerment And Technology Symposium

Session 9

9A HSR and indigenous services and communities
9B Health Economics
9C Integrated Data and HSR Symposium
9D Improving Quality in Health in Services
9E Interventions to Improve Access
9F The state of HSR in Australia and New Zealand and new funding opportunities
9G ASPREE - Opportunities For Studying A Community Population of Seniors Symposium

POSTERS

WEDNESDAY 4 DECEMBER 2019

Concurrent sessions 1A - 1H

1A Indigenous Health Data and Decision-Making Research Symposium |

1A.1 13:05 | Using health data to effect improvements in Māori health outcomes. Symposium Lead Amohia Boulton Whakauae Research Services, New Zealand. Presenters: Amohia Boulton, Heather Gifford, Whakauae Research Services; Donna Cormack, Te Kupenga Hauora Māori, Auckland University; Bridgette Masters-Awatere, Māori & Psychology Research Unit, Waikato University; Kiri Parata, Independent Researcher, Te Atiawa ki Waikanae, Ngāti Raukawa, Ngāti Toarangatira, Ngāti Ruanui, Ngāi Tahu, Steve Perry, Tui Ora, New Zealand

1B Health Economics |

1B.1 13:05 | A cost-benefit analysis of the implementation of an evidence-based dementia care program in the Australian health context. Miia Rahja, Flinders University Australia

1B.2 13:20 | A health economic approach to modelling the equity impact of childhood obesity interventions. Anagha Killedar, University Of Sydney Australia

1B.3 13:35 | Burden and cost of pelvic and lower limb injuries from road traffic crashes, in Queensland. Victoria McCreanor, Jamieson Trauma Institute Australia

1B.4 13:50 | Cost effectiveness analysis of a supervised exercise intervention for prostate cancer patients with bone metastases. Kim Edmunds, Centre for Applied Health Economics Australia

1B.5 14:05 | Cost of community treatable emergency department presentations. Josh Byrnes, Centre for Applied Health Economics Australia

1B.6 14:10 | Use of Return on Investment (ROI) for local decision making. Adriana Nunez, University of California, Merced United States

1C Big Data Symposium |

1C.1 13:05 | Use of big data and data linkage for health services research: feasibility, challenges and opportunities. Symposium Lead: Nadine Andrew, The University of Western Australia, Australia. . Presenters: Nadine Andrew, Monique Kilkenny, Monash University; Frank Sanfilippo, Derrick Lopez, The University of Western Australia, Australia

1D Mental Health Symposium |

1D.1 13:05 | Development of a needs-based planning model for mental health services in Australia: the National Mental Health Service Planning Framework. Symposium Lead: Sandra Diminic, The University of Queensland, Australia. Presenters: Sandra Diminic, Charlotte Woody, Imogen Page, Kate Gossip, Queensland Centre for Mental Health Research, The University of Queensland Australia

1E Improving Primary Care Systems |

1E.1 13:05 | Redesigning systems of care around population health needs- learnings from a large primary health organisation. Sue Wells, ProCare PHO New Zealand

1E.2 13:20 | Can mergers foster organisational legitimacy? A follow-up study of two merged independent community health organisations from Victoria, Australia. Veronique Roussy, Monash University Australia

1E.3 13:35 | Reducing Inequities: What can we learn from organisations working in partnerships? Elizabeth Disney, University of Otago New Zealand

1F Health Pathways Symposium |

1F.1 13:05 | Evaluation of the impact of HealthPathways on the design and integration of health services in Sydney Local Health District. Symposium Lead: Sarah Norris, University of Sydney. Presenters: Sarah Norris, Menzies Centre for Health Policy; Sally Wortley, Kate Applegarth, University of Sydney Australia

1G Priority and Marginalised Populations |

1G.1 13:05 | Optimising access to dental care for people experiencing homelessness. Nicole Stormon, The University of Queensland Australia

1G.2 13:20 | Counting the cost: A retrospective chart review of admissions and length of stay for children with Intellectual Disability across two tertiary paediatric hospitals. Laurel Mimmo, University of New South Wales/Sydney Children's Hospitals Network Australia

1G.3 13:35 | Disrespect and Abuse during Childbirth in Western Ethiopia: Should Women Continue to Tolerate? Firew Bobo, University of Technology Sydney Australia

1G.4 13:40 | The vision rehabilitation gap in three regions of New Zealand. Keith Gordon, New Zealand Blind Foundation New Zealand

1G.5 13: 45 | Uptake and cost of early supported discharge and hospital in the home in Australian public hospitals: a study protocol. Emma Gearon, Cabrini Institute Australia

1G.6 13:50 | What are the outcomes for children with attention deficit hyperactivity disorder in Child and Youth Mental Health community clinics? Leanne Winter, The University of Queensland Australia

1G.7 13:55 | Improving care for people with mild cognitive impairment. Tilley Pain, JCU Australia

1H Research Translation |

1H.1 13:05 | Knowledge translation plan guides: A pragmatic, conceptual synthesis. Chris McCutcheon, Ottawa Hospital Research Institute Canada

1H.2 13:20 | An evaluation of research investment and impact at a regional Australian Hospital and Health Service. Alexandra Edelman, Townsville Hospital and Health Service Australia

1H.3 13:35 | How do Academic Health Centres in Australia enact their translational role: results of a scoping study. Gill Harvey, University of Adelaide Australia

1H.4 13:50 | Integrating research evidence into project management: Creating a culture of evidence-informed decision-making. Maria Larcombe, University of Otago; Courtney Harper from Counties Manukau Health, New Zealand

1H.5 14:05 | Reporting health research translation and impact in the curriculum vitae: a survey of an international cohort. Dawn Stacey, University of Ottawa Canada

1H.6 14:10 | Overview of reviews on principles, strategies, outcomes, and impacts of research partnership approaches. Ian Graham, University of Ottawa Canada

Using health data to effect positive improvements in Māori health outcome

Symposium Lead: Dr Amohia Boulton, Whakauae Research Services

Rationale for Symposium: To highlight how decision-makers and health leaders can use health data to effect positive improvements in Māori health outcome at the DHB level.

Topic description:

Disparities in health outcomes between Māori and non-Māori have been widely recognised as a major focus for health system improvement in Aotearoa New Zealand (Gauld et al 2011; Pega et al 2014). While some gains have been made, issues concerned with the collation, access and use of data have been identified as one reason for the slow progress in reducing disparities (Coster 2004; Suckling et al 2015). There is an increased appetite, and need, for data to inform decision-making. However, a key challenge for both Māori and organisational decision-makers is to use data in ways that lead directly to improvements in health services for Māori and, therefore, a reduction in disparities.

In this symposium we showcase three separate research studies which have, or are currently, using routinely collected health and administrative data to effect positive improvements in Māori health outcome in specific DHBs. Each of the three studies will present a “problem definition” (ie the issue which was studied in the research); the research design and methodology which was employed in the study; and the results from each of the studies. Cross cutting themes across the three presentations include kaupapa Māori methodology; collaboration; the role of decision-makers and champions; and the transformational nature of research outcomes.

Presentation one

The Data, Decision-making and Development Project: Findings from the Cases

Authors and affiliations

Amohia Boulton, Whakauae Research Services

Heather Gifford, Whakauae Research Services

Overview:

The Data, Decision-making and Development (D3) Project is a three-year HRC-funded study utilising participatory action research methods within a case study design. The project seeks to explore how routinely collected Māori specific health data, gathered at the DHB level and reported by the Ministry of Health, can be optimally used by Māori and DHB decision-makers, to stimulate improvements in health outcomes for Māori. We will present findings from the first two years of the project highlighting the processes, resources and skills required to understand DHB-level data and transform that data into actions that impact positively on Māori health service delivery.

Presentation two

Using statistics and narratives to influence change for Hospital Transfers

Authors and affiliations

Dr Donna Cormack, Te Kupenga Hauora Māori, Auckland University

Dr Bridgette Masters-Awatere, Māori & Psychology Research Unit, Waikato University

Overview:

The presenters are the co-PIs of an Indigenous-led project: Hospital Transfers - Whānau Involvement in the Healing Equation. The pair will discuss the project results and describe areas they worked with Waikato DHB and MoH to influence policy review and service delivery. A comprehensive understanding of patterns of hospital transfers, system-based resources and experiences (whānau and clinicians) all played a critical part in Māori whānau involvement in the health care equation. Whānau-directed engagement in care has shaped consideration of the implications for broader health policy and practice environments to support Māori health outcomes.

Presentation three

Outcomes Reporting for Change: Learnings from the Te Kawau Mārō Alliance Leadership Team

Authors and affiliations

Kiri Parata, Independent Researcher, Te Atiawa ki Waikanae, Ngāti Raukawa, Ngāti

Toarangatira, Ngāti Ruanui, Ngāi Tahu

Steve Perry, Business Analyst Tui Ora

Overview:

The Te Kawau Mārō Alliance Leadership Team (ALT) is a Māori health governance group. Membership is drawn from executives of Taranaki District Health Board, Tui Ora, Ngāti Ruanui and Ngāruahine. Recently the ALT has overseen the design thinking process for Māori provider services/whānau connected with the “All Children Have the Best Start in Life” outcome, resulting in an Outcomes Reporting process. This type of reporting provides the ALT with in-depth knowledge to make changes to systems, processes and potentially contracts and provides a platform where the identification of some external system barriers for whānau and services is highlighted and discussed.

A cost-benefit analysis of the implementation of an evidence-based dementia care program in the Australian health context

Miia Rahja^{1,4}, Kim-Huong Nguyen^{2,4}, Kate Laver^{1,3}, Lindy Clemson^{3,4}, Maria Crotty^{1,4} and Tracy Comans^{2,4}

¹Flinders University, ²The University of Queensland, ³ The University of Sydney, ⁴ Cognitive Decline Partnership Centre

Objective

Evidence-based interventions that enhance function and capability in people with dementia are currently being implemented in Australia. What is not known is the economic and societal outcomes of these intervention implementation to the Australian health and aged care system. The main objective of this study is to identify the costs and benefits of implementing an evidence-based reablement program, Care of People with dementia in their Environments (COPE), within Australian health context. The secondary aim is to assist policy makers in appraising the program potential for more widespread adoption.

Methods

A cost-benefit analysis was completed using a methodology familiar to governments and decision makers. The costs and benefits of implementing COPE in Australia were calculated using four different perspectives: market, private, efficiency (social) and referent group (key stakeholders). The analysis was completed for the duration of the program implementation (until 2019) and a further five-year projection for the program adoption in Australia (until 2024).

Lessons learned

The program implementation can produce almost A\$6.2 million societal gain. The referent group analysis demonstrates that people with dementia and their caregivers are the bearers of the costs and; the Australian health and social care system gains the most from the program implementation.

Implications

There is a need to plan and provide subsidies or other financial incentives to assist people with dementia and their caregivers to engage in reablement programs in Australia. Funding bodies and decision makers are urged to recognise the societal benefits that can be achieved from participating in such reablement programs.

A health economic approach to modelling the equity impact of childhood obesity interventions

Anagha Killedar¹, Thomas Lung², Alison Hayes¹

¹University of Sydney, ²The George Institute for Global Health

Objective

To identify strategies that are cost-effective at reducing inequalities in childhood obesity.

Methods

We are developing an economic model of BMI in children aged 5-17 years. Using data from almost 27 000 observations in the Longitudinal Study of Australian Children (LSAC), the BMI trajectories of children by age, sex, and socioeconomic position (SEP) will be modelled. The relevant healthcare costs and quality of life utilities will be identified from published literature and LSAC data analysis. The within-trial equity impact of obesity interventions will then be determined by measuring how differences in BMI distributions between SEP groups are affected by the intervention. Finally, these trial results will be applied to the model to project their long-term cost-effectiveness and equity impact.

Lessons Learned

Initial work has shown that inequalities in BMI are already apparent by age 5 and that children at low SEP gain BMI faster than those at high SEP. At age 5, children at low SEP have on average 0.25 kg/m² greater BMI than children at high SEP ($t_{282}=4.18$, $P<0.001$). By age 17, the BMI inequality widens to 1.37 kg/m² ($t_{275}=5.62$, $P<0.001$). Additionally, we have found that quality of life is associated with weight status and that the effects are amplified in adolescence, yet there was no evidence that SEP affects the association between BMI z-score and utility ($p>0.05$).

Implications

Our results will facilitate the prediction of cost-effectiveness and impact of obesity prevention strategies on health inequalities. This will promote decision-making that considers efficiency and equity side-by-side.

Burden and cost of pelvic and lower limb injuries from road traffic crashes, in Queensland

Victoria McCreanor^{1,2}, Matthew Hope^{3,4}, Cate Cameron^{1,2}, Jacelle Warren¹, Kirsten Vallmuur^{1,2}, Cliff Pollard¹

¹Jamieson Trauma Institute, Metro North HHS, ²Queensland University of Technology, ³Princess Alexandra Hospital, Metro South HHS, ⁴Royal Australasian College of Surgeons, Queensland Trauma Committee

Objective

The objective of this research is to describe the incidence of pelvic and lower limb fractures following land transport crashes in Queensland, over a 5-year period, including describing costs and future readmissions.

Methods

We undertook a retrospective cohort study using administrative data from the Queensland Hospital Admitted Patients Data Collection (QHAPDC) and clinical costings. Data for individuals admitted to Queensland hospitals between 1 July 2012 and 30 June 2017, following a land transport crash resulting in a pelvic and lower limb fracture were included. Readmissions and associated costs data, for the 12 months following the index admission were linked.

Lessons Learned

The results highlight the substantial healthcare burden from land transport crash-related pelvic and lower limb fractures, with tibia and fibula fractures contributing the most. Many patients have multiple episodes of care (mean = 2.04 stays in hospital) and incur high in-patient costs. The costs per patient varied widely, with median cost of the first episode of care per person at \$11,922 (mean = \$31,787, SD = \$66,179) and median per person total costs of \$14,690 (mean = \$36,427, SD = \$70,016). The total cost for all patients was almost \$350 million over 5 years.

Implications

Given these figures, ensuring efficient resource use to optimise patient outcomes is essential. Data linkage methods can help to provide a comprehensive profile of hospital resource use and associated costs. Analyses of those datasets can be used to inform policies for efficient resource planning.

Cost-effectiveness analysis of a supervised exercise intervention for prostate cancer patients with bone metastases

Kim Edmunds¹, Haitham Tuffaha¹, Penny Reeves^{2,3}, Daniel A Galvão⁴, Robert U Newton⁴, Dennis R Taaffe⁴, Nigel Spry^{5,6}, Paul Scuffham^{1,7}

¹CRE for Prostate Cancer Survivorship, Centre for Applied Health Economics, Griffith University, Nathan

²Hunter Medical Research Institute, New Lambton Heights

³School of Medicine and Public Health, University of Newcastle, Callaghan

⁴Exercise Medicine Research Institute, Edith Cowan University, Joondalup

⁵Department of Radiation Oncology, Sir Charles Gairdner Hospital, Nedlands

⁶Faculty of Medicine, University of Western Australia, Nedlands

⁷Menzies Health Institute Queensland, Griffith University, Gold Coast

Objective

Prostate cancer (PC) patients with bone metastases receiving androgen deprivation therapy benefit from exercise via improved muscle mass and physical function and lower risk of falls, which contribute to improvements in quality of life, as well as treatment costs avoided. No economic evaluations of exercise interventions for PC patients have been carried out. In the absence of evidence, we conducted a pilot study to determine feasibility of future studies.

Methods

A trial-based cost-effective analysis (CEA) was conducted of a pilot RCT involving 20 PC patients participating in twice weekly resistance exercise sessions. Resource use and costs of implementation were collected and valued. QALYs and incremental cost-effectiveness ratios (ICERs) were calculated for trial outcomes. Value of information (VOI) analysis was carried out.

Lessons Learned

The intervention had a statistically significant effect in increased physical activity, improved physical function and increased lean mass at a mean per person cost of \$461. Quality-adjusted life years gain for the intervention group versus the usual care group was 0.0035, with incremental cost per QALY gain of \$133,509. The CEA was limited by its small sample size and short-term follow-up, generating highly uncertain results.

Implications

This is the first cost effectiveness study of a RCT of a supervised exercise intervention for PC survivors with bone metastases. VOI analysis suggests a larger study would be worthwhile to evaluate the effectiveness and cost effectiveness of the intervention. Future research should address the methodology to capture the health benefits in this population and improve the cost-effectiveness analysis.

Cost of community treatable emergency department presentations

Josh Byrnes¹, Claudia Bull¹, Paramvir Gill¹

¹Centre for Applied Health Economics, Griffith University

Objectives

Health care systems are struggling with an increase in ED presentations at a rate that is disproportionate to population growth. Contemporaneously, there has also been an unprecedented increase in the proportion of presentations to the ED that could have otherwise been treated in the community or GP-type presentations. Not only does this disrupt accessibility to urgent care, but it also poses a threat to overall patient safety by increasing waiting times, overcrowding, poor patient outcomes and increased mortality rates. The aim of this paper is to estimate the cost of GP type presentations to the ED in Queensland.

Methods

Data from the Queensland Emergency Department Patient Experience Survey (n = 14,638) collected for 53 hospitals along with data on all presentations over the same two-month time period (n=294,567) was utilised for analysis.

Lessons Learnt

Consistent with previous studies, the percentage of ED presentations that were identified as treatable in the community ranged between 25% - 34% depending on method of classification used. Based on the average cost of an ED presentation and average MBS item for an after-hours urgent consult, the net cost of providing treatment in the ED instead of the community is estimated to be \$31 million per annum.

Implications

Novel strategies to ensure patients receive the right care in the right place could provide significant savings to the Queensland health system.

Use of Return on Investment (ROI) for local decision making

Ravi Singh, Paul Brown

University of California, Merced, USA

Objective: Many funders and local decision makers prefer return on investment (ROI) to cost effectiveness (CE) analysis when evaluating community-based programs. This study compares the results of an ROI and CE analysis of a community-based diabetes prevention program.

Methods: Data from a three-year program to promote the National Diabetes Prevention Program (NDPP) in a rural California county. The ROI parameters (e.g., time period of interest) were developed in consultation with a community based advisory group. Two estimates of the benefits were used to calculate the ROI: \$50,000 per QALY and the results from a discrete choice experiment (DCE) survey of the public's value of the program.

Results: 43 people completed the NDPP, resulting in a ROI of \$0.47 per \$1 invested using \$50,000 per QALY and \$0.66 per \$1 invested using the DCE. The breakeven numbers needing to complete the program were 162 and 254, respectively. However, the outcomes were sensitive to the parameters of the ROI, including the time horizon of the decision makers. The criteria for success using the ROI was higher than from a CE.

Lessons learned: This study describes the steps required to work with a community group to develop an ROI. The results suggest that the ROI is sensitive to the parameters and will likely to yield different results than a CE study.

Implications: Researchers and decision makers who use ROIs for priority setting/evaluations need to be aware of the implications of their choices on the ultimate outcomes.

Use of big data and data linkage for health services research: feasibility, challenges and opportunities

Symposium Lead: Nadine Andrew, Department of Medicine, Peninsula Clinical School, Central Clinical School, Monash University

Rationale for Symposium:

Non-communicable chronic diseases are placing an unprecedented burden on health systems both nationally and globally, accounting for 90% of all deaths and more than 80% of the burden of disease and injury. Technology now enables us to link person-level data between large datasets and across health sectors. Maximising the use of improved data collections, linkage systems and related technologies has great potential to allow large-scale evaluations of healthcare delivery to better meet the needs of those with complex chronic diseases. Despite the growing capabilities of big data there are a number of challenges associated with using large linked datasets for health services research.

Topic description:

We have designed this session to demonstrate how large datasets can be: reliably linked, used to evaluate healthcare policies and practice, and used to better understand the continuum of care, with stroke and heart disease as case studies. Analytical and epidemiological challenges associated with secondary use of administrative data for research purposes will be discussed along with practical issues such as workforce deficiencies, data access and data security. Finally we will review the evolution of novel and advanced methods such as machine learning and how these may value add to existing research approaches. This is a complex and rapidly growing area that has great potential for large-scale health services research in the future.

Presentation one

Applications of linked data for healthcare evaluation in stroke

Nadine E Andrew¹, Dominique A Cadilhac^{2,3}, Amanda G Thrift², Vijaya Sundararajan⁴, Joosup Kim^{2,3}, Monique F Kilkenny^{2,3}

1. Department of Medicine, Peninsula Clinical School, Central Clinical School, Monash University, Frankston, Victoria Australia

2. Stroke and Ageing Research, School of Clinical Sciences at Monash Health, Monash University, Clayton, Victoria Australia

3. Florey Institute of Neuroscience and Mental Health, Heidelberg, Victoria Australia

4. Department of Public Health, School of Psychology and Public Health, La Trobe University, Bundoora, Victoria, Australia

Overview:

In response to the growing burden of chronic diseases, governments are investing substantial funds in innovative models of primary care aimed at prevention and self-management. However, large scale population-based evaluations of the effectiveness of these policies are lacking. We will discuss the feasibility of linking person-level data from the Australian Stroke Clinical Registry (N~30,000), containing clinical and Person Reported Outcome Measures, with eight administrative State and Commonwealth held datasets; our overall aim is to evaluate the effectiveness and cost-effectiveness of enhanced primary care policies within “real world” healthcare provision. Technical and governance challenges will be discussed as will methodological considerations.

Presentation two

Use of big data to improve outcomes in stroke

Kilkenny MF, 1,2 Kim J, 1,2 Thrift AG, 1 Cadilhac DA, 1,2 Andrew NA.1,3

1 Stroke and Ageing Research, Department of Medicine, School of Clinical Sciences at Monash Health, Monash University, Clayton, VIC, Australia

2 The Florey Institute of Neuroscience & Mental Health, Heidelberg, VIC, Australia

3 Peninsula Clinical School, Central Clinical School, Monash University, Frankston, Australia

Overview:

Worldwide, stroke is a major cause of death and disability. We will describe the use of big data, whereby multiple datasets have been merged, to identify the influence of gaps in patient care on outcomes. The Australian Stroke Clinical Registry has been successfully linked to ambulance, emergency presentations, admissions, medications, doctors' visits, rehabilitation outcomes and death data. We will describe the continuum of stroke care and the influence of risk factors, comorbidity and the quality of care associated with different outcomes. We will also present how these data can assist in understanding the adherence to pharmacological agents for stroke prevention.

Presentation three

Applications of Linked Administrative Data for Evaluation of Diseases of the Heart

Sanfilippo FM,¹ Nedkoff L,¹ Lopez D,¹ Knuiman M,¹ Hung J,² Dwivedi G,^{2,3,4} Katzenellenbogen J,¹ Briffa T.¹

1 Cardiovascular Research Group, School of Population and Global Health, The University of Western Australia, Perth, Western Australia, Australia.

2 Medical School, The University of Western Australia, Perth, Western Australia, Australia.

3 Harry Perkins Institute of Medical Research, Nedlands, Western Australia, Australia.

4 Cardiology Department, Fiona Stanley Hospital, Murdoch, Western Australia, Australia.

Overview:

Despite improvements in diagnosis, prevention and treatment, heart disease remains a common and troublesome burden nationally and globally. We will describe how linked administrative data (admissions, ED, death, PBS, MBS) have been used to evaluate healthcare services and practice at the population level. Applications to coronary heart disease, heart failure and atrial fibrillation will be presented showing: improvements in measuring disease by accounting for hospital transfers and readmissions, analytical methods such as landmark analysis, use of restricted cubic splines in medication adherence, and machine learning methods and issues to consider (missing data, class imbalance, boosting algorithms, feature selection).

Presentation four

Needs, priority areas and recommendations for building capacity in the Australian pharmacoepidemiology workforce

Derrick Lopez¹, Frank Sanfilippo¹, Cecily Strange¹, Benjamin Daniels², Sallie Pearson², Angelita Martini¹ and David Preen¹

1 School of Population and Global Health, The University of Western Australia, Perth, Western Australia, Australia

2 Centre for Big Data Research in Health, The University of New South Wales, Sydney, Australia

Overview:

The previous presenters showed findings from use of linked administrative data. Despite investments in infrastructure and the development of policy frameworks to support research using administrative data, there has been little matching investment in expanding Australia's human capacity to do this work. The authors were funded by the Centre for Research Excellence in Medicines and Ageing to look at building capacity in the Australian pharmacoepidemiology workforce. We will present findings from senior stakeholders and analysts on needs, barriers, enablers and priority areas to building workforce capacity in

pharmacoepidemiology; and examples of the workforce involved in emerging methodologies like machine learning.

Development of a needs-based planning model for mental health services in Australia: the National Mental Health Service Planning Framework

Symposium Lead (name and affiliation): Sandra Diminic, Queensland Centre for Mental Health Research (QCMHR)

Rationale for Symposium: Australia's National Mental Health Service Planning Framework (NMHSPF) is a needs-based planning model consolidating available evidence to generate national resource estimates for mental health services. This symposium provides an overview of the NMHSPF development and new research on specific sub-groups.

Topic description

The aim of the NMHSPF is to provide a population-level, evidence-based model producing resource estimates for the full spectrum of mental health care needs in Australia. It draws on evidence from published literature, clinical guidelines, survey and administrative data, expert panels, and user feedback to: define a national taxonomy of standard mental health service components; describe appropriate staffing models, operational parameters, and salaries for mental health services; identify the number of people with mental health needs in the community by age and intensity of service needs; outline care profiles of the average types and quantities of services required by each need group in a 12-month period; and combine these elements into a Planning Support Tool that produces benchmarks for the resources (beds, staff, costs) and activity (sessions, hours) required to deliver adequate mental health care. The QCMHR research team is currently undertaking further work to enhance the model's application for specific populations such as people living in rural areas, Aboriginal and Torres Strait Islander populations, and youth. NMHSPF outputs can be combined with information on current service provision to guide strategic reform directions, by identifying areas of relative underinvestment, service gaps, and duplication. The model is being used across Australia as a tool to support joint regional mental health planning.

Presentation one

Development of the NMHSPF: estimating mental health needs and service requirements for Australia

Sandra Diminic^{1,2}, Kate Gossip^{1,2}, Elizabeth Leitch^{1,2}, Kevin Fjeldsoe¹, Charlotte Woody^{1,2}, Imogen Page^{1,2}, Eryn Wright^{1,2}, Claudia Sparti^{1,2}, Harvey Whiteford^{1,2,3}

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Overview:

This presentation provides an overview of the NMHSPF model structure and the methods used to develop its estimation of mental health service needs, care requirements and service models. These inputs are modelled from published literature, mental health service models, health surveys, administrative data, and expert consensus. They are combined to produce resource estimates for planning across the full spectrum of mental health care, including mental health promotion and prevention, primary and specialised community treatment, bed-based care and psychosocial support services.

Presentation two

Adapting the NMHSPF for rural populations

Charlotte Woody^{1,2}, Elizabeth Leitch^{1,2}, Kevin Fjeldsoe¹, Kate Gossip^{1,2}, Sandra Diminic^{1,2}

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²Queensland Centre for Mental Health Research, Brisbane, Australia

Overview:

Due to the principle of national averaging, a weakness of the NMHSPF has been that it does not provide tailored estimates for rural areas. In response, work was undertaken to model new care needs and staffing models to better account for different service requirements in rural areas. A rapid literature review was undertaken to identify key models of service delivery and related issues. Modelling principles were developed in consultation with an expert panel. The modelling principles defining key areas of service difference will be presented, along with how they have been used to guide modifications to the NMHSPF.

Presentation three

Adapting the NMHSPF for Aboriginal and Torres Strait Islander peoples

Imogen Page^{1,2}, Elizabeth Leitch^{1,2}, Fiona Charlson^{1,2,3}, Kevin Fjeldsoe¹, Kate Gossip^{1,2}, Sandra Diminic^{1,2}

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Overview:

This presentation details the process to adapt the NMHSPF to provide more specific benchmarks for the unique mental health needs of Aboriginal and Torres Strait Islander populations. Expert panel consultation and a scoping literature review of effective models of care were used to inform the focus areas for modelling changes and these were further refined with reference to national strategies and available evidence. A literature review to determine the prevalence of mental illness in Aboriginal and Torres Strait Islander populations was also undertaken. Key principles of the new modelling will be presented.

Presentation four

Estimating the need and describing the type and quantity of youth-focused services required in Australia for 18-24 year olds

Kate Gossip^{1,2}, Charlotte Woody^{1,2}, Elizabeth Leitch^{1,2}, Holly Erskine^{1,2,3}, Sandra Diminic^{1,2}

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Overview:

Young adults (18-24 years) are significantly impacted by mental illness and are in a critical developmental period that contributes to their unique service requirements that need to be considered when planning services. A program of work is being undertaken to identify the prevalence of mental illness and the evidence-based services that are required to care for this age group, within a continuum of adolescent, youth and adult services. The modelling principles defining key areas of service difference will be presented, along with how they are being used to guide modifications to the NMHSPF.

Presentation five

Challenges in mapping resourcing and utilisation of mental health services across Australia to support needs-based planning with the NMHSPF

Claudia Sparti^{1,2}, Yong Yi Lee^{1,2}, Elizabeth Leitch^{1,2}, Sandra Diminic^{1,2}

¹School of Public Health, The University of Queensland, Brisbane, Australia

²Queensland Centre for Mental Health Research, Brisbane, Australia

Overview:

Mental health service planners need to undertake mental health service mapping exercises detailing current service provision to inform their planning. Services maps that align with the taxonomy and resource types produced by the NMHSPF can be compared to NMHSPF modelled resource benchmarks, thereby providing insights into: gaps or duplication in the current provision of mental health services; and the presence of population subgroups that may be at risk of receiving insufficient levels of care. This presentation provides an overview of the processes and problems involved in generating NMHSPF comparable service maps across Australia using a standardised methodology.

Redesigning Systems of Care Around Population Health Needs- Learnings From A Large Primary Health Organisation

WELLS Sue, Allan Moffitt, Tania Riddell for the ProCare Clinical Directorate
ProCare Health Ltd

Aim: Primary care has been identified as a key sector to address Māori health gain and equity of health outcomes across population groups by age, gender, ethnicity, socioeconomic deprivation and geographic location. We aim to describe the development of a population health strategy and implementation plan being developed by ProCare in response to demonstrable inequities

Methods: In May 2018, ProCare published its first population health needs analysis and found large gaps in access, processes of care and outcomes between enrolled patient groups (particularly for Māori and Pacific people) across the Greater Auckland region. In recognition of this, the PHO Board, Clinical Governance committees, Māori and Pacific governance groups called for a population health strategy that took a strong pro-equity stance. To develop this, we took a life-course approach and conducted a series of workshops, hui, ethnicity-specific focus groups and network consultation to prioritise population health efforts. ProCare's Māori Health Strategy guided the Māori equity framework and ProCare's Pacific Health Strategy recognised the diverse cultural needs of Pacific peoples. Key models of care were Health Care Home, Whānau Ora and Te Tumu Waiora (Primary Mental Health and Wellbeing Innovation Programme).

Results: Five key goals were chosen by our community, Māori, Pacific and clinical governance groups, and the ProCare practice network. Three of these goals span specific age groups (pregnancy to 4 years, youth aged 15-24 years and older people [Māori/Pacific/NZDepQ5 from 65 years and others from 75 years]) and two goals cross multiple age/life stages (mental health and wellbeing, care for those with long term conditions). An implementation plan cognisant of a resourced constrained environment has just been developed. This includes network clinical champions, enhanced co-ordination of health and social services, information technology for consumer and whānau engagement and measurement, monitoring and feedback. The intent is to develop systems of care and referral pathways that work across the region and for practices to choose one or two activities out of a suite of options that are evidence-based and shown to improve equity of health outcomes.

Conclusion: To improve health equity at scale we now have a common view of the problem and embarking on joint approaches to solving it.

Can mergers foster organisational legitimacy? A follow-up study of two merged independent community health organisations from Victoria, Australia

Véronique Roussy¹, Grant Russell¹, Charles Livingstone¹

¹Monash University

Objective

To explore how merging affected the perceived legitimacy of independent Victorian community health organisations in provision of comprehensive primary health care services to disadvantaged communities.

Methods

Mixed methods, longitudinal follow-up study of two merger processes, which created regional-sized, independent community health organisations in outer urban Melbourne (Victoria, Australia) in 2014. Template and thematic analysis were applied to data from 19 follow-up semi-structured interviews with key informants (executives, Board Directors, and external stakeholders) in 2016-2017, in order to identify the perceived effects of amalgamating on 1) the pragmatic, normative and cognitive legitimacy of merged organisations; and 2) the overall legitimacy of independent community health organisations within the health system. An online staff survey across both organisations (n = 179), gathered perspectives on post-amalgamation culture (using the Organisational Culture Assessment Instrument), and alignment with traditional community health values.

Lessons learned

Overall, merging enabled organisations to gain greater legitimacy as providers of primary health care services, and as advocates on health inequalities. However, this was accompanied with a shift away from traditional community health values, as perceived by staff, towards a more business-oriented philosophy. While increasing size and visibility through amalgamation might help legitimise the role of these values-driven organisations in Victoria's health system, their relevance in a highly unstable funding and policy landscape remains unclear.

Implications

As health inequities and costs continue to worsen in Australia and globally, reflection is required around which organisational form can provide the most legitimate platform to provide community-based primary health services to vulnerable communities.

Reducing Inequities: What can we learn from organisations working in partnerships?

Elizabeth Disney, Richard Greatbanks, Robin Gauld
University of Otago

Objectives

Alliances between statutory health care organisations in New Zealand have been mandatory since 2008. The 2019 Long Term Plan for the English National Health Service stated that similar partnership structures, in the form of Integrated Care Alliances, are to be developed by 2021. This study seeks to understand the value and benefit of governing, planning and delivering health services through these partnership structures. This paper considers if working within such partnerships better enables reduced health inequities, in particular through the potential for re-distribution of health resources.

Methods

Overall this study comprises a comparative case study between the alliances of the South Island of New Zealand and the Greater Manchester Health and Social Care Partnership in the UK. Over 50 semi-structured interviews were conducted with senior policy, governance, clinical and operational leaders in the two countries. Interviews were transcribed and summarised, followed by full thematic analysis using NVivo.

Lessons Learned

Senior leaders described how working in partnerships was shifting the focus of their organisations' purpose towards greater integrated planning and provision of care, including identifying critical success factors for optimised partnership working. Furthermore, a move towards population health systems and place-based leadership were evident, including improved organisational understanding of the relationship between health status and economic prosperity, and the opportunity this presents for reducing inequity in both health and wealth.

Implications

The findings are useful for leaders and managers interested in partnership working to effectively impact inequities, and for policy makers in determining how best to centrally support such partnerships.

Evaluation of the impact of HealthPathways on the design and integration of health services in Sydney Local Health District.

Symposium Lead: Dr Sarah Norris, University of Sydney

Rationale for Symposium: We undertook an independent comprehensive systems-thinking evaluation of a program designed to improve local health services. The evaluation comprised 14 mixed-methods sub-studies, with a planned convergent analysis of findings. A meaningful interpretation of the collected findings of the evaluation requires multiple co-ordinated presentations.

Topic description HealthPathways is a web-based platform providing healthcare professionals with localised clinical and referral information for a range of primary care presentations. Sydney Local Health District (SLHD) and Central and Eastern Sydney Primary Health Network (CESPHN) launched HealthPathways Sydney in March 2014 with the objective of improving both the design and integration of primary and secondary care within the inner west Sydney region. Our analysis describes the reach, quality, acceptability and effectiveness of HealthPathways Sydney from a whole of system perspective.

Presentation one

Sarah Norris, Sally Wortley, Carmen Huckel-Schneider, Adam Elshaug, Andrew Wilson; University of Sydney

Overview: Description of the methods used within the evaluation. This presentation will describe the multiple study designs (qualitative and quantitative) within the evaluation, the rationale for these, and how these fell into two phases over the course of the evaluation. This presentation will also describe the evolution of our approach to the analysis of findings and explain our decision to frame the evaluation as an assessment of the implementation, adoption and likely sustainability of a technology within a complex health system.

Presentation two

Sarah Norris, Sally Wortley, Carmen Huckel-Schneider, Adam Elshaug, Andrew Wilson; University of Sydney

Overview: Summary of findings from Phase One of the evaluation. This presentation will summarise our findings from the following sources: Google analytics data; semi-structured interviews with General Practitioners, patients and specialists; audits of referral completeness and appropriateness for a selection of four pathways; and time series analyses of referrals to a selection of public outpatient clinics.

Presentation three

Sarah Norris, Sally Wortley, Carmen Huckel-Schneider, Adam Elshaug, Andrew Wilson; University of Sydney

Overview: Summary of findings from Phase Two of the evaluation. This presentation will summarise our findings from the following sources: a social network analysis of involvement in the local HealthPathways program; geospatial mapping of program participants to explore relationships with levels of socioeconomic deprivation across the region; framing analysis among key stakeholders; process

tracing to describe how service redesign opportunities were identified and acted upon; and an assessment of the quality of the clinical content within a sample of pathways.

Presentation four

Sarah Norris, Sally Wortley, Carmen Huckel-Schneider, Adam Elshaug, Andrew Wilson; University of Sydney

Overview: Overall interpretation of findings. This presentation will describe how findings from individual studies have been synthesised using the NASSS (Non-adoption, Abandonment, Spread, Scale-up, Sustainability) framework domains: condition, technology, value proposition, adopters, organisations, wider systems, embedding/adopting over time. The presentation will then describe how the interpretation of findings has informed the development of recommendations to the program sponsors regarding the future potential of HealthPathways to support appropriate clinical decision making and service redesign across the primary and secondary care interface within the SLHD.

Optimising access to dental care for people experiencing homelessness

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²Queensland Health, Oral Health Services, Community and Oral Health Directorate, Royal Brisbane & Women's Hospital, Brisbane

Objectives

Fear, lack of information and lower health literacy prevent people experiencing homelessness from accessing dental services. The majority of this population are eligible for free dental treatment in Australia, yet few access care. This study implemented and evaluated three models for facilitating access to local public dental services for people experiencing homelessness.

Methods

A facilitated access model was developed where dental practitioners undertook dental screening and education at four community organisations in Brisbane, Australia. Dental appointments were booked on the spot, within a fortnight of the screening (Model 1). The following year, Model 2 was implemented. In an attempt to enhance sustainability of the model, after a dental screening in the community setting, appointments were made by a phone call from the service. In the next iteration (Model 3), the community organisations referred clients directly to the service to make appointments via phone call. For each model, participant demographic information and attendance to subsequent dental appointments was collected.

Lessons Learned

Seventy-six people participated in Model 1, 66 in Model 2 and 43 in Model 3. Cost per participant was estimated to be \$104(AUD) in Model 1, \$96.50(AUD) in Model 2 and \$7.50(AUD) in Model 3. Attendance to subsequent dental appointments was 84% (n= 64/76) in Model 1, 56% (n= 37/66) in Model 2 and 28% (n= 12/43) in Model 3.

Implications

Innovations in oral health services must consider the cost and effectiveness of the model. While Model 1 was the most costly, it provided face to face engagement and reduced time in accessing dental services, eliciting the highest attendance rate at local public dental services for people experiencing homelessness.

Counting the cost: A retrospective chart review of admissions and length of stay for children with Intellectual Disability across two tertiary paediatric hospitals.

Laurel Mimmo^{1,2}, Susan Woolfenden^{1,2}, Joanne Travaglia³ and Reema Harrison¹

¹University of New South Wales, ²Sydney Children's Hospitals Network, ³University of Technology Sydney

Objectives

Children with Intellectual Disability (ID) experience health inequities and are vulnerable to poor hospital experiences. Prolonged length of stay (LOS) is associated with increased risk of medical error and poor patient experience. We aimed to determine the frequency and LOS of hospitalisation for children with ID admitted to two tertiary paediatric hospitals in 2016.

Methods

A retrospective chart review of the medical record was conducted and admission data extracted from each admission that met the inclusion criteria: all admissions for children to an inpatient ward for >23 hours in 2016 where at least one admission was coded for ID according to the ICD-10. Comparison of difference in median LOS between the ID coded population and non-ID coded population was conducted using Mann-Whitney U test for non-parametric distributions.

Lessons Learned

Of the 14,244 children admitted during the study period 336 children had at least one admission coded with an ID, a total of 659 admissions. One third were not coded for ID. Admissions for the ID-coded population had a median LOS of 87 hours (IQR 47-187), 23 hours longer than the median LOS for admissions not coded with ID of 64 hours (IQR 37-122), p-value: <0.001.

We present these findings with interim results of a subsequent study to determine the prevalence and rates of clinical incidents for children with ID across both hospitals.

Implications

Our findings highlight the need for healthcare services to develop targeted strategies to reduce LOS and optimise the care quality experiences during hospitalisation for these children.

Disrespect and Abuse during Childbirth in Western Ethiopia: Should Women Continue to Tolerate?

Firew Tekle Bobo^{1*} (BSc, MPH), Habtamu Kebebe Kasaye² (BSc, MSc), Belachew Etana¹ (BSc, MPH), Mirkuzie Woldie^{3,4} (MD, MPH, VLDP, JBI fellow), Tesfaye Regassa Feyissa¹ (BSc, MPH)

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Background: Healthcare coverage in Ethiopia has improved dramatically in recent decades. However, facility-based delivery remains persistently low, while maternal mortality remains high. This paper presents the prevalence and associated factors of disrespect and abuse (D&A) during childbirth in public health facilities of western Oromia, Ethiopia.

Method: A facility-based cross-sectional study was conducted among 612 women from February 2017 to May 2017. Exit interview with the mothers were conducted upon discharge from the maternity ward. We measured D&A during childbirth using seven dimensions. Multivariable logistic regression model was used to assess the association between experience of D&A and client characteristics and institutional factors.

Result: Three quarters (74.8%) of women reported experiencing at least one form of D&A during their facility childbirth. The types of D&A experienced by the women were; physical abuse (37.1%), non-dignified care (34.6%), non-consented care (54.1%), non-confidential care (40.4%), neglect (25.2%), detention (2.9%), and discrimination (13.2%). Experiences of D&A were 1.6 times more likely to be reported by women delivering at hospitals than health centers (OR: 1.64, 95% CI: 1.01, 2.66). Women without a companion throughout their delivery were almost 10 times more likely than women who had a companion to encounter D&A (OR: 9.94, 95% CI: 5.72, 17.28).

Conclusion: Three in four women reported experiencing at least one form of D&A during labor and delivery. This demonstrates a real disconnect between what the health system intends to achieve and what is practiced and calls for fundamental solutions in terms of both improving quality of facility-based delivery and ensuring women's right to receive health care with dignity.

Keywords: Facility-based delivery, Disrespect and abuse, Maternal mortality, Quality of care, Western Oromia, Ethiopia

The vision rehabilitation gap in three regions of New Zealand

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Objectives

The primary objective was to estimate the number of potential recipients of vision rehabilitation services by the New Zealand Blind Foundation (NZBF) in three regions of New Zealand.

Methods

Capture-recapture, a relatively new method that enables the rapid estimation of the prevalence of disease, was used to estimate the prevalence of visual impairment (as defined by criteria for NZBF membership, a best corrected visual acuity of $\leq 6/24$) in Auckland-Waitemata; Canterbury and Counties Manukau, three urban regions of New Zealand. Lists of people 15 years of age or over, who underwent eye health assessments in ophthalmology and/or optometry clinics, as well as those applying for NZBF services, during September 2011 to September 2014 were obtained in these regions. Log-linear models were used to estimate incidence of new cases throughout this period. Corresponding resident census figures were used from 2013 to derive a three-year cumulative incidence, and prevalence was extrapolated based on estimates of survival in people with visual impairment.

Lessons Learned

In the Auckland District Health Board and Waitemata regions, the prevalence of visual impairment was 0.49% (95% confidence interval [CI]: 0.41 to 0.60); in Canterbury 0.52% (95% CI: 0.45 to 0.60) and in Counties Manukau, 1.96% (95% CI: 1.20 to 3.61).

Implications

Gaps in the number of people with visual impairment were identified in three regions of New Zealand. These results are useful for planning and prioritising the delivery of vision health and rehabilitation services in New Zealand.

Uptake and cost of early supported discharge and hospital in the home in Australian public hospitals: a study protocol

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Objective

Early supported discharge and hospital in the home (HiTH) is associated with equal or better health outcomes for specific conditions compared to usual inpatient hospital care (IHC). However, economic benefits of HiTH are uncertain. We aim to estimate the potential for efficiency gains in Australia's health system by profiling the current and potential uptake of HiTH, and quantifying the cost of HiTH relative to IHC.

Methods

Our analyses will utilise three datasets from the Independent Hospital Pricing Authority: the Admitted Patient Care Dataset, the Admitted Subacute and Non-acute Hospital Care Dataset, and the National Hospital Cost Data Collection. We will estimate the potential usage of HiTH by applying the highest rate of HiTH usage within each state/territory to other hospitals within the same jurisdiction, adjusting for differences in hospital and patient characteristics. Cost of care and resource utilisation will be quantified for recipients of HiTH and for matched recipients of IHC. We will estimate potential health system gain by combining estimates of the difference between current and potential uptake of HiTH, and the difference in health care costs and resource utilisation for recipients of HiTH and recipients of IHC.

Lessons learned

We anticipate our analyses will inform whether HiTH is cost saving in the Australian context, and the potential for health system gain.

Implications

To ensure the sustainability of health systems, interventions that can reduce expenditure while maintaining care quality must be upscaled. Our research will help policymakers and clinicians to decide on HiTH funding and utilisation.

What are the outcomes for children with attention deficit hyperactivity disorder in Child and Youth Mental Health community clinics?

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Objectives:

To investigate outcomes for children with ADHD attending Child and Youth Mental Health Service (CYMHS) community clinics, in terms of clinically significant change and in comparison to those with Autism Spectrum Disorder (ASD) and other psychiatric disorders.

Methods:

In this observational study, routinely collected data from outpatients (5-17 years) (N = 3305) who attended CYMHS community clinics from 2013 to 2018 were analysed. Those with a diagnosis of ADHD were compared to those with ASD and other psychiatric diagnoses on demographics, baseline and end-of-treatment routine outcome measures (ROMs), extracted from electronic health records. ROMs were clinician reported mental health symptoms, social functioning, emotional and behavioural problems (Health of the Nation Outcome Scales for Children and Adolescents; HoNOSCA) and general functioning (Children's Global Assessment Scale; CGAS), and parent reported problems (Strength and Difficulties Questionnaire; SDQ).

Lessons Learned:

Preliminary results indicate that mean baseline and end-of-treatment scores on ROMs do not differ between those with ADHD and those with ASD, however both groups had poorer outcomes than those with other psychiatric diagnoses. Relative to baseline, all three groups improved on ROMs however effect sizes were smaller for the ADHD and ASD groups.

Implications:

Preliminary findings suggest that children with ADHD and/or ASD do worse than children with other diagnoses. It is unclear whether this is due to unmet needs or whether only the most complex cases with ADHD or ASD are referred to CYMHS community clinics. At any rate, it seems that more intense treatment programs need to be developed.

Improving care for people with mild cognitive impairment

Tilley Pain,
JCU, Australia

Objective: People with Mild Cognitive Impairment (MCI) may progress to dementia. Treatment of MCI using pharmacologic intervention has no evidence base. However, exercise programs show promise. We trialled a combined cognitive and functional-task based exercise program to assess its acceptability and effectiveness.

Method: Qualitative and quantitative methods were used. Outcomes for the quantitative data included cognitive and functional measures. Initial and post intervention assessments included Neurobehavioral Cognitive Status Examination, Verbal Fluency Test, Verbal Learning Test, Trail Making Test A and B, Lawton Instrumental Activities of Daily Living Scale and Problems in Everyday Living Test. Individual interviews were conducted with caregivers and participants of the ten-week intervention program.

Lessons Learned: Approximately 80% of the 23 participants completed the program demonstrating its acceptability. Quantitative results showed five of seven cognitive and functional measures significantly improved implying this non-pharmacological intervention is beneficial for people with MCI. The qualitative findings suggest the program is viewed positively by participants and caregivers who described subjective cognitive improvements. Participants described benefits in their activities of daily living such as developing strategies to remember important tasks (e.g. taking medication). The social interaction of the group program may have been an added benefit.

Implications: The combined cognitive and functional-task based exercise program demonstrated significant improvement on cognitive and functional abilities for people with MCI. Therefore, improvements of the impact of MCI suggests this program may be used to alleviate the impact of MCI and lower the burden for patients, carers and health services.

Knowledge translation plan guides: A pragmatic, conceptual synthesis

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Objectives

Knowledge translation (KT) guides help target users to devise KT strategies for their research and its use. While the number and diversity of these guides has grown, their nature and content remain poorly understood. We will:

1. Present a comprehensive overview of the knowledge translation guidance readily accessible to researchers and knowledge users; and
2. Assist consumers of this guidance with an analysis of the guides' key attributes, gaps, strengths and weaknesses, and alignment with evidence and best practice.

Methods

We developed a Google plain search strategy to mimic common target user search techniques, in consultation with an academic librarian. Term clusters for knowledge translation (16) and guide (9) were joined with a Boolean operator (AND), then searched with/without quotations. English language guides providing advice on KT plan development (e.g., tangible steps, instructions, general advice) were included. Mixed methods were used to extract pre-defined variables and inductively capture key elements and themes.

Lessons Learned

Few guides describe an underlying conceptual framework, model or evidence base, nor are they independently evaluated. Common guide characteristics include consideration of context (barriers, facilitators, user needs); research knowledge; audience; strategy types; and monitoring, evaluation, and resource requirements.

Implications

This pragmatic review breaks down the similarities and differences between KT guides and assesses their quality. Through an inductive construction of content categories, we describe the most common KT advice offered and the degree to which guides are congruent with the latest KT evidence.

An evaluation of research investment and impact at a regional Australian Hospital and Health Service

Alexandra Edelman^{1,2}, Amy Brown², Tilley Pain², Sarah Larkins¹, and Gillian Harvey³

¹James Cook University, ²Townsville Hospital and Health Service, ³James Cook University,

³University of Adelaide

Objectives

A growing body of evidence links research activity in clinical settings with better health care, outcomes and health system performance. The Townsville Hospital and Health Service (THHS), in regional northern Queensland, has invested in research activity and capacity building for nearly two decades. This study aims to evaluate the impacts of research at THHS using a realist-informed research impact framework.

Methods

A narrative overview of the research journey and an impact framework were developed empirically from organisational documentation and interviews. A mixed methods evaluation was conducted using documentation, interviews and available databases to identify and measure research investment, impacts and contextual conditions influencing impact outcomes.

Lessons Learned

The history of research investment at THHS was interwoven with its development from a regional general hospital to the only tertiary referral service in northern Queensland. Impacts from research investment were identified in the areas of research activity, capacity, and clinical care. Contextual factors acting as enablers or barriers were both intrinsic and organisational. Pressure to meet health system performance targets was identified as a barrier to both research investment and impact, but this barrier was largely overcome by a conviction among THHS leaders that research is valuable.

Implications

The pathways to research impact within a regional Australian hospital are complex, with multiple contextual factors influencing a research impact trajectory. These findings dispel linear notions of research investment to impact. They also establish an empirically-derived framework for assessing research impact processes and outcomes that may be useful in other learning health systems.

How do Academic Health Centres in Australia enact their translational role: results of a scoping study

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¹University of Adelaide, ²Macquarie University, ³Townsville Hospital and Health Service, ⁴James Cook University, ⁵Australian Catholic University, ⁶University of Manchester, ⁷Flinders University, ⁸Monash University

Objective

One policy solution to so-called 'translational gaps' is the deliberate creation of academic-industry collaborations, commonly described as Academic Health Centres (AHCs). The NHMRC-designated Applied Health Research and Translation Centres (AHRTCs) and Centres for Innovation in Regional Health (CIRH) are examples of AHCs in Australia. This study aimed to examine and compare the early development of four diverse AHCs, exploring their strategic objectives to achieve and demonstrate impact; planned systems and processes for translation; and challenges encountered.

Methods

A qualitative, case study methodology was employed. Data were collected via semi-structured interviews with Board members of four AHCs: two NHMRC-designated and two non-designated. 15 interviews were conducted with a mix of academic, industry and executive board members. Data were entered into NVivo and analysed using a combination of deductive and inductive methods.

Lessons learned

AHCs in Australia are in an emergent state of development and following different pathways. They operate in diverse contexts with varying degrees of scale, which influences their strategic focus. To date, there has predominantly been an emphasis on structure and governance, with relatively less attention paid to micro-level implementation processes. Individual AHCs employ a variety of translational mechanisms, including capacity building, participatory approaches, exemplar projects and clinical engagement. Balancing collaboration and competition between constituent members presents a challenge, as does identifying appropriate ways to evaluate impact.

Implications

Opportunities exist to systematically assess how AHCs function 'on the ground' to understand whether and how they achieve their stated objectives of accelerating research translation into healthcare policy and practice.

Integrating research evidence into project management: Creating a culture of evidence-informed decision-making

Maria Larcombe¹ and Courtney Harper²

¹University of Otago, ²Counties Manukau Health

Objective

The ability to make evidence-informed decisions is essential in healthcare projects and programmes, including for equitable provision of services and outcomes. However, the process of decision-making according to the best information available (including research evidence, local data, and patient and clinician experience) can be difficult in practice. The use of research evidence in decision-making was identified as an area for improvement at Counties Manukau Health (CM Health).

Methods

The Ko Awatea Research and Evaluation Office (REO) at CM Health undertook research to understand the use of research evidence in decision-making at CM Health. Consequently, there has been increased capacity within the Ko Awatea to steer CM Health in establishing a culture of evidence-informed decision-making; including a knowledge broker participating in project teams, providing literature review services and training. These interventions aim to foster transparent and evidence-informed decision-making across the organisation. This presentation will give examples of projects the knowledge broker worked on in ambulatory care, focusing particularly on equitable provision of services for Māori and Pasifika populations.

Lessons Learned

The knowledge broker role has provided the opportunity for more robust integration and use of research evidence in decision-making. Key learnings have been the importance of relationship building, incorporating diverse skills and perspectives, leadership and organisational commitment.

Implications

This presentation supports delegates in their understanding of the use of research in decision-making, and provides lessons from CM Health's journey to improve capability in this area.

Reporting health research translation and impact in the curriculum vitae: a survey of an international cohort

Laura Boland^{1,2}, Lucie Brosseau³, Sienna Caspar⁴, Ian D Graham^{1,3}, Alison M. Hutchinson⁵, Anita Kothari², Kevin McNamara⁵, Elizabeth McInnes⁶, Dawn Stacey^{1,3}

¹Ottawa Hospital Research Institute, ²Western University, ³University of Ottawa, ⁴University of Lethbridge, ⁵Deakin University, ⁶Australian Catholic University

Objective

To explore how health researchers report research translation activities and impact on their curriculum vitae (CV).

Methods

A cross-sectional survey of an international cohort of healthcare researchers was conducted. Participants were asked about their reporting of research translation and impact activities on their CV, intention to report, and factors influencing reporting such activities on their CV. Analysis included univariate descriptive statistics, linear regression models to determine predictors of researchers' intention to report research translation and impact activities on their CV, and qualitative analysis of open-ended questions.

Lessons Learned

153 health researchers responded. Typical respondents were female Canadians with a doctoral degree. They commonly reported: advisory/regulatory committee membership related to research program (83%), research translation award(s) (61%), and academic performance assessments (59%). They most commonly did not report: citation metric scores (85%), requests to use research materials and/or products (81%), and summaries of impact (79%). Health researchers intended to report knowledge translation (43%) and impact (33%) on their CVs. Beliefs about capabilities and consequences of reporting were significant predictors of intention. Main barriers were: CV templates do not include research translation and impact activities, employers do not value research translation and impact activities, and lack of metrics to evaluate research translation and impact. 96% were unaware of a CV template formatted to include research translation and/or impact activities.

Implications

Health researchers require guidance and encouragement to report research translation and impact on their CVs. Respondents suggested a CV template that includes research translation and impact as a first step.

Overview of reviews on principles, strategies, outcomes, and impacts of research partnership approaches

F Hoekstra^{1,2}, KJ Mrklas^{3,4}, M Khan⁵, RC McKay^{1,2}, M Vis-Dunbar¹, KM Sibley⁵, T Nguyen^{6,7}, [ID Graham](#)^{6,8}, HL Gainforth^{1,2}

¹ *University of British Columbia*, ² *International Collaboration on Repair Discoveries (ICORD)*, ³ *Alberta Health Services*, ⁴ *University of Calgary*, ⁵ *University of Manitoba*, ⁶ *University of Ottawa*, ⁷ *McMaster University*, ⁸ *Ottawa Hospital Research Institute*

Objectives

Research partnership approaches, in which researchers and stakeholders work together on research projects, are promising research approaches to improve knowledge translation processes. Despite its popularity, a systematic overview of principles, strategies, outcomes, and impacts of research partnerships is still lacking. This study aims to identify principles, strategies, outcomes, and impacts from reviews on different types of research partnerships.

Method

This overview of reviews is the first step of our collaborative review process developed to synthesize the research partnership literature by conducting five different reviews: an overview of reviews, three scoping reviews, and an umbrella review. The research question of the overview of reviews was: “What principles, strategies, outcomes, and impacts are reported in different types of research partnership approaches?”. We included literature reviews of research partnerships using a systematic search strategy. Nine electronic databases (e.g., CINAHL, PsycInfo, Medline, Embase) were searched from inception to April 2018.

Lessons learned

We identified 86 reviews from a variety of research domains (e.g., health services, biomedical research, population health) describing different types of research partnership approaches (e.g., Integrated Knowledge Translation, Community-Based Participatory Research, Participatory Research, Patient and Public Involvement). After thematic analyses, we synthesized our findings into 17 overarching principles, 11 overarching strategies, and 20 overarching outcomes/impacts.

Implications

This overview of reviews provides a guide through the diverse literature on research partnerships in different domains and with different stakeholder groups. Our findings from this review together with our next literature reviews will contribute to improving the quality and conduct of research partnership studies.

WEDNESDAY 4 DECEMBER 2019

Concurrent sessions 2A - 2H

2A Indigenous Cultural Safety Symposium |

2A.1 14:45 | Culturally safe health care for Indigenous women and families. Symposium Lead: Anna Adcock (Ngāti Mutunga, Aotearoa), New Zealand. Presenters: Yvette Roe, Sophie Hickey, Sue Kildea, Charles Darwin University, Australia; Matthew Bennett, (Te Arawa, Tainui, Ngāti Kahungunu, Ngāti Pāhauwera, Aotearoa), Francesca Storey, Anna Adcock, Centre for Women's Health Research, Victoria University of Wellington New Zealand

2B Local Health Services Evaluation Symposium |

2B.1 14:45 | Local health services evaluation and decision-making: a framework and applied studies. Symposium Lead: Jonathan Karnon, Flinders University, Australia. Presenters: Penny Reeves, Andrew Searles, Christine Jorm, Hunter Medical Research Institute; Jon Karnon, Jackie Roseleur, Flinders University Australia

2C Pacific Populations and Integrated Services Symposium |

2C.1 14:45 | Integrated services to improve the health of Pacific peoples in Aotearoa New Zealand. Symposium Lead: Jacqueline Cumming, Health Services Research Centre, Victoria University of Wellington, New Zealand. Presenters: Jacqueline Cumming, Victoria University of Wellington; Debbie Ryan, Pacific Perspectives Ltd; Marianna Churchward, Victoria University of Wellington, New Zealand

2D Establishing Effective Research Partnerships Symposium |

2D.1 14: 45 | Establishing an Effective Research Partnership Between a University and a Local Health District. Symposium Lead: Judy Mullan, University of Wollongong, Australia. Presenters: Judy Mullan, Brendan McAlister, Victoria Westley-Wise, Luise Lago, University of Wollongong Australia

2E PROMS Symposium |

2E.1 14:45 | What truly matters to patients? Improving the measurement of patient reported outcomes in clinical quality registries. Symposium Lead: Darshini Ayton, Monash University, Australia. Presenters: Darshini Ayton, Renata Morello, Sze-Ee Soh, Susannah Ahern, Monash University Australia

2F Performance in Primary Care |

2F.1 14:45 | A systematic review of process evaluations of primary care interventions addressing non-communicable diseases. Hueiming Liu, The George Institute for Global Health Australia

2F.2 15:00 | Variation in US primary care practice performance across different high need subgroups. Andrew Old, The Commonwealth Fund United States

2F.3 15:15 | Underutilized and undertheorized: The use of hospitalization for Ambulatory Care Sensitive conditions for assessing the extent to which primary healthcare services are meeting needs in BC First Nation communities. Josée G. Lavoie, University of Manitoba Canada

2F.4 15:30 | Patient attachment to their primary care provider: Primary care Reform in Ontario in 2019. Michael Green, Queens Canada

2G: Health Care Quality Interventions |

2G.1 14:45 | Quantifying adverse drug event under-reporting then determining the risk rating and effect on patient admission length for each event. Centaine L. Snoswell, Princess Alexandra Hospital, Brisbane Australia

2G.2 15:00 | A systematic review and meta-analysis of interventions targeting antibiotic use in aged care facilities. Magdalena Raban, Macquarie University Australia

2G.3 15:15 | Designing and implementing an evidence-based pre-admission clinic for private patients undergoing elective surgeries. Jingjing He, Macquarie University Hospital Australia

2G.4 15:30 | Community Eye Care: improving access and reducing costs through collaborative care for diabetic retinopathy. Belinda Ford, The George Institute for Global Health Australia

2G.5 15:45 | Integrating implementation and evaluation using stepped-wedge randomisation: Effectiveness of a new model of care for community acquired pneumonia. Melanie Lloyd, Western Health Australia

2H Big Data |

2H.1 14:45 | Using existing electronic health record data to measure health status in residential aged care. Kim Lind, Macquarie University Australia

2H.2 15:00 | Trends in the use of Computed Tomography in the Emergency Department in Western Australia, 2003 to 2015: A linked administrative dataset analysis. Suzy Maxwell, Curtin University Australia

2H.3 15:15 | Decomposition analysis of growth in computer tomography utilisation in tertiary hospitals: An analysis of linked administrative data in Western Australia. Ninh HA, Curtin University Australia

2H.4 15:30 | Australian private healthcare sector service utilisation trends for physiotherapists, chiropractors and osteopaths: 2008 - 2017. Roger Engel, Macquarie University Australia

2H.5 15:45 | Harnessing the power of big data in the health of older people. Brigitte Meehan, interRAI Services, TAS New Zealand

Culturally safe health care for Indigenous women and families

Symposium Lead: Anna Adcock (Ngāti Mutunga, Aotearoa), Centre for Women's Health Research, Victoria University of Wellington

Rationale for Symposium:

The evidence is very strong that the first five years of life starting from pregnancy are crucial for a broad range of health outcomes and for the long-term achievements of children as adolescents and adults. However, in both Aotearoa New Zealand and Australia, Indigenous women and their infants are experiencing more harm than New Zealand European and non-Indigenous Australian women and infants. Disparities in health outcomes include higher rates of maternal and neonatal death, and higher rates of preterm birth. When a preterm baby survives, they are more likely to experience morbidity that may last a lifetime. Such disparities are rooted in systematic disadvantage including reduced access to health care, culturally inappropriate models of health care, and historical trauma and disenfranchisement. In order to achieve equity, health services in Aotearoa New Zealand and Australia need to address current barriers to culturally safe and appropriate care.

Topic description

Culturally safe maternal and neonatal care for Indigenous families is key to eliminating current disparities in health outcomes. In this symposium, Indigenous and non-Indigenous researchers working in Indigenous-centred maternal and infant health research in Australia and Aotearoa New Zealand will present ideas on culturally safe care. The common thread binding the presentations is the acknowledgement of the sovereignty of Indigenous women and families, and the importance of paying attention to their concerns, needs and aspirations about health and wellness.

Presentation one

Dr Yvette Roe (Njikenā Jawuru, West Kimberley region, Western Australia), Molly Wardaguga Research Centre, Charles Darwin University, Brisbane.

Overview: The Indigenous Birthing in an Urban Setting (IBUS) study aims to improve the birthing outcomes for Aboriginal and Torres Strait Islander Women in an urban setting. This new model of care is informed by the Birthing on Country literature and Guiding Principles, and is conducted in partnership with two local Aboriginal Community Controlled Health Organisations. Redesigning the health service, investing in workforce, strengthening family capacity and community empowerment are key components of this service. These will be discussed.

Presentation two

Dr Sophie Hickey and Prof Sue Kildea, Molly Wardaguga Research Centre, Charles Darwin University, Brisbane.

Overview: This presentation shares exciting results of the Indigenous Birthing in an Urban Setting (IBUS) study. Its impact and evaluation will be discussed, as well as next steps for strengthening the cultural safety of maternity care for Aboriginal and Torres Strait Islander Women in Australia. The importance of knowledge translation to inform replication and scaling-up of these services will also be discussed.

Presentation three

Kaumātua and community researcher Matthew Bennett (Te Arawa, Tainui, Ngāti Kahungunu, Ngāti Pāhauwera, Aotearoa) and Francesca Storey, Centre for Women's Health Research, Victoria University of Wellington.

Overview: He Korowai Manaaki (HKM) is a strengths-based Iwi (tribe)/research centre partnership that started with an invitation by the Iwi, to work together to address disparities in health outcomes for Māori women and families. Walking with the regional community, starting with an asset mapping exercise, facilitated the establishment of a steering group to drive the development and undertaking of an augmented maternity care pathway, supported through primary care. HKM prioritises the views of Māori women and their families around health and social needs. Key learnings from the partnership, and the benefits of culturally safe, wrap-around care will be discussed.

Presentation four

Anna Adcock (Ngāti Mutunga, Aotearoa), Centre for Women's Health Research, Victoria University of Wellington

Overview: He Tamariki Kokoti Tau is a Kaupapa Māori (by, with, and for Māori) qualitative longitudinal study that examines the experiences of families of preterm Māori infants as they journey along the preterm care pathway. The study aims to give voice to their experiences, views and attributions, with the goal of service transformation to ensure that families are supported as they face the joys and challenges of parenting their precious taonga (newborn gift). This research has found variation in access to culturally safe care for Māori families experiencing preterm birth. Recommendations for health system improvement will be discussed.

Local health services evaluation and decision-making: a framework and applied studies

Symposium Lead: Jonathan Karnon, Flinders University

Rationale for Symposium:

Evidence on the effects of new pharmaceuticals is reviewed carefully to inform funding decisions. There is a large evidence base of comparative research on the effects of health service interventions (e.g. models of care), but there is no common framework for the formal consideration of this evidence to inform priorities and decision-making within the Australian health system. Comparative evidence on health services may not be as directly transferable as evidence on pharmaceuticals and medical devices, it may need to be adapted to local settings, which leads to the concept of evidence-informed, rather than evidence-based, decision-making. This means the evaluation models used to inform funding decisions for new pharmaceuticals cannot necessarily be applied to inform decision-making around local health services. Local models of evaluation should integrate local health systems data, research evidence and stakeholder preferences to produce a socio-technical approach to supporting evidence-informed prioritisation and decision-making.

Topic description:

This symposium presents research on alternative approaches to using comparative effectiveness evidence to inform prioritisation and decision-making around investments to improve the organisation and delivery of health care. Presentations include a review of relevant comparative effectiveness evidence, a framework for local health service evaluation and decision-making and findings from two case study evaluations to inform local health services prioritisation and decision-making.

Presentation one

Penny Reeves, Andrew Searles, Christine Jorm (Hunter Medical Research Institute), Jon Karnon (Flinders University)

Overview: **Local evaluation and decision-making framework.** The Australian Health Research Alliance (AHRA) developed a framework to support the local level evaluation of healthcare with reference to the national context. Development of the framework identified several competing evaluation models as well as important gaps in the evidence used for decision making in healthcare. The framework integrates information on prioritised local needs, existing and novel technologies to address those needs, and a process to facilitate information provided to decision makers to assess the expected value from implementing those technologies.

Presentation two

Jackie Roseleur, Andrew Partington, Jon Karnon (Flinders University)

Overview: Evidence-base 2: a scoping review of comparative health services evaluations undertaken in Australia identified over 700 published studies in the last 10 years. The evidence base covers the spectrum of clinical areas and health service settings, illustrating the breadth and depth of comparative Australian health services research. It also provides a reference source for health services to identify evidence-based options for adapting the organisation and delivery of specific health services.

Presentation three

Andrew Searles, Penny Reeves, Christine Jorm (Hunter Medical Research Institute)

Overview: Case study: This study used aspects of the framework described in Presentation 2. A local health system priority was identified as reducing unnecessary transfers from aged care facilities to emergency departments (ED). It was addressed through a locally developed model of care that was

evaluated to enable health services to consider its effectiveness compared to usual practice. The value derived from the model of care was mostly captured by cost avoided through reductions in ambulance transfers and ED use. The evaluation highlighted an important and rectifiable limitation in the information typically provided to decision makers from economic evaluations.

Presentation four

Andrew Partington, Jon Karnon (Flinders University)

Overview: Case study: bottom-up evidence-informed prioritisation and decision-making in response to performance data showing longer length of stay for patients undergoing tracheostomy in a specific hospital. Comparative analysis of health systems data was undertaken to compare processes, costs and outcomes to identify potential areas for improvement in the organisation and delivery of care for the target population. Relevant comparative research evidence was reviewed to identify potential service interventions, the costs and benefits of which were considered in the context of existing local services and processes.

Integrated services to improve the health of Pacific peoples in Aotearoa New Zealand

Symposium Lead: Professor Jacqueline Cumming, Health Services Research Centre, Victoria University of Wellington

Rationale for Symposium:

In this symposium members of the research team seek to share and discuss the variety of methods and perspectives employed in this research. This will be an opportunity not only to share our research findings and process to date, but debate the use of realist research methods – a burgeoning research field – and the challenges and benefits of blending Pacific research methods with realist methods in a qualitative study in Aotearoa New Zealand.

Topic description:

This symposium will focus around an HRC funded project 17/367 *Integrated Services to improve the health of Pacific peoples*. In this research, we are interested in understanding the health and social service delivery experiences of Pacific families with complex needs. Services for this population are usually delivered by a large group of professionals working across different organisations. The fragmented service delivery that results can lead to major inconvenience, wasted resources and poor health and social outcomes. More integrated care is seen as key to improving quality of care and health outcomes for service users and to ensuring better use of resources. This research will provide a greater understanding of social and cultural processes and practices that underpin Pacific family's experiences of health and social services, how they experience fragmentation, and what is needed to enhance integrated health care and social services policy & delivery. It will also provide a perspective on Pacific worldviews and make a substantial contribution to the realist methodological literature in NZ.

Presentation one:

Integrated care in Aotearoa New Zealand

Prof Jacqueline Cumming, Health Services Research Centre, Victoria University of Wellington

Overview:

In our research, 'integrated care' is viewed as the outcome from a service user perspective, emphasising health services delivery that is well coordinated, with a seamless journey as people are supported by individual health professionals working across different health care delivery organisations. In NZ, the emphasis has been on achieving more integrated care horizontally within primary health care (PHC) and community settings, and vertically between PHC/community and hospital settings, as well as between health and social services. This presentation will explore the policy implications of integrated care in Aotearoa NZ.

Presentation two:

Pacific peoples experience of integrated care: A literature review

Dr Debbie Ryan, Pacific Perspectives Ltd

Overview:

This presentation will provide an overview of the international and national research literature about integrated health and social services with a focus on how services respond to the needs of Pacific peoples and families in Aotearoa New Zealand.

Presentation three:

Realist and Pacific research methodologies

Dr Ausaga Fa'asalele Tanuvasa, Health Services Research Centre, Victoria University of Wellington

Overview:

Our research project is be guided by a realist methodology which recognises that not all initiatives are successful at achieving their outcomes in all contexts all of the time. The approach emphasises identifying 'what works, for whom and in what circumstances (contexts)'. Within this overarching realist framework, we will take an interpretive approach that draws on an indigenous worldview unique to Pacific peoples. This presentation will explore the approach taken by the research team to employ these research methods.

Presentation four:

Conducting qualitative realist research with Pacific families

Dr Marianna Churchward, Health Services Research Centre, Victoria University of Wellington

Overview:

Six focus groups were held in Phase 2 of the HRC17/367 Integrated Services project. Focus Groups were held in Porirua, Wellington and South Auckland, attended by 43 individuals making up 25 families. We are currently in Phase 3 of the project which involves a 12-month case study of [up to] 15 Pacific families. In this presentation we will describe our experiences of conducting qualitative realist research with Pacific families in Aotearoa New Zealand.

Establishing an Effective Research Partnership Between a University and a Local Health District

Symposium Lead: Associate Professor Judy Mullan, Director, Centre for Health Research Illawarra Shoalhaven Population (CHRISP), University of Wollongong

Rationale for Symposium:

Australia is a leader in collecting quality health data but lags behind other countries in effectively using it (OECD, 2015). This results in missed opportunities for research to inform evidence-based healthcare delivery, especially at a regional level where health services need to reflect local population need. Effective use of data is central to improved patient outcomes, cost reduction, accountability and service improvement.

Topic description:

This symposium describes how a regional health network in NSW is maximising the use of its data and reforming the research cycle through the creation of a high quality, de-identified linked health data platform. Key success factors such as collaborations between clinicians and academics, and ethics and local governance processes will be described, to demonstrate the potential of this resource in any health network.

The presentations in this symposium will outline the establishment of a research partnership between the Illawarra Shoalhaven Local Health District (ISLHD) and the University of Wollongong. The partnership founded the Centre for Health Research Illawarra Shoalhaven Population (CHRISP) and the establishment of the Illawarra Health Information Platform (IHIP) a sophisticated data linkage platform. Research is undertaken by CHRISP's multidisciplinary team in collaboration with clinical and community stakeholders to help build and support research capacity and to address the health care needs at a regional and contextual level. Two case studies will demonstrate how advanced data analytics and research translation are central to the success of the program.

Presentation one

Judy Mullan
Centre for Health Research Illawarra Shoalhaven Population, University of Wollongong

Title of presentation

Establishing an Effective Research Partnership Between a University and a Local Health District

Overview

The Centre for Health Research Illawarra Shoalhaven Population (CHRISP), is a research partnership between the University of Wollongong (UOW) and the Illawarra Shoalhaven Local Health District.

The main goals of the research partnership are to:

- Provide access to high quality health data
- Build capacity for research and development
- Undertake research - priority driven and investigator/clinician driven
- Translate research findings into policy and practice

The multidisciplinary CHRISP team, provides advice and support for each stage of the research process, including identifying research aims, research design, data analytics, dissemination and translation of findings, and access to the data linkage platform (IHIP).

Presentation two

Brendan McAlister^{1,2} & David Webster^{2,3}

¹Illawarra Shoalhaven Local Health District, ²Centre for Health Research Illawarra Shoalhaven Population, University of Wollongong; ³Australian Health Services Research Institute, University of Wollongong

Title of presentation

How to Successfully Implement a Health Databank and Data Linkage Platform

Overview

Many lessons have been learned in the establishment of IHIP, a research databank and data linkage platform. These will be of interest for anyone with a vision for making linked and longitudinal data available in a regional setting.

An overview of IHIP's capabilities and architecture will be presented, along with an outline of strategies to successfully negotiate the establishment of the data platform. These strategies are important because designing functional technology is not the only challenge. Issues related to ethics and data governance, conflicting priorities between stakeholders and vendor management all played a part in the journey.

Presentation three

Victoria Westley-Wise^{1,2}, Kathy Eagar³, Greg Barclay¹, Joanne Davis¹, Judy Mullan², Luise Lago^{2,3}, Samuel Allingham^{3,4}, Zivai Nangati¹, Kay Cope¹

¹Illawarra Shoalhaven Local Health District, ²Centre for Health Research Illawarra Shoalhaven Population, University of Wollongong; ³Australian Health Services Research Institute, University of Wollongong, ⁴Palliative Care Outcomes Collaboration, University of Wollongong

Title of presentation

Leveraging Linked Administrative Datasets to Assess the Quality of End-of-Life Care - A Case Study

Overview

This presentation will demonstrate how integrated routine datasets can be leveraged to enable assessment of the patterns and quality of end-of-life care in a regional population, and so inform the planning and delivery of palliative and end-of-life care services. Datasets include: admitted patients; emergency department; subacute; palliative care outcomes; non admitted; death audits; pathology and radiology orders. Major concepts of quality care that can be examined include: access to palliative care among those who could potentially benefit; frequency of use of emergency departments, inpatient admissions and intensive care; and use of non-beneficial new and ongoing therapeutic and diagnostic interventions.

Presentation four

Luise Lago^{1,2}, Victoria Westley-Wise^{1,3}, Judy Mullan^{1,2}, Kelly Lambert^{1,2}, Rebekah Zingel³, Thomas Carrigan³, Wayne Triner³, Kathy Eagar².

¹Centre for Health Research Illawarra Shoalhaven Population, University of Wollongong; ²Australian Health Services Research Institute, University of Wollongong; ³Illawarra Shoalhaven Local Health District.

Title of presentation

Data Analytics Insights for Frequent Emergency Department Attenders – A Case Study

Overview

Regional health authorities are increasingly developing **advanced data analytic skills**, to leverage extensive data only held locally. Combining these skills with local governance and ethics processes provides decision makers with **robust, locally relevant** research findings in a **shortened timeframe**.

This presentation outlines how CHRISP use advanced data analytics on IHIP data to uncover novel insights into health service utilisation. A case study on frequent emergency department attenders demonstrates the benefit of advanced data analytics, and the impact within and beyond the region. We detail how **research translation is embedded in the research process** to ensure changes to policy and practice.

What truly matters to patients? Improving the measurement of patient reported outcomes in clinical quality registries

Symposium Lead): Darshini Ayton, Monash University, School of Public Health and Preventive Medicine

Rationale for Symposium:

What truly matters to patients? Improving the measurement of patient reported outcomes in clinical quality registries

Topic description:

There is growing international momentum around using patient-reported outcome measures (PROMs) to drive improvements in quality of care, and to achieve better value for patients and funders. Routine use of PROMs in clinical quality registries can support clinical practice and the delivery of healthcare services. This symposium presents the steps involved in improving the measurement of patient-reported outcomes within a state-wide population-based cardiac registry—the Victorian Cardiac Outcomes Registry (VCOR). A mixed-methods project was undertaken in collaboration with industry partners to develop a PROM for patients undergoing percutaneous coronary interventions (PCI), which was integrated with objective clinical measures to provide a holistic assessment of care. Genuine patient-centred methods were used to ensure that the patient's perspective was included in the development of the PROM. This symposium includes four presentations. The first will explore the main outcomes patients consider to be important following their procedure. The second presents findings from a discrete-choice experiment to quantify patient perspectives about the outcomes they most value, and the third presentation will outline the use of Rasch analysis to identify the final set of items to be included in a PROM. The final presentation describes how the PROM was integrated with objective clinical measures to provide a more holistic measure of patient wellbeing following a PCI. The symposium will conclude by discussing how PROMs can be used in research and the healthcare setting to achieve a more person-centred approach to quality and safety improvement.

Presentation one:

What truly matters to patients? Exploring patient-reported outcomes following percutaneous coronary intervention

Darshini Ayton, Anna Barker, et al

Overview:

Percutaneous coronary intervention (PCI) is a cardiac procedure used to treat obstructive coronary artery disease. Patient-centred care is a priority in cardiovascular health and leads to increased patient satisfaction, engagement with rehabilitation activities and reduced anxiety. Routine collection of patient-reported outcomes (PROs) can inform patient-centred care. A systematic review undertaken by the authors demonstrated that existing cardiac patient-reported outcome measures (PROMs) have limited patient involvement in their development. This presentation will summarise qualitative research undertaken with patients who had undergone PCI in the previous 6 months to identify and explore outcomes that patients perceive as important following the procedure.

Presentation two:

What truly matters to patients? Symptoms and feelings valued by patients after a percutaneous coronary intervention: a discrete-choice experiment to inform development of a new patient-reported outcome

Renata Morello, Anna Barker et al

Overview:

This presentation summarises findings from a discrete-choice experiment (DCE) to identify which symptoms and feelings following PCI are most important to patients. The

DCE consisted of two hypothetical scenarios of 10 symptoms and feelings experienced after PCI, described by three levels. Of the 138 individuals recruited, 129 (93%) completed all 16 choice sets. Preference weights were estimated using a conditional logit model. Eight symptoms and feelings were identified as being important to patients following a PCI, with the most important being *feeling unhappy*, followed by *physically being able to do usual activities*.

Presentation three:

What truly matters to patients? Developing a new patient-reported outcome measure using Rasch analysis

Sze-Ee Soh, Anna Barker, Darshini Ayton et al

Overview:

This presentation summarises the use of Rasch analysis to select the best set of items to form a concise and psychometrically sound PROM, using a consecutive sample of 200 patients registered in the Victorian Cardiac Outcomes Registry (VCOR) 30 days following their percutaneous cardiac procedure. Five items were identified that can be included a PROM for patients following PCI: pain or discomfort, shortness of breath, confidence in performing usual activities, feeling unhappy and having trouble sleeping. Whilst further psychometric evaluations of the PROM are recommended, the items identified capture the patient's perspective of the recovering following the procedure.

Presentation four:

What truly matters to patients? Development of a percutaneous coronary intervention patient level composite measure for a clinical quality registry

Susannah Ahern, Darshini Ayton, et al

Overview:

In healthcare, composite measures combine data to provide a comprehensive view of patient outcomes. Despite composite measures being a valuable tool, the patient-centred perspective is often missing. This presentation summarises a study aimed to develop a composite measure for an established cardiac outcome registry. Both patients and clinical experts participated in this study. The final composite measure included five clinical outcomes with a total weighting of 90%, and the overall PROM score that comprised 10% of the total weighting. This composite score provides a more holistic reported measure of individual patient wellbeing at 30 days post their PCI-procedure.

A systematic review of process evaluations of primary care interventions addressing non-communicable diseases

Hueiming Liu^{1,2}, Alim Mohammed¹, Janani Shanthosh¹, Madeline News¹, Tracey-Lea Laba^{1,3}, Maree L. Hackett¹, David Peiris¹, Stephen Jan¹

¹The George Institute for Global Health, University of New South Wales, ²University of Sydney, ³The University of Sydney, Menzies Centre for Health Policy, Faculty of Medicine and Health

Objective

Process evaluations contribute to improving health systems performance because they address questions of for whom, how and why complex interventions had an impact. To inform this growing methodology, we synthesised the methods and main findings of process evaluations of primary care interventions.

Methods

Systematic review using the UK Medical Research Council guidance for process evaluations as a guide. Academic databases were searched from 1998 till June 2018 by two independent reviewers for process evaluations of primary care trials that aimed to improve outcomes for patients with non-communicable diseases.

Lessons Learned

Sixty-nine studies were analysed. There was an overall inconsistency in how process evaluations were conducted and reported. The main weakness is that only 30 studies were underpinned by a clear intervention theory often facilitated by the use of existing theoretical frameworks. Main strengths were robust sampling strategies, and triangulation of qualitative and quantitative data to understand intervention's mechanisms. Findings were synthesized into three key themes: 1) a fundamental mismatch between what the intervention was designed to achieve and local needs, 2) the required roles and responsibilities of key actors were often not clearly understood and; 3) the health system context – factors such as governance, financing structures and workforce- if unanticipated could adversely impact implementation.

Implications

Greater consistency is required in the methods used and reporting of process evaluations, including careful use of intervention theory. More emphasis on formative research in co-designing interventions may better align the intervention with local stakeholders' needs and minimise unanticipated consequences due to context-specific barriers.

Variation in American primary care practice performance across different high-need subgroups

Andrew Old^{1,2}, Maike V. Tietschert², Jose Figueroa³, Arnold Milstein², Sara J. Singer²

¹The Commonwealth Fund, ²Stanford University, ³Harvard University

Objective

To understand whether performance of primary care practices varies across three distinct high-need subgroups: adults with major complex chronic conditions, frail elders, and Medicare beneficiaries under 65 with disability.

Methods

Cross-sectional analysis of cost and two quality indicators for primary care practices using a 20% sample of Medicare administrative claims data from 2015. Quality measures included risk-adjusted 30-day hospital readmissions and preventable hospitalizations related to ambulatory care sensitive conditions, which were calculated using multivariable linear regression models adjusting for patient demographics, comorbidities, and dual (Medicare and Medicaid) eligibility status. Practices were ranked and divided into terciles based on performance for each of the three high-need subgroups across costs and overall quality. Practices who cared for at least 30 patients in each subgroup were included for variation analysis.

Lessons Learned

There is little relationship between cost and quality in US primary care with significant variation between practices in their care for different high-need subgroups. High performance for one patient subgroup was not a good predictor of high performance for other subgroups and high performance for all types of high-need was rare.

Implications

Our results suggest a need to ensure that incentives targeting high-need groups are designed for the specific subgroup of interest and are reaching the intended patients. For practices, our results suggest that caring for different groups of patients with high-needs may require tailored approaches in order to achieve best value. Initiatives to improve care for patients with high-needs should consider heterogeneity among subgroups in both design and evaluation.

Underutilized and undertheorized: The use of hospitalization for Ambulatory Care Sensitive conditions for assessing the extent to which primary healthcare services are meeting needs in BC First Nation communities

Josée G. Lavoie, Sabrina T Wong, John D. O'Neil, Michael Green, Amanda Ward

Background: Since the 1960s, the federal government has been providing or funding a selection of community-based primary healthcare (PHC) programs on First Nations reserves. A key question is whether local access to PHC can help address health inequities in First Nations on-reserve communities in British Columbia (BC).

Objectives: This paper examines whether hospitalization for Ambulatory Care Sensitive Conditions (1) can be used as a proxy measure for the organization of PHC in First Nations reserve areas; and (2) is associated with premature mortality rates.

Methods: In this descriptive correlational study, we used administrative data available through Population Data BC, including demographic and ecological information (i.e. geo-codes indicating location of residence). We used two different measures of hospitalization: rates of episodic hospital care and rates of length of stay. We correlated hospitalization rates with premature mortality rates and the level of care available in First Nations communities, which depends on a federal funding formula based upon community size and, more specifically, the level of isolation from a provincial point of care.

Results: First Nations communities in BC that have local 24/7 access to PHC services have similar rates of hospitalization for ACSC to those living in urban centres. This is demonstrated by the similarities in the strengths of the correlation between premature mortality rates and rates of avoidable hospitalization for conditions treatable in a PHC setting. This is not the case for communities served by a Health Centre (weaker correlation) and for communities serviced by a Health Station or with no on-reserve point of care (no correlation).

Conclusions: Improving access to PHC services in First Nations communities can be associated with a significant reduction in avoidable hospitalization and premature mortality rates. The method we tested is an important tool that could serve health care planning decisions in small communities.

Patient attachment to their primary care provider: Primary care Reform in Ontario in 2019

Michael E. Green^{1,2}, Eliot Frymire^{1,2}, Liisa Jaakkimainen², Aisha Lofters², Kamila Premji^{2,3}, Tara Kiran^{2,5}, Imaan Bayoumi^{1,2}, Shahriar Khan², Richard H. Glazier^{2,4,5}

¹Department of Family Medicine Queen's University, ²ICES, ³University of Ottawa, ⁴University of Toronto, ⁵CIHR Institute of Health Services and Policy Research

Objective: Recent primary care reforms in Ontario, Canada, have resulted in a restructuring of primary care at the local or regional level. An important aspect of these health care reforms is to develop models of care that minimize unattached and underserved patients. Accurate measurement of who is and is not attached is important for these initiatives. The objective of this work is to improve the definition of the unattached patient in health administration datasets.

Methods: Using health administrative data from ICES, we refine the algorithm for measuring attachment to a family physician. This approach will highlight attachment by geographic subregions within the province of Ontario. The use of geographic information system(GIS) software mapping techniques will use this data to examine province-wide and local small area-level distribution of who is unattached and poorly attached and the proportion of attachment to primary care physicians and primary care teams. The design will include adjustment for age, gender, co-morbidity (John's Hopkins ACG and RUB), SES, and rurality (RIO Band).

Lessons learned: With these networks, most patients are attached in major urban centres.. Those who are not attached are that 2 to 3% of the population who have had no contact with the health care system.

Implications: The study will outline the proportion and distribution of unattached and underserved patients relative to health care providers in southern Ontario by sub region. We anticipate regional variation in attachment levels will be directive for resourcing and prioritization of health programming in specific regions and sub regions.

Quantifying adverse drug reaction under-reporting then determining the risk rating and effect on patient admission length for each event

Michelle Edmonds¹, Centine L. Snoswell¹⁻²

¹Princess Alexandra Hospital, Brisbane

²Centre for Health Services Research, The University of Queensland

Objectives

To quantify under-reporting of adverse drug reactions (ADRs) and determine their risk rating and effect on patient admission length.

Methods

A retrospective audit of 130 International Classification of Disease (ICD-10) adverse drug event codes was conducted and assessed against existing reports from the ADR committee. Once identified, the ADRs were assigned a risk rating against a risk matrix tool. A subset of the population was case-matched to determine if the ADR had effect on the patient admission length.

Lessons Learned

ADRs contribute to increased hospital admissions, poorer patient outcomes and significant clinical and economic burdens to healthcare systems. From 130 ICD-10 codes, 84 ADRs were identified, 0% (0/84) of these were reported to the hospital ADR committee. Assessing these ADRs against the risk matrix, 11% (9/84) were low risk, 26% (22/84) were medium risk, 43% (36/84) were high risk and 20% (17/84) were very high risk.

Ten of the cases were compared to control patients selected based on primary ICD-10 code, admitting speciality and discharge ward. Four of the ADR cases which involving bleeding, hepatitis, and Heparin Induced Thrombotic Thrombocytopenia Syndrome (HITTS) resulted in an increase of 14-34 days in admission length for patients compared to controls.

Implications

The ADR committee received 66 reports the previous year however, extrapolating audit results, they should receive closer to 350 reports annually. Examining process related to ADR reporting will likely have positive patient outcomes and reduce admission lengths if feedback from these cases can be used to prevent reoccurrence in the future.

A systematic review and meta-analysis of interventions targeting antibiotic use in aged care facilities

Magdalena Raban,¹ Claudia Gasparini, Ling Li,¹ Melissa Baysari,² Johanna Westbrook¹

¹Australian Institute of Health Innovation, Macquarie University, ²Faculty of Health Sciences, The University of Sydney

Objectives

High levels of inappropriate antibiotic use have been reported in residential aged care facilities (RACFs), putting residents at risk and contributing to the burden of antibiotic resistance. Our objective was to conduct a systematic review and meta-analysis of interventions targeting antibiotic use in RACFs.

Methods

We searched four databases for original research articles reporting results of controlled and uncontrolled interventional studies in RACFs. Data on antibiotic use and appropriateness of antibiotic use, as well as results of any process evaluations were extracted. The risk of bias was assessed for each study using an adaptation of the Cochrane Effective Practice and Organisation of Care group's risk of bias assessment.

Lessons Learned

Of the 19 studies included, ten used controls and five were cluster randomised trials. Four were rated as having an overall low risk of bias. All interventions included multiple-components and education strategies were the most common component used (17 studies). Meta-analyses were conducted on three outcomes: percentage of residents on an antibiotic, appropriateness of decision to treat with antibiotics, and appropriateness of antibiotic selection. No intervention was associated with a significant change in these outcomes. Six studies reported results of process evaluations and highlighted context specific barriers to intervention implementation and effectiveness.

Implications

There is limited evidence of effective interventions to reduce inappropriate antibiotic use in RACFs. The complex nature of the RACF setting presents unique challenges to intervention implementation. New intervention approaches, and stronger study designs with controls, are needed to tackle overuse of antibiotics in this setting.

Designing and implementing an evidence-based pre-admission clinic for private patients undergoing elective surgeries

Jingjing He¹, Blanca Gallego²

¹Macquarie University Hospital

²Australian Institute of Health Innovation (AIHI), Macquarie University

Objective

Pre-admission clinic (PAC) is an outpatient clinic to prepare patients for surgery and hospital stay. In Australia, approximately 67% of elective surgery admissions were in private hospitals (2016-17). However, wide variations in resource input and care exist across PACs in private hospitals. This indicates a service gap in the provision of care to private patients. This study aimed to redesign and implement an evidence-based PAC model for elective surgery patients in private hospitals.

Methods

An evidence-based approach was used to redesign the PAC. The new PAC was trialled for 10 weeks. Outcome measures included surgical cancellations, last-minute cancellations, length of stay (LOS), discharge delays, adverse clinical events, and patient satisfaction were compared pre and post-trial.

Lessons Learned

A total of 10,854 surgical cases were analysed pre and post-trial. The overall cancellation rate remained stable (14.7% vs 14.6%; $p=0.95$). The last minute surgical cancellation rate was reduced from 10.8% to 9.8% ($p=0.02$). Although no difference was observed in average LOS (2.18 days vs 2.05 days; $p=0.39$), the percentage of discharge delays was reduced from 17.3% to 15.7% ($p=0.03$). The incidence of adverse events was too low to draw statistical conclusion. A sample of 102 patients completed the satisfaction survey. The overall patient satisfaction improved from 81.4% to 90.2% ($p=0.03$).

Implications

Implementing an evidence-based PAC may reduce last-minute surgery cancellation, hospital discharge delays and improve patient satisfaction. Further research is warranted to explore the association between PAC, patient outcomes and hospital resources to drive improvements in the perioperative service delivery.

Community Eye Care: improving access and reducing costs through collaborative care for diabetic retinopathy

Belinda Ford^{1,2}, Blake Angell², Gerald Liew^{1,3}, Andrew White^{1,2,3} Lisa Keay^{2,4}

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⁴ School of Optometry and Vision Science, UNSW Sydney

Objective

This study assessed service efficiency and costs of a community-based model of care (C-EYE-C) based on collaborative care for patients with low-risk diabetic retinopathy between community optometrists and ophthalmologists compared to hospital care.

Methods

A medical record audit of new patients referred for diabetic retinopathy was conducted for both standard hospital care and C-EYE-C. Attendance, wait-time, diagnosis and management were recorded. The health system cost for each model was calculated using hospital and industry estimates for staffing, equipment, infrastructure, and supplies per encounter. Using a weighted kappa, we calculated the agreement between optometrist diagnosis/management and virtual ophthalmologist review.

Lessons learned

Westmead Eye Clinic received 264 new low-risk diabetic retinopathy referrals in 2016/2017, 90 were allocated to hospital care (2016) and 174 allocated to C-EYE-C (2017). There was no difference in attendance across both models (72% vs 78%, $p=0.719$). C-EYE-C demonstrated a shorter median wait-time from referral to appointment (88 days vs 124 days). The majority of patients (59%) attending C-EYE-C did not need hospital follow-up; 30% needed ophthalmologist review for retinopathy. For hospital care the average cost was \$171 per patient, for C-EYE-C it was \$109. The diagnostic agreement between C-EYE-C optometrists and virtual ophthalmologist was 75% ($k=0.61$, CI 0.51-0.72); management agreement was 74% ($k=0.57$, CI 0.46-0.67).

Implications

Under the C-EYE-C model, hospital capacity improved and there were reduced wait-times and lower costs to the health system (-38%). Optometrists and ophthalmologists assessments were in good agreement, but indicate that specialist oversight is essential in collaborative care.

Integrating implementation and evaluation using stepped-wedge randomisation: Effectiveness of a new model of care for community acquired pneumonia

Melanie Lloyd^{1,2}, Amalia Karahalios², Edward Janus^{1,2}, Elizabeth Skinner^{1,2,3}, Terry Haines³, Anurika de Silva², Stephanie Lowe¹, Melina Shackell¹, Lucy Desmond¹, Soe Ko¹, Harin Karunajeewa^{1,2}.

¹Western Health, ²University of Melbourne, ³Monash University.

Objectives

Community-acquired pneumonia (CAP) is a leading cause of hospital admission and health costs in Australia. We evaluated the effectiveness of a multidisciplinary service designed to improve adherence to a bundle of interventions with prior proven efficacy in CAP (early mobilisation, routine malnutrition screening, corticosteroids, and early switch to oral antibiotics).

Methods

Within a pragmatic, stepped-wedge, randomised controlled study design, all CAP patients hospitalised under a General Internal Medical (GIM) were included. Eight GIM units were randomised to either: i) usual care, or ii) care supported by a dedicated "CAP Service". Outcomes included compliance with evidence-based practice, length of stay (LOS), mortality, adverse events and readmission.

Lessons Learned

Adherence to evidence-based practice was significantly better under the CAP Service (n=401), compared to usual care (n=415). However, this did not translate into any corresponding improvement in patient or health service outcomes, including LOS (predicted mean 3.4 vs 3.5 days), mortality (15.7% vs 15.8%) and readmission (31.1% vs 27.6%), and there was a higher incidence of gastrointestinal bleeding in the CAP Service group (2.2% vs 0.7%).

Implications

An evidence-based best practice bundle was not effective when implemented within routine care, despite previous clinical trials demonstrating efficacy of the individual interventions. These contradictory results may be due to the systematic exclusion of elderly individuals with complex comorbidity from prior research. Our study demonstrates an innovative, ethically and analytically robust approach to embedding health services research where effectiveness can be evaluated in a routine setting, greatly enhancing the external validity of results.

Using existing electronic health record data to measure health status in residential aged care

Kimberly Lind¹, Lindsey Brett¹, Magdalena Raban¹, Mikaela Jorgensen¹, Andrew Georgiou¹, Johanna Westbrook¹

¹Macquarie University

Objectives

The number of older Australians using aged care services is increasing, yet a clear picture of their health is lacking because this population is often overlooked in national health studies or assessed using methods prone to under-identification of conditions. Our objective was to develop a novel approach to measuring the health status of older Australians living in residential aged care facilities using electronic health record data.

Methods

Using a dynamic retrospective cohort of 9436 residents in 68 facilities during 2014-2017, we developed an algorithm to identify residents' conditions using Aged Care Funding Instrument assessments, medications administered and clinical notes from electronic health records. Cluster analysis was used to describe the combinations of health conditions occurring among residents.

Lessons Learned

The prevalence of many health conditions among residents is underestimated by previous reports and residents are medically complex. We identified seven distinct clusters of co-occurring chronic conditions. The most complex cluster had residents with the longest stays in residential care, and the youngest cluster had high rates of conditions that likely required high levels of social and healthcare support prior to admission to residential care. Aged care electronic health record data have the potential to be used to better understand the complex health needs of this vulnerable population.

Implications

Evidence-based aged care policy and practice require accurate measurement of health status. Electronic health record data can provide a more accurate picture of the residential aged care population needs. This information is central to targeting services and monitoring quality and safety.

Trends in the use of Computed Tomography in the Emergency Department in Western Australia, 2003 to 2015: A linked administrative dataset analysis

Suzy Maxwell, Ninh Ha and Rachael Moorin
School of Public Health, Curtin University

Objective

The rapid increase in the use of computed tomography (CT) globally has raised concerns about the appropriate use of CT, cumulative population radiation exposure and cost. While there is evidence of increasing CT use in Australia overall, little is known about trends in CT use and characteristics and patient demographics in CT in the Emergency Department (ED) in Australia.

Methods

This study used a linked administrative dataset of 2,021,594 tertiary hospital ED presentations in Western Australia between 2003 and 2015 to explore trends in CT use. Poisson regression was undertaken on a dataset aggregated by patient and visit characteristics (including patient demographics, arrival and visit type, presentation time and day, triage code, external cause of injury and symptom) to provide rates of CT use per 1000 ED presentations overtime and to identify ED presentation characteristics associated with CT use.

Lessons learned

Seven per cent of ED episodes had an associated CT episode. Between 2003 and 2012 the rate of CT scanning almost doubled from 62 to 112 per 1000 ED presentations (unadjusted). Males, older individuals, those attending ED as a result of pain, neurological symptom or injury, with higher priority triage code or presenting on a weekday were the most likely to have an ED related CT.

Implications

These data are invaluable for health planning and policy purposes. Increased use of CT does not necessarily mean CT is being overused. However, these data may assist in the identification of areas of possible over use and/or demonstrate the impact of policy changes.

Decomposition analysis of growth in computer tomography utilisation in tertiary hospitals: An analysis of linked administrative data in Western Australia

Ninh Ha, Suzy Maxwell and Rachael Moorin
School of Public Health, Curtin University

Objectives

Although rapid growth in the use of computer tomography (CT) has raised concerns about increasing population radiation exposure, little is known about factors driving this growth. This study examines trends and contribution of factors associated with increasing CT use.

Methods

We conducted a cross-sectional study of 1,797,157 tertiary hospital admissions between 2003 and 2015 in Western Australia. The data included details of CT protocols and patient demographic and clinical characteristics. The rates of CT use are determined per 100 admissions by patient age, sex, principal diagnosis and body region. Multivariate decomposition analysis is performed to decompose the changes in CT use over the study period into a component attributable to variation in distribution of the observed characteristics and a component attributable to unobserved factors.

Lessons learned

Between 2003 and 2015 the rate of CT use increased across diagnostic groups and body regions, with the exception of respiratory conditions and chest scans, respectively. Decomposition analysis suggests that variation in distribution of the observed factors including sex, age, indigenous status, accessibility, clinical conditions, comorbidity, unplanned admission and private funding sources can explain 75% of the increase in CT scan use in tertiary hospitals. Variation in distribution of unplanned hospital admissions (28%) is the highest contributor, followed by the number of comorbidities (7.3%) and injury (3.5%).

Implication

This study provides important empirical evidence to understand factors driving the growth of CT use in tertiary hospitals. Any attempts to reduce inappropriate use and the radiation exposure in tertiary hospitals may be oriented to the particular subpopulation such as unplanned admission, injuries and comorbidities.

Australian private healthcare sector service utilisation trends for physiotherapists, chiropractors and osteopaths: 2008 - 2017.

Roger M Engel¹, Benjamin T Brown², Reidar Lystad¹, and Michael Swain¹
¹Macquarie University, ²Sydney Scoliosis Clinic

Objective

The objective of this study was to quantify, describe and compare Australian private healthcare sector service utilisation trends for physiotherapists, chiropractors and osteopaths between 2008 and 2017.

Methods

Quarterly data regarding the number, cost and benefits paid for physiotherapy, chiropractic and osteopathy services were obtained from the Private Health Insurance Administration Council and the Australian Prudential Regulation Authority. Data were summated to produce yearly statistics for each profession for the periods 2008-2012 and 2013 -2017. The number of registered providers working in the private sector for each profession were obtained from the Australian Health Practitioner Regulation Agency. The average annual number of services per provider was calculated by dividing the number of services by the number of providers for each profession. Descriptive statistics and overall percentage change over time were calculated for each of the main variables.

Lessons Learned

Total cumulative cost of services across all three professions during the ten-year period 2008-17 was \$12.8 billion. For all three professions, the trend was for less growth in the number of services during 2013-17 compared to 2008-12 with the decline greatest for chiropractic.

Implications

While the overall cost of services for all three professions increased, the average number of services per provider declined between 2013 and 2017, with the greatest decrease seen in chiropractic. This may have implications for the private health insurance sector where disparities in rebates for primary care allied health services has a significant impact on consumer choice about the types of care that is accessed.

Harnessing the power of big data in the health of older people

Michele McCreadie¹

¹interRAI Services, TAS

Objective

Some 746,000 people of the 4.9 million people who live in New Zealand are more than 65 years old. That's about 15% of the total population.

interRAI New Zealand's world leading data set provides us with a growing understanding of the situation of old, frail and vulnerable people. Covering a wide range of aspects of older people's health and wellbeing, and in combination with other datasets, interRAI gives a complete picture of older people's needs.

Methods

interRAI is a comprehensive clinical assessment system used by health professionals across New Zealand to measure health and other aspects of an older person's wellbeing, for example, loneliness, depression, cognition, mobility, support services, care and therapies.

The interRAI dataset is based on approx 120,000 assessments per year covering 12% of over 65s and 42% of over 85s. This data is collected in a data warehouse and provides hundreds of data points on the person's health, wellbeing and social needs.

Lessons Learned

Aggregated data from many assessments is used across New Zealand for quality and resource planning, decision making support and research.

Implications

We have a growing understanding of the situations of elderly, frail and vulnerable people in New Zealand, with a world-class, rich and growing set of Big Data from interRAI assessments.

Studies using New Zealand's interRAI data have investigated dementia, loneliness, social isolation, pharmaceutical use, hip fractures and home care and more are likely.

The presentation will include insights from interRAI data, case studies and research examples.

WEDNESDAY 4 DECEMBER 2019

Concurrent sessions 3A - 3H

3A HSR and indigenous services and communities |

3A.1 16:15 | How is the National Disability Insurance Scheme working for Aboriginal and Torres Strait Islander people and communities? Margaret Kelaheer, University of Melbourne Australia

3A.2 16:30 | Improving Genetic Health Services for Aboriginal and Torres Strait Islander people in three Australian States: Using Consumer and Practitioner Experiences to Design Culturally Safe Policy. Philippa Dalach, University of Melbourne Australia

3A.3 16:45 | Are long-term outcomes following angiography different between First Nations and non-First Nations patients? A retrospective cohort study. Annette Schultz, College of Nursing, University of Manitoba Canada

3A.4 17:00 | Evaluation of a training programme for community pharmacists to deliver a culturally responsive Indigenous Medication Review Service (IMeRSe). Amanda Wheeler, Griffith University Australia

3A.5 17:15 | Cultural determinants of health, wellbeing and safety for Aboriginal and Torres Strait Islander people: a narrative review of reviews. Ebony Verbunt, Centre for Health Policy, Melbourne School of Population and Global Health, University of Melbourne Australia

3B HSR and indigenous services and communities |

3B.1 16:15 | The development of a peer-support strategy that prepares Inuit for shared decision making with healthcare providers in cancer care systems: an integrated knowledge translation study. Ian Graham, University of Ottawa Canada

3B.2 16:30 | The cost-effectiveness of molecular point of care testing for chlamydia and gonorrhoea in remote communities. Caroline Watts, Kirby Institute, UNSW Australia

3B.3 16:45 | Policy lessons from the experiences of Maori women with antenatal services in Tamaki Makaurau. Esther Willing, University of Otago New Zealand

3B.4 17:00 | Improving systems for eliminating crusted scabies in Indigenous communities in the Northern Territory. Karen Gardner, UNSW Canberra Australia

3C E-Health |

3C.1 16:15 | First results of a mixed-design controlled before-after evaluation of five regional health information technology-based programs to improve health and social care coordination. Rachid Salmi, Université de Bordeaux/INSERM U-1219/CHU de Bordeaux France

3C.2 16:30 | Talking Health - assessing clinician communication with consumers using telephone triage and advice services. Rosemary McKenzie, Centre for Health Policy, the University of Melbourne Australia

3C.3 16:45 | Digital Health Enabled Targeted Patient Communication Facilitated Through Healthcare Providers in the Recovery of Fragility Fractures: Meta-Analysis and Comprehensive Systematic Review. Lalit Yadav, The University of Adelaide Australia

3C.4 17:00 | 15 years of telepaediatrics: data discoveries and service successes. Centaine L. Snoswell, Centre for Online Health Australia

3C.5 17:15 | The value, strengths and weaknesses of telehealth. Philippa Crooks, Royal Far West Australia

3D Preventing Hospital Admissions |

3D.1 16:15 | Factors affecting 30-day unplanned readmissions for patients undergoing total hip arthroplasty. Sybil Yeung, ANU Medical School Australia

3D.2 16:30 | A Deep Representation of Longitudinal EMR Data Used for Predicting Readmission to the ICU and Describing Patients-at-Risk. Sebastiano Barbieri, Centre for Big Data Research in Health, The University of New South Wales Australia

3D.3 16:45 | Improving hypertension control in Australia. Jacqueline Roseleur, The University of Adelaide Australia

3D.4 17:00 | Revolving doors: Understanding factors affecting 30-day unplanned readmissions for patients undergoing Total Knee Arthroplasty. Madhur Chhabra, Australian National University Australia

3D.5 17:15 | Trends in Rates and Inequalities in Paediatric Admissions for Ambulatory Care Sensitive Conditions in Victoria, Australia (2003 to 2013). Sharon Goldfeld, Royal Children's Hospital; Murdoch Children's Research Institute Australia

3E Three Minute Thesis Competition |

3E.1 16:15 | Health Insurance Coverage and Associated Factors among Women in Ethiopia: A Secondary Analysis of Ethiopia Demographic and Health Survey Data 2016. Firew Bobo, University of Technology Sydney Australia

3E.2 16:20 | From Head to Heart- listening to Manitoba healthcare leaders' experiences of structural barriers with meaningful engagement of Canada's Truth and Reconciliation Commission's calls to action. Stephanie Van Haute, University of Manitoba Canada

3E.3 16:25 | Yes Wee Can: saving time and money with improved urine sample collection for young pre-continent children. Jonathan Kaufman, University of Melbourne Australia

3E.4 16:30 | Improving patient experience and delivery of scalp cooling treatment in ambulatory cancer care centres in Australia. Jingjing He, The University of Sydney Australia

3E.5 16:35 | Addressing the intentional blank space: medicines reviews for Māori older adults. Joanna Hikaka, University of Auckland New Zealand

3E.6 16:40 | Helping Emergency Department Registered Nurse Manage and Minimise Burnout. Lucy Scott, Emergency Department Middlemore Hospital New Zealand

3E.7 16:45 | 'You've gotta do what you've gotta do'. Prostate cancer patients' perspectives on image guidance in radiotherapy. Amy Brown, Townsville Hospital and Health Service Australia

3E.8 16:50 | Physiotherapy service delivery for spinal pain: A retrospective chart review in a public hospital outpatient service in New South Wales, Australia. Edward Gorgon, The University of Sydney Australia

3E.9 16:55 | Policy making in decentralized health systems - analysis of the delivery of non-communicable diseases prevention and care in Nigeria. Whenayon Simeon Ajisegiri, The George Institute for Global Health, Faculty of Medicine, University of New South Wales Australia

3F Clinical Governance & Decision-Making |

3F.1 16:15 | Has the clinical governance agenda stalled? Findings from the 2017 New Zealand survey of DHB health professional staff. Robin Gauld, Otago Business School New Zealand

3F.2 16:30 | Knowledge and performance inequities: How unresolved nurse short-staffing and the eclipsing of nurses' knowledge undermines the everyday performance of patient safety. Rhonda McKelvie, Massey University New Zealand

3F.3 16:45 | Use of teach-back improves health outcomes but what do we know about its implementation? A systematic review. Alison Beauchamp, The University of Melbourne Australia

3F.4 16:50 | Trade-offs of adjuvant immunotherapy in stage-III melanoma - a clinicians' view? Ann Livingstone, NHMRC Clinical Trials Centre, University of Sydney Australia

3F.5 16:55 | Comparing clinical supervision models as a vehicle for behaviour change in health services. David Snowdon, Peninsula Health Australia

3F.6 17:00 | Developing the multi-professional clinical academic workforce in Australia and New Zealand: a scoping review. Alexandra Edelman, James Cook University Australia

3G Health System Inequities |

3G.1 16:15 | Private choices, public costs. Evaluating cost-shifting between private and public health sectors in New Zealand. Erin Penno, University of Otago New Zealand

3G.2 16:30 | Can't Pay? Go back to Hospital. How a Publicly funded General Practice Clinic can improve access for more disadvantaged populations. Luis Villa, Ko Awatea New Zealand

3G.3 16:45 | Inequities in access to primary health care: lessons from administrative and survey data on enrolments and having a usual GP 2002-2019. Maite Irurzun-Lopez, Health Services Research Center, Victoria University of Wellington New Zealand

3G.4 17:00 | Cost barriers to primary health care for Māori in New Zealand. Mona Jeffreys, Victoria University of Wellington New Zealand

3G.5 17:15 | Publicly-funded oral health service provision for high needs and vulnerable New Zealanders: a national overview. Moira Smith, University of Otago, Wellington New Zealand

3G.6 17:20 | Association between Indonesia's national health insurance and inequity in access to maternal health services. Kim Dalziel, University of Melbourne School of Population and Global Health, Australia

3H Implementation |

3H1 16:15 | Moving past the panic - healthcare staff responses to disinvestment- a systematic search and qualitative thematic synthesis. Debra Mitchell, Monash Health Australia

3H2 16:30 | The value of implementation theory for changing practice in the emergency department (T3 Trial). Findings from a mixed-methods process evaluation. . Elizabeth McInnes, Australian Catholic University Australia

3H3 16:45| Health technologies: A retrospective analysis of factors influencing implementation of an orthopaedic web portal. Jane Desborough, Department of Health Services Research and Policy, Research School of Population Health, Australian National University Australia

3H4 17:00 | An examination of factors that challenge or facilitate implementation of the Baby Friendly Hospital Initiative in Australia and Ten Steps to Successful Breastfeeding in Indonesia: study protocol. Andini Pramono, Australian National University Australia

How is the National Disability Insurance Scheme working for Aboriginal and Torres Strait Islander people and communities?

Angeline Ferdinand¹, Jennifer Cullen^{2,3,4}, Libby Massy^{2,5}, Ravi Savarirayan¹, Gareth Baynam⁶, Yin Paradies⁷, Margaret Kelaher¹

¹ University of Melbourne

² James Cook University

³ Griffith University

⁴ Synapse Australia

⁵ Machado Joseph Disease Foundation

⁶ University of Western Australia

⁷ Deakin University

Objective

The National Disability Insurance Scheme (NDIS) represents a major change in the way the services and supports for people with disability are funded in Australia. Aboriginal and Torres Strait Islander people are disproportionately affected by disability and often underserved by mainstream services. This project examines how the NDIS meets the needs of Aboriginal and Torres Strait Islander people affected by disability and promising strategies to improve the ways the National Disability Insurance Agency (NDIA) works with Aboriginal and Torres Strait Islander people and communities in Queensland and the Northern Territory.

Methods

The project takes a co-design approach to developing a study of the roll out of the NDIS. Interviews were undertaken with NDIA staff, disability support providers, Community Connectors and NDIS participants.

Lesson learned

Overall, the NDIS has the potential to significantly benefit Aboriginal and Torres Strait Islander people living with disability. The NDIA has acknowledged that culturally appropriate engagement and delivery is a necessary component of the support required by Aboriginal and Torres Strait Islander people living with disabilities. However, there remain significant issues in the on-the-ground implementation of the NDIS, particularly in remote locations.

Implications

The results of the study have informed recommendations for the implementation of the Aboriginal and Torres Strait Islander Engagement Strategy and development of the cultural competency framework, communication and engagement with Aboriginal and Torres Strait Islander people and communities, improving participant plans and the provision of disability supports, and strengthening the capacity of organisations to provide appropriate disability support.

Improving Genetic Health Services for Aboriginal and Torre Strait Islander people in three Australian States: Using Consumer and Practitioner Experiences to Design Culturally Safe Policy

Philippa Dalach¹, Angeline Ferdinand¹, Libby Massey², Ravi Savarirayan^{3,4}, Emma Kowal⁵, Yin Paradies⁵, Gareth Baynam^{6,7} and Margaret Kelaher¹

¹University of Melbourne, ²The Machado Joseph Disease Foundation, ³Victorian Clinical Genetics Services, ⁴Murdoch Childrens Research Institute, ⁵Deakin University, ⁶University of Western Australian, ⁷Genetic Services of Western Australia

Objectives

The Better Indigenous Genetic (BIG) Health Services project aims to improve the delivery of genetic health services to Indigenous Australians by explicitly focusing on working with clinical service partners, communities and end-users to develop more effective models for meeting the needs of Indigenous people.

Methods

We used a mixed-methods approach to characterise models of care used by three mainstream clinical genetics services and one specialised Indigenous community organisation. This consisted of 1) a service audit of the mainstream services to determine engagement with Indigenous patients between 2014-2018 and 2) semi-structured interviews with practitioners and consumers to investigate successes and barriers experienced in service access and provision.

Lessons Learned

Our findings illustrate an underrepresentation of Indigenous people in attendance at clinical genetic services and indicate key barriers to access that may disproportionately affect these patients. There was consensus among clinical service providers that current protocols do not support culturally safe care or acceptable outcomes for some Indigenous patients. Key themes emerged from consumer interviews highlighting the requirement for tailored approaches to service provision for Indigenous people, in order to respect individual-, family- and community-level needs and experiences.

Implications

In the absence of accessible and culturally appropriate clinical genetics services, advances in precision medicine are more likely to further widen the gap in health between Indigenous and non-Indigenous Australians. The shared experience of colonisation in Australia, the United States, Canada and Aotearoa/New Zealand, notwithstanding jurisdictional differences in policy on precision medicine in general, makes these comparisons informative for the development of guidelines internationally.

Are long-term outcomes following angiography different between First Nations and non-First Nations patients? A retrospective cohort study

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Objective

To compare health and health services use outcomes among First Nations (FN) and non-FN index coronary angiography patients, while controlling for age, sex, socio-economic status, rural/urban residence, co-morbidity, and revascularization procedures.

Methods

This retrospective study identified all adult index coronary angiography patients in Manitoba, Canada from 2000/01-2008/09 using administrative health data. Patients were stratified into two groups based on whether having an acute myocardial infarction (AMI) in the previous seven days. The five-year all-cause mortality, cardiovascular mortality, all-cause hospitalizations, cardiovascular-related hospitalizations, percutaneous coronary intervention, and coronary artery bypass graft outcomes were compared between FN and non-FN patients using adjusted Cox proportional hazards models. Logistic regression models were used to compare the likelihoods of visiting a family physician, internist, or cardiovascular specialist within 3-months and within 1-year.

Lessons Learned

There were 25,816 patients who had an index angiogram between 2000/01-2008/09. In both the AMI and non-AMI stratified groups, FN patients had an increased risk of all-cause mortality, cardiovascular mortality, all-cause hospitalizations, and hospitalizations for AMI, congestive heart failure, ischemic heart disease. FN patients were also less likely to visit a family physician, internist, or cardiovascular specialist within 3-months or within 1-year after their angiogram.

Implications

FN patients in both groups experienced worse health outcomes even after controlling for individual characteristics. Furthermore, FN patients seem to face disparity in access to follow-up care with both family physicians and specialists; some may be receiving follow-up care from Nursing Stations, where there is likely limited access to expert cardiac consultation.

Evaluation of a training programme for community pharmacists to deliver a culturally responsive Indigenous Medication Review Service (IMeRSe)

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Objective: A cross-cultural training programme was developed to improve pharmacist cultural capability, and promote effective working relationships with Indigenous Australians as part of the IMeRSe feasibility study.

Methods: Training emphasised pharmacists' skills and confidence in effective cross-cultural communication and relationship-building across three stages: (i) online and workshop-based, covering Indigenous history and health, cross-cultural communication and a holistic, strengths-based approach to IMeRSe delivery; (ii) orientation to the local Aboriginal health service, community and cultural protocols; (iii) ongoing cultural mentoring. The evaluation of the first stage is reported here. Participants completed self-administered questionnaires including a 22-item validated Cultural Capability Measurement Tool. Paired *t* tests measured change in mean scores of Likert scale data pre- and post-training.

Lessons learned: Thirty-nine pharmacists delivering IMeRSe completed training: 36 completed both questionnaires. The majority of pharmacists had never attended any cross-cultural training. All were non-Indigenous and fifteen were born overseas. Participants reported overall satisfaction with training; the majority perceived it added value to their practice. Improved cultural capability post-training was reflected in increased scores for 21/22 items; nine reaching statistical significance. There were significant improvements in scores for all 26 confidence and skills statements, and selected motivational and barrier statements; particularly participants role in improving Indigenous health outcomes and cross-cultural communication.

Implications: Positive changes in self-reported capability, skills and confidence suggest the training prepared pharmacists to deliver culturally responsive medication review services. This study supports cross-cultural training as an essential element in the implementation of culturally safe health services for Indigenous people.

Cultural determinants of health, wellbeing and safety for Aboriginal and Torres Strait Islander people: a narrative review of reviews

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Objectives

As the evidence for the importance of culture as a determinant of Aboriginal health grows, cultural determinants are being embedded into policies and programs at both a national and state level. Due to the novelty of the approach, potential indicators of cultural determinants being successfully implemented into programs are scarce. The objective of this review, was to determine current evidence about cultural determinants and health outcomes for Aboriginal people and the relationship between determinants, to inform the development of a state-wide evaluation framework.

Methods

Two databases were searched from inception to February 2019: Medline (Ovid) and Scopus. Search terms included previously identified cultural determinants of health and an Aboriginal definition of health. A narrative literature review was chosen due to the heterogeneity of included reviews making it not possible to conduct a quantitative systematic review or meta-analysis. However, a systematic approach to the search and inclusion of reviews was conducted.

Lessons Learned

Supporting previous research, cultural determinants of health positively impact the health and wellbeing outcomes of Aboriginal Australians. At an individual level, connection to cultural resources and connection to community-controlled organisations inform cultural identity. At a system-level, self-determination over cultural identity is integral to improving health outcomes. Culture in the literature was viewed as static rather than dynamic.

Implications

This review of reviews has informed cultural determinants indicators and measures of success that capture Aboriginal perspectives and ways of providing and self-determining health. These indicators have been embedded into a state-wide evaluation framework, improving the benefits of evaluation for Aboriginal people.

The development of a peer-support strategy that prepares Inuit for shared decision making with healthcare providers in cancer care systems: an integrated knowledge translation study

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Objective: Inuit are indigenous people living in northern Canada. They are resilient, have a strong, unique culture, and are self-reliant in activities of self-governance and decision making. Inuit face increased cancer risks. Shared decision making (SDM) improves peoples' participation and outcomes in health care. The overall objective was to enhance the participation of Inuit with their healthcare providers in their cancer care decisions by developing and field testing a peer-support strategy that prepares Inuit for SDM with healthcare providers.

Methods:

The team conducted an integrated KT study, led by a Steering Committee of Inuit community members and providers and used consensus-building methods to develop a strategy that prepares Inuit for SDM with healthcare providers, and trained five community support workers ("CSWs"- peer-healthcare providers) in the strategy and paired them with eight community members. We observed CSW-community member pairs use the strategy and interviewed them about their experiences.

Lessons learned:

We were able to co-create a peer-support strategy to prepare Inuit for SDM with their cancer healthcare providers: including 1) developing a 6-question booklet to guide discussion and prepare for SDM with a health care provider and 2) training CSWs to provide non-directive support to prepare to make decisions about cancer care. Interviews identified six themes that affirm the need, appropriateness and acceptance of the strategy structured by the booklet.

Implications:

A peer-support strategy may be used to prepare Inuit for SDM with healthcare providers in cancer care systems. Further work is underway to test the strategy.

The cost-effectiveness of molecular point of care testing for chlamydia and gonorrhoea in remote communities

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Objectives: A cluster-randomised controlled trial (called TTANGO) conducted in remote health services in Northern Australia between June 2013 and February 2016 found that the time-to-treatment was substantially reduced following implementation of point-of-care (POC) testing for chlamydia and gonorrhoea. The aim of our study was to calculate cost per woman tested/managed and establish if this model of care is cost-effective compared to standard care.

Methods: A decision-analytic Markov model was constructed to simulate the patient clinical pathway using POC tests in a remote health service, compared with standard care over a 10-year time horizon from the health system perspective. Outcome and cost data were obtained from the TTANGO trial and included costs of management of infection and sequelae, follow-up, internal and external quality control and training of staff. Quality adjusted life year (QALY) weights related to chlamydia and gonorrhoea infection and sequelae, and data relating to the risk of sequelae and costs of management were sourced from published literature.

Lessons learned: Preliminary results indicate the mean total cost per woman tested/managed over 10 years, was AUD 1,336 based on POC testing, compared with AUD 1,457 for standard care. The main drivers of reduced cost for POC testing in the model were less staff time required for follow-up and decreased incidence of pelvic inflammatory disease. The model also indicates that POC testing improves quality of life due to decreased incidence of pelvic inflammatory disease.

Implications: Findings from our modelling suggest that chlamydia and gonorrhoea testing and management among women in remote communities based on POC testing is cost effective. Further analyses will be conducted to integrate the public health benefits of POC testing e.g., prevention of onward transmission in the population due to more timely treatment.

Disclosure: None. No financial support was received by Cepheid. Cepheid has provided GeneXpert machines on loan for the duration of TTANGO.

Policy lessons from the experiences of Māori women with antenatal services in Tāmaki Makaurau

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Objectives

To explore the experiences of Māori women of antenatal care in Tāmaki Makaurau (Auckland) alongside the perspectives of health professionals involved in providing antenatal health care to Māori women.

Methods

This research was located within a Kaupapa Māori Research approach and prioritised Māori worldviews, values and experiences. It involved two phases of interviews with Māori women, one during their pregnancy and another after the birth of their baby. Ten interviews with midwives and obstetricians were conducted to explore their perspectives on antenatal services for Māori women within Tāmaki Makaurau.

Lessons learned

Antenatal services in Tāmaki Makaurau do not meet the needs of Māori women and their whanau and this contributes to disparities in outcomes for Māori women and their babies. Listening to the experiences of Māori women provides valuable insights into way that antenatal services and the wider health system could be improved to better meet the needs of Māori women and their whanau to improve health outcomes during pregnancy, birth and recovery.

Implications

The current disparities in outcomes for Māori women and their babies will only be addressed through policy changes that lead to antenatal services which provide assessable and culturally appropriate care for Māori women within the context of their whanau.

Improving systems for eliminating crusted scabies in Indigenous communities in the Northern Territory

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Objectives

Crusted scabies (CS) is a debilitating skin disease caused by an extreme infestation of *Sarcoptes Scabiei*, the same mite that causes scabies. In remote Aboriginal communities in the Northern Territory scabies is endemic. Complications can lead to kidney disease, rheumatic heart disease, sepsis and death. Despite effective treatments, benefits are rarely sustained. This study investigates a novel systems approach to eliminating crusted scabies by 2022.

Methods

A mixed method evaluation using a before and after design assessed 1) extent of uptake and program implementation including barriers and enablers 2) impacts on patient outcomes including numbers of new cases, recurrences; quality of primary health care services and hospital activity.

Lessons learned

Partnerships with Aboriginal community controlled health services and NT government facilitated widespread adoption among PHC and public hospitals. The program included vertical and horizontal strategies for embedding system changes including: auditing of PHC records to improve case detection; coordination and navigation to support treatment completion and scabies free households; education and support to increase knowledge, reduce stigma; care planning to improve follow-up. Audit data demonstrated improved treatment completion and increased follow-up in community. Trends in recurrences were positive - the majority of patients with an initial episode of CS did not have a recurrence during follow-up period.

Implications

Although there were marked improvements in hospital treatment, patients are returning to scabies endemic environments. In the context of overcrowding, the risk of re-infection is high suggesting elimination will be challenging. Aboriginal health workers and community action are central to prevention strategies.

First results of a mixed-design controlled before-after evaluation of five regional health information technology-based programs to improve health and social care coordination

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Objective

Information Technology (IT) might help coordinate health and social actors of patient pathways. Objectives of this mixed-design study were to assess five regional IT-based programs to improve coordination (“Territoires de soins numériques” TSN): 1) implementation and use; 2) impact on patient pathways; 3) impact on work organization; and 4) economic sustainability and efficiency.

Methods

Data collection covered three periods before, and during early and late implementation from 2012 to 2017, in five TSN and five comparison territories, and used five sources: French National Health Insurance databases; surveys of knowledge, use, satisfaction and understanding of TSN projects, pathway experience, and appropriateness of hospitalisations; document analyses; and extractions from TSN databases. Four main impact indicators were emergency room visits; unplanned hospitalisations; avoidable hospitalisations; and rehospitalisation within 30 days.

Lesson learned

TSN regions implemented heterogeneous mixes of services targeted to professionals or patients, with contrasted strategies, interoperability with existing tools, integration of existing networks, and budget structure. Implementation was slower than expected and did not document well the size and characteristics of targeted populations. Qualitatively, there were perceived positive changes in links between professionals and response delays for complex medical or social situations. At the end of the experimentation, there were no significant differences in trends of the main impact indicators, nor on appropriateness of hospitalisations, but favorable trends on secondary poly-medication indicators. Generalisation of TSN could be associated with gains around 200.000€/y.

Implications

Results suggest that TSN might be effective and efficient, but delayed implementation implies to extend the observation period.

Talking Health – assessing clinician communication with consumers using telephone triage and advice services

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Objective

Consumer willingness and capacity to follow clinician advice is a complex feature of healthcare interactions. Health literacy is an important determinant of a consumer's ability to respond effectively to health advice. Low health literacy may result in health inequities. The quality of clinician-patient communication may facilitate health literacy and influence the extent to which a consumer adheres to health advice. This study aimed to determine the communication quality of a national primary care telephone helpline.

Methods

The review method involved repeated presentation of five clinically-validated scenarios by trained simulated patients, making 250 calls to the helpline in total. Digital call recordings were assessed by expert independent assessors using a detailed communication assessment instrument focused on four domains of clinician-patient communication: client-centredness, active listening, clarity of language and clarity of advice.

Lesson learned

Across 16 sub-elements of communication, expert assessors identified three areas in which the communication of helpline nurses could be strengthened: use of the caller's name, as part of client-centredness; confirmation of the nurse's understanding of the caller's problem, as part of active listening; and confirmation of the caller's understanding of nurse advice and recommended action, as part of clarity of advice. However, provision of information by the caller was encouraged and nurses mainly spoke clearly and in plain language. Safety net advice was consistently delivered to callers.

Implications

Implementation of the interactive communication strategy "teach back" on a primary care telephone helpline could support improvements in consumer health literacy, encourage callers to follow the health advice received and potentially address health inequities.

Digital Health Enabled Targeted Patient Communication Facilitated Through Healthcare Providers in the Recovery of Fragility Fractures: Meta-Analysis and Comprehensive Systematic Review

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Objective: The objective of this review is to evaluate the effectiveness of digital health enabled patient communication, versus usual provision of health information, on the recovery in older adults with fragility fractures.

Introduction: With the advancement of digital health which includes modern information and communications technologies, it is possible to integrate seamlessly the provision of different services for older people with fragility fracture from acute hospital care to community rehabilitation and management and thus, reducing cost to the system and patient.

Inclusion criteria: The review considered studies conducted in a hospital, residential aged care or community dwellings and included older people, aged 50 and above with a diagnosis of fragility or osteoporotic fracture. Studies evaluated digital health enabled patient communication and education solutions delivered through any digital device in the form of voice call/messaging, text messaging, educational videos, or multimedia platforms and compared with usual care. The primary outcome included prevention of secondary fractures, diagnosis and treatment of osteoporosis and its adherence, or any functional outcomes (e.g. mobility). Secondary outcomes included quality of life, health/ehealth literacy, knowledge, or perceived service satisfaction.

Methods: This review considered both experimental and quasi-experimental study designs including randomized controlled trials, non-randomized controlled trials, before and after studies. A comprehensive search strategy was built to identify key terms including MeSH and applied to the databases including PUBMED, CINAHL, SCOPUS, and Google Scholar. Appropriate critical appraisal tools were used to determine the methodological quality of studies included in the review. An intention to treat analysis was applied to those studies included in meta-analysis and odds ratio was calculated with random effects and I^2 statistic for determining heterogeneity. Findings from rest of the studies were narratively interpreted.

Results: Altogether, 15 studies were considered in the final stage for this systematic review. Out of these, 10 studies were randomized controlled trials and 5 were quasi experimental studies, including three studies with no comparison group. Overall methodological quality varied according to the type of studies. Within RCT group, 2 studies reported to be of high quality, scored as 85%. The included studies were published between the years 2003 to 2016. A total of 5037 participants with fragility fractures were recruited through these studies including 8 studies with only hip fractures as criteria for inclusion and 4 studies exclusively as women participants. There was variation across intervention with use of digital health technological solutions. Five randomized controlled trials were included for meta-analysis covering 2873 participants. The outcomes were prevention of secondary fractures, measured as a proxy through bone mineral density test and adherence to osteoporosis medication at 6 months after discharge from the acute care. Findings from this meta-analysis suggest the intervention to be twice as effective when compared with the usual standard care (OR 2.13, 95% CI 1.30-3.48) and statistically significant ($z=3.01$, $p=0.003$), though the population sample considered in these studies were not homogeneous ($I^2=79$, $p=0.005$). Narrative synthesis of the remaining studies included in this systematic review suggest improvement in secondary outcomes

Conclusions: Findings from this review suggests that patient communication and education is critical in the recovery of fragility fractures and digital health technology based solutions can be used to educate patients on different aspects of care including physical activity and exercises, diet and nutrition, management of pain and discomfort. However, all these could work together if the

appropriate technological solution works on the principle of motivation and reinforcement of messages and enable a comfortable environment through facilitation by primary care setting and carers support.

Keywords: digital health, telemedicine, patient communication and education, fragility fractures, meta-analysis, systematic review.

15 years of telepaediatrics: data discoveries and service successes

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Objectives

To summarise patterns of activity within the Queensland Telepaediatric Service (QTS), since its establishment in November 2000.

Methods

A retrospective review of QTS activity was reported over a 15 year period from November 2000 to March 2016. Data on service activity was obtained from an operational database which was owned and maintained by the Centre for Online Health. This database contained information about consultation speciality, duration, location and modality.

Lessons Learned

Telehealth can be used to improve access to healthcare for people living in remote locations. A long-term effort was required to address the challenges for service implementation and uptake. Using QTS data, specific service models were outlined, and key enablers and challenges associated with the service were described. From Nov-2000 to March-2016, 23,054 consultations were coordinated through the QTS. 95% of consultations involved videoconference. Most referrals were from a regional hospital; the top referral site was Mackay (20%). Over time, it was encouraging to see 37 clinical services involved in the QTS. The partnership between the service provider and the university provided a unique opportunity to leverage research funding and drive innovation within the service.

Implications

The QTS has laid the foundations for the provision of telepaediatric services in Queensland. Many of these service models have been replicated in different locations throughout Australia. Monitoring service growth over time has identified the changes in practice which influenced service uptake. Sustained enthusiasm for telepaediatrics has been generated, paving the way for future reviews to demonstrate the benefits of telehealth services.

The value, strengths and weaknesses of telehealth

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Objective

Telehealth services are often delivered as a pilot project and while evaluation generally finds equivalent clinical outcomes with traditional in-person services, the service models often fail to sustain and scale

NGO Royal Far West (RFW) uses telehealth to increase access to services for children in rural Australia where there is a shortage of paediatric specialists and allied health clinicians. RFW is scaling their specialist and allied paediatric Telecare model.

The University of Sydney and RFW have collaborated on an NHMRC funded project on the RFW Telecare Program. The study aims to investigate the role of the Telecare Coordinator, access to care, as well as investigate satisfaction, up-take, costs and the organisational aspects of scaling and sustaining a telehealth service for rural children.

Methods

The study uses mixed methods including qualitative interviews, ethnographic observations, policy and cost analyses.

Lessons Learned

Preliminary findings indicate that the role of the 'Telecare Coordinator' is essential to successfully implementing, sustaining and taking Telecare to scale especially where telehealth has the aim to improve equity of access. Other findings regarding sustaining and scaling will be presented.

Further, parents and carers report significant transactional cost savings through the use of Telecare, but this value is not consistently captured and this reduces the uptake of telehealth on both demand and supply sides.

Implications

Consideration of these factors by policy makers and researchers in funding models and decision making may be key to the sustainability and scale-up of telehealth in Australia.

Factors affecting 30-day unplanned readmissions for patients undergoing total hip arthroplasty

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Objective

This study aimed to determine associations between total hip arthroplasty patients' experiences in hospital and in transition to home, and unplanned 30-day readmissions.

Methods

Consecutive patients attending a consultation at six weeks following total hip arthroplasty at four public and private clinics in the Australian Capital Territory from 1 February 2018 to 31 January 2019 were invited to complete the *ACT Transition from Hospital to Home Orthopaedic Survey*. Univariate and multiple regression analyses were used to estimate odds ratios of factors associated with 30-day unplanned readmissions.

Lessons Learned

Of the 431 patients that completed the survey 27 (7%) were readmitted within 30-days of discharge (77% response rate). Public patients comprised 27% (n = 116) while 73% (n = 315) were private patients. After controlling for age and gender, patients who did not feel rested on discharge were significantly more likely to be readmitted within 30-days than those who felt rested upon discharge (OR= 5.75, 95% CI: [2.13, 15.55], $p=0.001$). Compared to patients who did not have peripheral vascular disease (PVD), those who suffered from PVD were significantly more likely to have an unplanned 30-day readmission (OR=16.9, 95% CI: [3.06, 93.53], $p=0.001$).

Implications

These results provide incentive for hospitals to develop strategies that maximise rest and sleep during patients' hospital stay. To minimise the odds of an unplanned readmission in patients with comorbidities, optimum treatment of PVD prior to total hip arthroplasty should also be a priority.

A Deep Representation of Longitudinal EMR Data Used for Predicting Readmission to the ICU and Describing Patients-at-Risk

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Objective

Although deep learning models achieve high predictive accuracy, their use in clinical decision-support requires understanding of the factors that are driving prediction. We used attention-based neural networks to predict the risk of readmission within 30 days of discharge from the intensive care unit (ICU) based on longitudinal electronic medical record (EMR) data and to describe patients-at-risk.

Methods

A “time-aware attention” model was trained using publicly available EMR data (MIMIC-III) associated with 45,298 ICU stays for 33,150 patients. Bayesian inference was used to compute the posterior distribution of network weights. Prediction accuracy was evaluated based on average precision, AUROC, and F₁-Score. Odds ratios (ORs) associated with increased risk of readmission were computed for demographic variables. Diagnoses, procedures, and medications were ranked according to associated risk of readmission.

Lessons Learned

A Bayesian ensemble of time-aware attention models was associated with the highest predictive accuracy (average precision: 0.282, AUROC: 0.738, F₁-Score: 0.353). Gender, number of recent admissions, age, admission location, insurance, and ethnicity were associated with risk of readmission. Longer ICU stays were found to reduce the risk of readmission (OR: 0.91, 95% credible interval: 0.90-0.92). Patients at risk included those requiring cardiovascular or ventilatory support, with poor nutritional state, and for whom standard medical care was contraindicated.

Implications

The attention-based deep learning model achieved high predictive accuracy while also delivering insights into the patient population at increased risk of readmission. Ultimately, interpretable machine learning techniques such as proposed here are necessary to allow the integration of predictive models in clinical processes.

Improving hypertension control in Australia

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Objective

Hypertension, affecting 6 million Australians, is the largest contributor to cardiovascular morbidity and mortality. In addition to lifestyle adjustments, effective anti-hypertensive therapy is available to manage hypertension, but adherence to such medications has been identified as an ongoing problem. The objective of this mixed methods study is to inform the design of cost-effective interventions for improving adherence to anti-hypertensive therapy.

Methods

Methods include: 1) cross-sectional analysis of data from the National Prescribing Service MedicineInsight database, containing de-identified electronic medical records of patients attending general practices across Australia; 2) development of a costing model to estimate the cost of uncontrolled hypertension, the effects of improving medication adherence, and populations in which interventions would be cost-effective; and 3) a scoping review of interventions using behavioural economic concepts to improve medication adherence in patients with chronic conditions.

Lessons Learned

The review highlighted the importance of targeting non-adherent patients, understanding their reasons for non-adherence, providing reminders and feedback to patients and physicians. The database analysis identified hypertension prevalence of 29% in patients attending general practice, of which 49% were uncontrolled. Uncontrolled hypertension was more frequent in those prescribed four or more classes of drugs. The cost analysis demonstrated important health benefits and cost savings associated with improved adherence, supporting the potential value of targeted efforts to improve adherence.

Implications

Cardiovascular disease places a significant burden on the Australian health system. Finding cost-effectiveness interventions, targeted at populations at risk of uncontrolled hypertension, has the potential of reducing costs and improving the lives of Australians.

Revolving doors: Understanding factors affecting 30-day unplanned readmissions for patients undergoing Total Knee Arthroplasty.

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⁶Health Care Consumers Association Australian Capital Territory

Objectives

The aim of this study was to examine associations between total knee arthroplasty patients' experiences in hospital and in transition to home, and unplanned 30-day readmissions.

Methods

A cross-section of public and private patients in four clinical services in the Australian Capital Territory was invited to complete the *ACT Transition from Hospital to Home Orthopedics Survey* between 1 February 2018 and 31 January 2019. Multiple logistic regression analysis was used to estimate the odds ratio for risk of 30-day readmission following total knee arthroplasty.

Lessons Learned

Of the total patients discharged following total knee arthroplasty (n=380, 77% response rate), 4% were readmitted within 30-days of discharge. Public patients comprised 35% (n = 133) while 65% (n = 247) were private patients. After controlling for age and sex, patients who were admitted to public hospitals were significantly more likely to be readmitted within 30-days than those who were operated on in private hospitals (OR=6.87, 95% CI:1.71-27.54, $p=0.007$). Compared with patients who did not attend rehabilitation, patients who attended were significantly less likely to be readmitted within 30-days of discharge (OR=0.17, 95%CI: 0.05-0.59, $p=0.006$).

Implications

The discrepancy between outcomes for public versus private patients provides impetus to develop strategies to provide more equitable waiting times for these groups, in particular reduced waiting times for public patients. The potential for longer periods of rehabilitation to reduce unplanned readmissions requires healthcare professionals to encourage patients to attend, informing them of benefits, and ensuring same access to services for both public and private patients.

Trends in Rates and Inequalities in Paediatric Admissions for Ambulatory Care Sensitive Conditions in Victoria, Australia (2003 to 2013)

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Objectives: To examine 10-year trends and inequalities in paediatric admission rates for acute and chronic Ambulatory Care Sensitive Conditions (ACSCs) in Victoria.

Methods: Secondary data analysis of the Victorian Admitted Episodes Dataset. Participants were children aged 0-17 years admitted with a principal diagnosis of acute ACSCs: dehydration and gastroenteritis, dental conditions, and urinary tract infections (UTIs) or chronic ACSCs: asthma and diabetic ketoacidosis, from 2003/04 – 2012/13. Main outcome measures were trends in paediatric hospital admission rates for ACSCs (per 1,000 population) stratified by Index of Relative Socioeconomic Disadvantage (IRSD) ratio, IRSD quintiles, age group, Accessibility/Remoteness Index (ARIA) and health insurance status.

Lessons learned: Over the 10 years, hospital admissions rates for ACSC were higher for asthma, dental conditions and gastroenteritis/dehydration compared to UTIs and diabetic ketoacidosis. Inequalities in paediatric admissions exist for both acute and chronic conditions and have not changed from 2003/04 to 2012/13, with more disadvantaged Victorian children more likely to be admitted to hospital at each time point. Dental admissions were the only ACSC associated with increased rates of admissions by increasing rurality (ARIA).

Implications: Primary care should be a critical platform to effectively prevent avoidable hospital admissions in children, with more equitable access likely needed to primary and secondary care. Children in rural areas need greater access to preventive dental care. Understanding and addressing social determinants of health that might drive in inequity in admissions, could further reduce avoidable admissions in children.

Health Insurance Coverage and Associated Factors among Women in Ethiopia: A Secondary Analysis of Ethiopia Demographic and Health Survey Data 2016

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Background: Out-of-pocket expenditure is the main form of health financing in Ethiopia. Due to direct payments at the point of care, a large number of households are exposed to catastrophic health expenditure. Health insurance is considered as one of the mechanisms to avoid financial hardships due to health care costs and to progress towards universal health coverage (UHC) goals. This study aimed to assess the prevalence and determinants of health insurance coverage among women in Ethiopia.

Methods: This study was based on analysis of Ethiopia demographic health survey (EDHS) data 2016. A total of 15,683 women between 15-49 years of age participated in this survey. Descriptive statistics were used to describe characteristics of the study participants. Bivariate and multivariable logistic regression models were used to identify factors associated with health insurance coverage.

Findings: The proportion of women enrolled in health insurance schemes was 5.3%. Older age (>35 and above), engagement in agriculture and being a skilled and professional employee, having higher household wealth index, living in Tigray and the Amhara Regional States favorably affected coverage with health insurance schemes. On the other hand, women who reported lack of money for treatment and those who reside in Oromia, Southern Nations Nationalities Peoples Regions (SNNPR), and Developing Regions were less likely to be covered by health insurance.

Conclusion: Health insurance coverage among women in Ethiopia is low. The inequality observed based on poor socio-economic status and the disparity among residents of regional states in the country implies that reaching the UHC goal in Ethiopia is far more complicated than it appears. We recommend targeting of less advantaged communities to address the low coverage and inequality observed in our study.

Keywords: Health insurance, Universal health coverage, socio-economic status, Women, Ethiopia

From Head to Heart- listening to Manitoba healthcare leaders' experiences of structural barriers with meaningful engagement of Canada's Truth and Reconciliation Commission's calls to action

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Objectives

This Thesis explores the present-day effects of colonialism influencing healthcare leaders in Manitoba, Canada. There are two research objectives: 1) To gather health leaders and listen to their stories of promoting reconciliation, decolonization or Indigenous self-determination within health service delivery; 2) To use Medicine Wheel teachings to extend our understanding of these stories.

Methods

In the fall 2019, we are gathering 5-8 health leaders to share their stories of promoting Indigenous self-determination and reconciliatory practices while working from within the colonial structure of current health systems. After initial one-on-one interviews are completed, these storytellers will be invited to participate in a sharing circle ceremony, aimed to address all aspects of the individual's story - heart, mind, body and spirit.

Lessons Learned

Guided by Elder Wilson, and drawing on the teachings of M'psiun (Medicine Wheel), imbalances of the four doorways and potential medicines to help regain balance within each of the storytellers' experiences will be summarized and shared.

Implications

Canada's Truth and Reconciliation Commission's Calls to Action have the potential to lead to the collective healing of our country. There is still a limited understanding of best practices of their implementation and the effect on those supporting those practices. Through this work, we can explore what medicines may prove useful for health leaders to move forward and walk in balance while doing this work. By capturing their experiences, we are able to better understand what is currently working well and what needs to be re-evaluated, re-worked and repaired, in order to truly begin to reconcile.

Yes Wee Can: saving time and money with improved urine sample collection for young pre-continent children

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Context

Urinary Tract Infections (UTI) are one of the commonest bacterial infections of childhood. Signs of UTI in young children are non-specific, so urine samples are required for diagnosis or exclusion. Collecting urine is common practice for many febrile children presenting for medical care.

But collecting urine from a young pre-continent child is challenging. Existing collection methods all have limitations. The most cost-effective method is not known. Suboptimal sample collection is detrimental to patient care and health service efficiency. Guideline recommendations are conflicting.

Evidence and innovation for this area of paediatric practice is lacking. This mixed-methods doctoral student thesis defined challenges, provided practical solutions, and examined cost-effectiveness.

Objectives

1. Develop and test an improved, low-cost non-invasive urine collection method
2. Describe the cost-effectiveness of current and new urine collection methods
3. Understand barriers and enablers to best practice in the primary care setting

Methods

1. Quick-Wee: Randomised Controlled Trial of a novel voiding stimulation method
2. Liquid Gold: Health Economic Analysis of urine collection methods
3. What's The Catch: Qualitative Study in general practice

Lessons Learned

The novel Quick-Wee method improves and expedites non-invasive urine sample collection for young children. The method is simple, gentle and can be used in any clinical setting.

The cost-effectiveness of each collection method is defined for the first time, informing practice and policy, with cost savings from the novel Quick-Wee method.

Unique primary care data is provided, informing guideline recommendations.

Implications

Findings have been incorporated into clinical guidelines. Research translation is ongoing.

Improving patient experience and delivery of scalp cooling treatment in ambulatory cancer care settings in Australia

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Objective

Chemotherapy-induced alopecia (CIA) is one of the most distressing side effects of cancer treatment. Across Australia, a number of cancer centres have implemented scalp cooling treatment to reduce CIA in cancer patients. Treatment users are predominately women with breast cancer. Limited evidence is available to inform health service providers as to how best this technology can be used to improve patient experience while not impacting the existing clinical workflow in cancer settings. This study aims to explore cancer patients' experience of receiving scalp cooling treatment to reduce CIA, and the impact of scalp cooling treatment on public and private ambulatory cancer care settings.

Methods

We used a multi-method evaluation design. Semi-structured interviews were conducted with breast cancer patients at two hospital sites in Australia (both public and private sectors). Observations of oncology ambulatory settings and brief interviews with nursing staff (clinical staff and nurse unit managers) were also undertaken to explore the impact of scalp cooling treatment on cancer settings.

Lessons Learned

The impact of scalp cooling treatment on breast cancer patients, chemotherapy scheduling, treatment time, workflow, and nursing care time, and other themes emerging from data analysis will be presented.

Implications

The findings from this study will lead to a better understanding of patients' experience during scalp cooling treatment and the introduction of a new technology in a busy clinical environment. The findings will inform policy makers and key stakeholders to implement scalp cooling treatment with a recognition of the potential impact on clinical workflow and patient experience.

Addressing the intentional blank space: medicines reviews for Māori older adults

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Objective

Medicines optimisation services have been shown to improve the appropriate use of polypharmacy in older adults. Research has shown that Māori, in comparison to non-Māori, are more likely to experience drug related problems, less likely to be given information about their medicines, and less likely to be recruited into mainstream pilot medicine review services. My doctoral work aims develop a pharmacist-facilitated medicines review service for Māori older adults.

Methods

This research is undertaken within a kaupapa Māori methodological framework. The development of a service model has been informed by a systematic review and narrative interviewing with Māori older adults, health professionals and health service funding and planning stakeholders in Waitematā District Health Board was undertaken. Interviews were analysed using reflexive thematic analysis. A service model was developed that is to be tested in a feasibility study.

Lessons Learnt

There is a paucity of published information relating to pharmacist-facilitated medicines review services for Māori older adults. Services that are available are not designed to address inequities in Māori health outcomes. Māori older adults want to be able to exert control over their medicines treatment to support wellbeing. Interview participants identify the need for pharmacy and medicine-related services to respond better to the identified needs of Māori and that pharmacists have the potential to meet this need.

Implications

Pharmacist services, designed to be responsive to the needs of Māori older adults have the potential to improve medicines related health outcomes and contribute to achieving health equity.

Helping emergency department registered nurses manage and minimise burnout

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Objectives

This study explored burnout in two groups of Registered Nurses working at Middlemore Hospital's ED, Associate Charge Nurse Managers and Registered Nurses. Lying at the heart of this research is the identification of coping and preventive mechanisms that participants believe management should implement in order to manage and minimise burnout rates.

Methods

Data were collected via the Professional Quality of Life Scale v.5 (n=83) and focus groups (n=11).

Lessons Learned

This research provides clear evidence that Middlemore Hospital's ED Registered Nurses and Associate Charge Nurse Managers are experiencing burnout, secondary traumatic stress and compassion fatigue. Participants identified coping and preventive mechanisms they believe management needs to implement to more effectively manage and minimise burnout. While utilising coping mechanisms, some participants are at a point where these mechanisms are ineffective; they need further support. This research identifies implications of nurse burnout for Registered Nurses, Associate Charge Nurse Managers and the organisation, and the need to enhance knowledge and education around nurse burnout.

Implications

The implications for ED nurses are to be able to identify nurse burnout and be able to openly discuss this issue with fellow nurses. Implementing these positive mechanisms also demonstrates a willingness on the part of the organisation to receive feedback, consider it and act upon it which is fundamental to creating a better workplace culture. There is a measurable, pressing need to implement change in order to prevent and manage nurse burnout, and thus improve nurse, patient and organisation wellness as a whole.

“You’ve gotta do what you’ve gotta do”: Prostate cancer patients’ perspectives on image guidance in radiotherapy

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Objectives

Information regarding patient preferences and perceptions of image guidance procedures in prostate cancer radiotherapy is limited. This study explored experiences and preferences of patients undergoing both fiducial marker (FM) insertion and Clarity ultrasound (US) procedures.

Methods

A concurrent triangulation mixed method approach was used. A survey ranked experiences from 0 to 10 (worst) in the domains of: invasiveness; pain; physical discomfort; and psychological discomfort. Responses were analysed with descriptive and inferential statistics. Semi-structured interviews of purposively selected participants obtained further insights into their perspectives and preferences based on survey responses and were thematically analysed.

Lessons Learned

Perceptions of invasiveness varied with 46% reporting FMs more invasive than US and 49% the same for the two procedures. The mean score for FM was 3.6 and 2.1 for US. Mean scores for pain, physical and psychological discomfort were higher for FMs with 3.3, 3.2, 2.9 respectively and 1.1, 1.2, 1.7 respectively for US. Psychological and invasiveness domains were significantly different ($p < 0.05$). There were three major themes from the qualitative interviews: Expectations versus Experience; Preferences linked to Priorities; and Motivations (including acceptance, resolve or resignation) The sentiment “you’ve gotta do what you’ve gotta do” to treat the cancer was overwhelming. Eleven (50%) preferred US, however 10 (45%) could not illicit a preference.

Implications

To further explore men’s preferences, a discrete choice experiment is being developed. Insights into patient experiences and preferences is an important contribution to the health technology assessment of the Clarity ultrasound system.

Physiotherapy service delivery for spinal pain: A retrospective chart review in a public hospital outpatient service in New South Wales, Australia

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Objective

Spinal pain is a leading healthcare burden in Australia. This study aimed to describe current processes of physiotherapy care in a public hospital outpatient service, to identify barriers and enablers to best practice care for spinal pain.

Methods

A retrospective chart review was conducted in a public hospital in metropolitan New South Wales, Australia. Data were sourced from clinical records of adults referred and managed for spinal pain within a six-month period (March 1, 2017 – August 31, 2017). Trained researchers screened 307 clinical records. Researchers extracted and coded data on physiotherapy care processes (eg, assessment and intervention) over a 12-month period from the time of each patient's referral using a standardised form.

Lessons Learned

Approximately 3 of 4 records comprised patients with lower back pain and chronic pain. Some physiotherapy care processes aligned with best practice. For example, active interventions were almost universally provided, and physical examination was carried out and therapy goals were reported in >50% of records. However, other processes could be streamlined. For example, screening for serious pathology (red flags) was informally conducted in >80% of records, while screening for psychosocial prognostic factors (yellow flags) was not recorded in >90% of records. Further, only about 1 in 4 records reported the provision of first-line care.

Implications

Findings support the need to redesign physiotherapy services for spinal pain. Use of clinical pathways that include robust screening and risk stratification, routine outcome assessment, and evidence-based interventions could facilitate the integration of best practice care in routine service delivery.

Policy making in decentralized health systems – analysis of the delivery of non-communicable diseases prevention and care in Nigeria

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Objective: To generate evidence on the extent to which formulation of non-communicable diseases (NCD) policies align with the decentralised governance and delivery of health care in Nigeria, with a focus on sub-national implementation of Primary Health Care (PHC).

Methods: We reviewed NCDs policy documents from 2009 – 2019 – identified online and by contacting relevant government institutions for documents not accessible online. Microsoft excel spreadsheet was used to extract data of relevant variables mapped against six health system building blocks: 1. governance, 2. financing, 3. human resources, 4. information systems, 5. essential medicines, and 6. service delivery.

Lessons learned: The NCD policies were typically formulated at the national level, with minimal involvement of the states and local (district) level of health governance. Of the health system building blocks, governance was the most addressed, while financing and essential medicines were the least addressed. Notably, most policies lack accountability features to ensure effective sub-national implementation at the PHC level.

Implications: In Nigeria, the health system is decentralised along three tiers of government (national, state and local). Sub-national governments deliver PHC services. With a high level of autonomy, including on how health system resources are allocated and used, failure to design policies with consideration for decentralization has consistently led to weak sub-national implementation, especially at the PHC level – and this situation applies to NCD policy implementation and NCD service delivery. We recommend that national policy formulation should include features that will facilitate sub-national implementation, and comprehensively address all the health system building blocks.

Has the clinical governance agenda stalled? Findings from the 2017 New Zealand survey of DHB health professional staff

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Objectives

In the late-2000s, New Zealand saw introduction of a national policy that all 20 government-funded District Health Boards (DHBs) work to establish and support clinical governance and leadership. We developed and conducted a survey designed to assess progress with implementation of clinical governance, initially of senior medical staff in 2010. In 2012 and 2017, the full health professional workforce were surveyed. This has enabled progress with development to be assessed and for comparison of DHBs and workforce groups. This presentation compares the 2017 findings with those from 2012.

Methods

All registered health professionals employed by DHBs were invited to participate in a brief online survey, with questions designed to gauge implementation of government policy. Survey invites were sent directly to professionals by their respective DHB with a link to the survey website. The website and data analysis were managed by the researchers.

Lessons Learned

Progress between 2012 and 2017 was limited; in many cases, respondents were less positive in 2017 than they were in 2012. This may be due to a stronger focus in 2012 – nationally and across the DHB sector – on clinical governance development.

Implications

The 2017 findings have implications for health sector policy, governance and management as well as for health professionals. In particular, there may be a need to refresh the emphasis on clinical governance and aspects of the quality and safety environment nationally and within DHBs.

Knowledge and performance inequities: How unresolved nurse short-staffing and the eclipsing of nurses' knowledge undermines the everyday performance of patient safety

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Objectives

The objective of this research was to ascertain why nurse safe staffing strategies, including the Care Capacity Demand Management Programme, CCDM, have yet to deliver widespread, consistent and material solutions that address nurses' concerns about patient safety. The intention of the study was to investigate and explain how these staffing strategies have been taken up and are operated in New Zealand hospitals, as well as how concerns for patient safety and short-staffed shifts persist as a feature of frontline nurses' everyday work.

Methods

The study employed a critical qualitative method of inquiry called institutional ethnography. Using this technique, I have charted a detailed description and analysis of how aspects of the nurse safe staffing strategies *actually work* in everyday hospital settings. In addition, how the strategies and the environments in which they are implemented construct what happens in the everyday work of frontline nurses has been revealed.

Lessons learned

Threats to patient safety on short-staffed shifts in NZ hospitals persist because nurses' situated intelligence is not the basis for patient safety and staffing decision-making and because hospital milieus are characterised by pervasive competing institutional imperatives.

Implications

Every hospital in NZ is required to implement CCDM by 2021. Despite the robust evidence base for the design and significant investment in nurse safe staffing to date, this research has identified how and why the current strategies have not and cannot fully resolve threats to patient safety and short-staffing in NZ hospitals. This has critical implications for all invested stakeholders.

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Use of teach-back improves health outcomes but what do we know about its implementation? A systematic review.

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Objective

Teach-back is a health literacy-based communication approach shown to improve health outcomes. Despite widespread recommendations for its use, teach-back is not consistently used. In part, this may be due to little guidance for its implementation. This systematic review aims to synthesise the latest evidence about teach-back implementation to inform healthcare services about key strategies to optimise its routine uptake and sustainability.

Methods

Electronic databases, reference lists and grey literature were searched using terms such as: “Teach-back”, or “Ask-tell-ask”. Quantitative study designs only were included. Studies that implemented teach-back in combination with other educational strategies were excluded. Teach-back had to be delivered by healthcare professionals in a healthcare setting. Data extraction and quality assessment were undertaken by reviewers.

Lessons Learned

Twenty-one of 175 full-text articles were included of varying study design and quality. There was little consistency in relation to study population and outcomes. Nineteen studies (90.5%) reported positive findings for primary outcome measures, including disease knowledge, self-care practices, and hospital readmission. Eight studies did not report any implementation strategies and implementation was poorly reported in the remaining 13 studies. Education and support for clinicians were the most common implementation strategies including comprehensive training, reminder prompts and ‘teach-back champions’. Sustainability was not addressed and most outcomes were short-term only.

Implications

Further evidence is required to support use of teach-back. This can be achieved through a large randomised controlled trial using implementation science frameworks to identify factors that enable uptake and sustainability of this important approach to improving health communication.

Trade-offs of adjuvant immunotherapy in stage-III melanoma – a clinicians' view?

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Objective

Adjuvant anti-PD-1 immunotherapy for resected stage-III melanoma patients improves disease-free survival, however is costly and incurs toxicity. Little is known about clinicians' treatment preferences in the adjuvant setting, or the factors clinicians consider important for patients making adjuvant immunotherapy decisions for stage-III melanoma.

Methods

Purposive sampling was used to complete semi-structured interviews with clinicians from 3 metropolitan hospitals in Victoria and NSW. Interviews focused on clinicians' perceptions of important factors for patient choice for adjuvant immunotherapy. Thematic analysis was used to analyse data.

Lessons learned

Four of 15 clinician interviews have been completed; in interim analysis three themes emerged as important in patient choice regarding adjuvant immunotherapy treatment. The first theme, 'treatment harms', included treatment toxicities, especially if life threatening or requiring life-long medication. Toxicities discussed included colitis, pneumonitis, diabetes, fatigue, and endocrinopathies. Harms also included psychological factors, such as a lack of social support, fear of cancer recurrence and anxiety. A second theme was 'treatment benefits', this included reducing the risk of melanoma recurrence and death. Additionally health inequity considerations such as patient location (rural/remote or metropolitan) and age were secondary to clinical indicators for treatment.

Implications

Results will assist healthcare professional discussions with patients and their families about adjuvant immunotherapy choices to treat stage-III melanoma. Future research will explore patient and carer preferences and inequities for adjuvant immunotherapy decisions, informing the design of a choice survey to elicit treatment preferences, and understand the trade-offs patients are willing to accept to achieve treatment benefits.

Comparing clinical supervision models as a vehicle for behaviour change in health services

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Objective

Clinical supervision is routinely provided to allied health professionals in Australian health services, but models of supervision can be either direct (involving direct observation of clinical practice) or reflective (discussion occurring away from the patient). This project aimed to determine whether direct supervision is effective in changing clinician behaviour, to improve compliance with clinical guidelines.

Method

A before-and-after study design, with a comparison site, was conducted on acute orthopaedic hospital wards. Physiotherapists at one site received direct supervision, involving observation and feedback from an experienced physiotherapist. Those at the control site continued to receive standard reflective supervision. The primary outcome was compliance with the hip fracture mobilisation guidelines following surgery. Secondary patient outcomes included physical function during admission. Data were collected from 290 patients with hip fracture over the four-month intervention period.

Lessons Learned

Direct clinical supervision of physiotherapists improved compliance with clinical guidelines with increased odd of patients mobilising on the day after surgery (OR 3.14, 95% confidence interval (CI) 1.41 to 7.01; $P=0.005$) and by the second post-operative day (OR 4.62, 95% CI 2.31 to 9.23; $P<0.001$). Patients walked further on the fifth post-operative day ($P<0.001$) with less assistance from therapists ($P=0.044$).

Implications

Direct supervision of physiotherapists led to positive behaviour change of physiotherapists resulting in improved compliance with clinical practice guidelines and functioning of patients with hip fracture. Direct supervision appears to be an effective guideline implementation strategy and may have similar effects in other clinical settings and health professions.

Developing the multi-professional clinical academic workforce in Australia and New Zealand: a scoping review

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Objectives

In Australia and New Zealand (ANZ), clinical academics are an important part of the workforce needed to deliver social and economic returns from health and medical research investment. This review aims to examine the extent and nature of the evidence addressing the development of the multi-professional clinical academic workforce in ANZ and to synthesise policy-relevant findings.

Methods

The review adopts a scoping review design. Searches were undertaken in Medline (Ovid), Scopus, and CINAHL, with reference lists and websites searched for additional literature. Papers eligible for inclusion were those published in English in 2000–2018 that reported results of empirical studies focussed on developing the research functions of the clinical workforce. Results were reported narratively using a labour market policy framework.

Lessons Learned

A total of 43 studies representing a diverse range of health professions and study designs were included; two represented the New Zealand context. Clinical academic workforce development was framed as a policy strategy to improve productivity and performance of the broader health workforce. Findings relevant to maldistribution suggest that production and retention policies should target populations and geographies where research-capable clinicians are most likely to be needed.

Implications

The review findings offer evidence-based policy recommendations on how to invest in, and provide an enabling environment for, research engagement and skills development of interested or already research-active clinicians. Lessons from rural and primary health care research capacity building programs in Australia could help to inform policy aimed at New Zealand, Maori and Pacific Island health workforce development.

Private choices, public costs. Evaluating cost-shifting between private and public health sectors in New Zealand

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Objectives

To evaluate whether cost-shifting between the private and public hospital systems is a significant issue in New Zealand, by examining how frequently private patients are admitted to public inpatient facilities following a privately-funded inpatient event, the characteristics of those patients and the costs imposed on the public sector as a result.

Methods

Routinely collected inpatient discharge data from 2013/14 were used to identify private events with a subsequent admission to a public facility within seven days of discharge. We examined the frequency of subsequent public admission, the demographic and clinical characteristics of the patients and estimated the direct costs of inpatient care incurred by the public health system. Multivariable regression analyses were used to evaluate whether there were significant differences between demographic groups in the odds of a subsequent public admission and costs to the public sector.

Lessons Learned

Preliminary analyses suggest that approximately 2% of private inpatient events had a subsequent admission to a public facility within seven days of discharge. Overall, the costs to the public system amounted to \$11.5 million, with a median cost of \$2800. At least a third of subsequent admissions were related to complications of a medical procedure.

Implications

Although only a small proportion of private events had a subsequent public admission, the public health system incurred significant costs. As New Zealand considers the future of its health system, these findings highlight the need for greater understanding and discussion around the interface between the public and private health systems.

Can't Pay? Go back to Hospital. How a Publicly funded General Practice Clinic can improve access for more disadvantaged populations

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¹Ko Awatea (Counties Manukau DHB)

Objectives

To explore the feasibility that a General Practice (GP) clinic, funded and under the control of a District Health Board (DHB), will increase access for more disadvantaged populations, achieve a higher degree of integration than GP Clinics working under a commercial model, and strengthen the Primary Care System in New Zealand.

Methods

We created a financial model using existing evidence to calculate the cost of a publicly funded GP clinic compared to a standard GP clinic. We then tested our model against 12 different commercial GP clinics for validation.

Lessons Learned

Our model proved to be highly accurate for calculating income and costs of a GP clinic. We showed that if a DHB decided to open a publicly funded GP clinic, it could do so at a lower cost compared to the current GP clinic funding mechanisms. We created a flexible model that allows to model specific GP clinic's dummies for different models of care. These models will help funders and managers in a DHB to assess the cost-effectiveness of different GP clinic funding models.

Implications

The Public Health System now has an alternative to the current commercial model of GP clinics. This alternative will be financially advantageous and has the potential to increase access by lowering co-payments or allow for no co-payments with the money being saved by the Public Health System.

Inequities in access to primary health care: lessons from administrative and survey data on enrolments and having a usual GP 2002-2019

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Objectives

We set out to understand to what extent New Zealanders are not enrolling in Primary Health Organisations (PHO), their socio-demographic profile, and how this has evolved over time. This is important as people not enrolled with a PHO cannot benefit from lower doctor and nurse consultation fees, plus it hinders continuity of care.

Methods

We analysed and compared similar indicators from two data sources: (a) proportion of people enrolled with a PHO, as per administrative data from the Ministry of Health (MoH); and (b) proportion of people having a usual General Practitioner (GP), from the New Zealand Health Survey (NZHS).

Lessons Learnt

In 2018, about 7% of the population was not enrolled with any PHO, which is greater than in 2015 (5%). There are significant and persistent differences across socio-demographic profiles. Māori have lower enrolment rates (90%) than other ethnic groups (95% for NZ Europeans). Youth (87%) and younger adults (93%) are less likely to be enrolled than other age groups (97-98%). People living in affluent areas (as indicated by NZDep Index) are more likely to be enrolled (96% enrollment rate for NZDep 1-2 deciles compared to 90% for NZDep 5-8 deciles) (2018 figures). Overall, administrative and NZHS data show similar trends.

Implications

Inequities in PHO enrolments exist between socio-demographic groups. We need to better understand why people are not enrolling with a PHO and how this affects their health seeking behaviour and health status.

Cost barriers to primary health care for Māori in New Zealand

Mona Jeffreys¹ and Jackie Cumming¹

¹Health Services Research Centre, Victoria University of Wellington

Objective

To understand cost as a barrier to primary health care for Māori adults.

Methods

Data on 79,790 people (16,750 Māori) from annual sequential waves of the New Zealand Health Survey (2011/12 to 2016/17) were analysed, accounting for the complex survey design.

Participants were asked whether, in the past year, they had not seen a GP and/or not filled a prescription due to cost. Deprivation was measured using quintiles of NZDep2006/ NZDep2013, as appropriate for each wave. Ethnicity was self-reported.

Lessons Learned

Among Māori, 22.3% (95%CI:21.4%-23.1%) could not afford to see a GP, compared to 12.9% (95%CI:12.5%-13.2%) of non-Māori. The trends over time for each group were static. Cost as a barrier was higher for Māori than non-Māori at each level of deprivation, reaching 25.7% (95%CI:24.4%-27.0%) for Māori in the most deprived areas. Among those who saw a GP, the average fee in 2016/17 was \$26.84 for Māori and \$38.74 for non-Māori.

Among Māori, 14.7% (95%CI:13.0%-15.4%) were unable to pay for a prescription, compared to 5.3% (95%CI:5.1%-5.6%) of non-Māori. For Māori, the proportion fell from 17.8% in 2011/12 to 13.8% in 2016/17 ($P=0.046$); for non-Māori, the trend was static. At each deprivation level, Māori were over twice as likely to report not being able to fill a prescription compared to non-Māori.

Implications

Cost persists as a barrier to care, with little improvement since 2011. Despite very low-cost access practices located in areas of high deprivation charging lower fees, many Māori in these areas cannot afford GP visits or prescription charges.

Publicly-funded oral health service provision for high needs and vulnerable New Zealanders: a national overview

Moira Smith¹, C. Anna Ferguson¹ and W. Murray Thomson²

¹University of Otago, Wellington

²University of Otago

Purpose

High needs and vulnerable (HNV) people are a key priority in NZ's strategic vision for oral health, yet have poorer oral health and access to dental services. Their complex management often requires hospital-level oral care. Issues in NZ's hospital dental services (HDS) likely contribute to their poor oral health. This study aimed to gain an in-depth understanding of NZ's HDSs and how to improve matters.

Method

This research used mixed methods. Data sources included: (i) routinely-collected HDS utilisation data from NZ's 20 District Health Boards (DHBs); and (ii) semi-structured interviews with HDS clinical leaders (n=22) from each DHB, to gather their perspectives on the nature of the hospital dental facilities, staff and services. Quantitative data were analysed descriptively and text data thematically, guided by the Ministry of Health's HDS specifications.

Lessons learned

One-third of DHBs have limited or no HDS; in those that do, resourcing—facilities, workforce and leadership—varies widely. Increasingly, greater multimorbidity prevalence and improved tooth retention places pressure on, and reduces the capacity of, almost all HDSs to manage and deliver services; most impacted of all HNV people are low-income adults. There is a lack of visibility and prioritisation of oral health within almost all DHBs.

Implications

Inconsistencies in the provision of HDSs likely contribute to HNV Nzers' poor oral health and access to services, perpetuating oral health inequalities. Increased resourcing and workforce planning, reorientation of some services, meaningful monitoring and evaluation of services, and a national strategy to plan and coordinate HDSs are required.

Association between Indonesia's national health insurance and inequity in access to maternal health services

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Objective

In 2014, the government of Indonesia launched a national health insurance scheme, *Jaminan Kesehatan Nasional* (JKN), which replaced a previously fragmented health insurance system. This study evaluates the association between JKN and utilization of maternal healthcare and inequity in access to services.

Methods

Using data from the 2017 Indonesia Demographic and Health Survey on women who had had a live birth in the previous two years, we used propensity score matching (PSM) to evaluate the association of JKN enrollment on maternal healthcare use outcomes. Analyses were conducted at the national level and sub-nationally by economic subgroup and region of residence.

Lessons Learned

Overall, 64% of the 5,704 women who had recently given birth were covered by JKN in 2017. After matching treated and untreated women on key socio-demographic characteristics, JKN enrollment was found to be associated with a higher prevalence of receiving at least four antenatal care (ANC) visits with skilled provider (5.7 pp [95% CI 3.0-8.3]); skilled birth attendance (2.8 pp [95% CI 1.2-4.4]; institutional delivery (9.3 pp [95% CI 7.2-10.7]); post-natal care (PNC) with skilled providers (3.9 pp [95% CI 2.1-5.6]). Effect sizes were larger among the poor and those who lived in less-developed areas, such as Eastern Indonesia and Sulawesi.

Implications

Improving service coverage and reducing user charges were associated with improved maternal health service utilisation, particularly for the lower-income groups in Indonesia. Accelerating progress towards universal health coverage through prepayment mechanisms can lead to improved health outcomes and reduced health inequalities.

Moving past the panic - healthcare staff responses to disinvestment– a systematic search and qualitative thematic synthesis

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¹Monash Health, ²Monash University, ³Swinburne University

Objective

Healthcare services must deliver high quality, evidence-based care that represents sound value. Disinvestment is the process of withdrawing resources from any existing health care practices that deliver low value, and reallocating these toward practices that are more effective, efficient and cost effective.

Methods

This is the first review to examine the responses of healthcare staff to disinvestment and investigate the factors that increase the likelihood of staff accepting reallocation of resources from health services they provide. We conducted a systematic search of five electronic databases using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) framework. A critical appraisal process of the quality of the studies was performed by two authors. We undertook a thematic synthesis of the qualitative data to develop an overarching narrative.

Lessons learned

Twelve studies were identified for synthesis and all found that the disinvestment process was challenging and controversial for those staff involved. Negative staff reactions to disinvestment identified were anxiety, disempowerment, distrust, and feelings of being dismissed and disrespected. Healthcare staff have a strong professional identity associated with autonomy in their decision making in the provision of healthcare services. Disinvestment from a service that is usually provided threatens this identity.

Implications

Engaging clinical champions to lead change, using rigorous patient outcome data and transparent decision-making processes may assist staff to embrace a new identity as innovators and accept disinvestment in low value healthcare. Engagement with disinvestment was observed when staff were participants in a process they considered transparent and in the best interests of the community.

The value of implementation theory for changing practice in the emergency department (T³ Trial). Findings from a mixed-methods process evaluation.

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⁵National Centre for Epidemiology and Population Health, Australian National University, Canberra

⁶University of Sydney, Centre for Diabetes and Endocrinology Research, Sydney

⁷Westmead Hospital, Centre for Diabetes and Endocrinology Research, Sydney

⁸University of New South Wales, The Sydney Partnership for Health Education Research & Enterprise, Sydney

Objectives

A multidisciplinary, multifaceted protocol-based intervention to improve emergency department (ED) care for stroke patients implemented in Australian EDs (T³ trial) had no significant effect on patient outcomes or processes of care. A mixed-methods *a priori* process evaluation was conducted to identify factors that influenced protocol uptake.

Methods

Pre-implementation: i) Web-based survey of expert clinicians (n=17) to rank barriers to uptake; ii) Multidisciplinary workshops to develop barrier action plans (n=13 intervention sites); iii) Barriers from both sources mapped to Theoretical Domains Framework (TDF) and matched to behaviour change techniques (BCTs). Post-implementation: i) Interviews of ED and stroke clinicians (n=25) on factors affecting uptake (n=25). ii) Comparison of unresolved barriers with barriers identified from interview data. Findings from survey (descriptive statistics) and interviews (thematic analysis) were triangulated.

Lessons learned

Unresolved barriers at trial completion that hindered protocol uptake and intervention fidelity were: i) ED clinician beliefs about the applicability of the evidence for some protocol elements; ii) perceived clinical boundaries between stroke team and ED; iii) dynamic nature of ED work-flow.

Implications

A theoretically informed approach using the TDF and matched BCTs, was useful for addressing concrete barriers such as those relating to the environment, resources and education. However, this approach had limited value for identifying and addressing complex barriers within a highly dynamic clinical setting. Existing frameworks and theories should consider the findings from process evaluations that have identified complex and interacting organizational and behavioural barriers are difficult to identify *a priori* and to overcome.

eHealth technologies: A retrospective analysis of factors influencing implementation of an orthopaedic web portal

Quoc Nguyen¹, Diana Perriman^{1,2}, Paul Smith^{1,2}, Anne Parkinson³, Jane Desborough³

1. ANU Medical School

2. Trauma and Orthopaedic Research Unit, ACT Health

3. Department of Health Services Research and Policy, Research School of Population Health, Australian National University (ANU)

Objective

We co-designed a web portal (OrthoApp) with patients and clinicians to support preparation for, and recovery from lower limb arthroplasty. Evidence suggested that such an approach would optimise uptake of this technology. Our objective was to evaluate the efficacy of OrthoApp in terms of improving patient enablement and reducing unplanned 30 day readmission to hospital.

Methods

The planned evaluation was a comparative effectiveness study, with the control group undergoing conventional physiotherapy while the experimental group was offered the use of Ortho-App as an adjunct to conventional physiotherapy. Poor adoption resulted in an absence of comparative survey data, prompting us to examine the reasons for technological non-adoption using Greenhalgh's "Non adoption, abandonment, scale-up, spread and sustainability" (NASSS) framework.

Lessons Learned

Our retrospective analysis led us to conclude that the Ortho-App was not viewed as 'necessary' by patients and was also a challenge to integrate into a well-versed clinical routine. Reasons for technological non-adoption are often conceptual in nature, and not exclusively the product of technological and logistical limitations. We postulate that the rollout of novel health technologies is driven by the relationship between perceptions of value added and how technology changes the role and routine of potential adopters.

Implications

We propose that effective development and implementation of novel health technologies should incorporate a pragmatic, stepwise approach with clear value proposition that mitigates barriers to technological acceptance.

An examination of factors that challenge or facilitate implementation of the Baby Friendly Hospital Initiative in Australia and Ten Steps to Successful Breastfeeding in Indonesia: study protocol

Andini Pramono¹, Jane Desborough¹, Siobhan Bourke¹ and Julie Smith¹

1. Department of Health Services Research and Policy, Research School of Population Health, Australian National University

Objectives

Breastfeeding has benefits to infant and maternal health. The exclusive breastfeeding rate globally is only 41%. The WHO launched the Ten Steps to Successful Breastfeeding (Ten Steps) in 1989, followed by the Baby Friendly Hospital Initiative (BFHI) in 1991 to ensure adequate support for mothers to breastfeed in maternity facilities. In Australia 23% of hospitals are BFHI accredited while in Indonesia 8% of government hospitals implement the Ten Steps program as there is no BFHI program. This study underpinned by the Social Return on Investment and the Non-Adoption, Abandonment, Scale-up, Spread and Sustainability (NASSS) frameworks aims to identify the facilitators and barriers to implementing these policies in Australia and Indonesia

Methods

This mixed methods study will be conducted in one hospital in Surabaya, Indonesia and one hospital in Canberra, Australia. Cost data will be collected with senior hospital managers. Interviews with managers, and focus groups with midwives and nurses will further inform our understanding of costs and benefits and policy implementation as applied to the NASSS.

Lessons Learned

These results will inform hospitals and policymakers about the return on investment, and the total spending on the BFHI and Ten Steps programmes in both hospitals. The qualitative aspects of the research will identify the barriers and facilitators to implementation of the BFHI and Ten Steps from a hospital staff perspective.

Implications

This study will contribute to the evidence regarding the cost, return on investment and implementation of the BFHI and Ten Steps program in promoting breastfeeding.

THURSDAY 5 DECEMBER 2019

Concurrent sessions 4A – 4C

4A HCF Foundation Sub Plenary Symposium - Reducing Unnecessary Hospital Admissions and Complications |

4A.1 10:55 | The effectiveness and cost-effectiveness of using chlorhexidine prior to urinary catheter insertion. Brett Mitchell, Avondale College of Higher Education, University of Newcastle, Australia

4A.2 11:10 | Admission Risk Calculation in General Practice: Reducing hospital presentations and admissions in chronic disease. Christopher Pearce, The University of Melbourne, Melbourne, Australia

4A.3 11:30 | Reducing hospital variation in cardiovascular implantable electronic device complications. Isuru Ranasinghe, Basil Hetzel Institute for Translational Research, University of Adelaide, Central Adelaide Local Health Network, Adelaide, Australia

4A.4 11:45 | This Way Up: Internet Cognitive Behavioural Therapy for Perinatal Depression and Anxiety. Jill Newby, UNSW, Sydney, Australia

4B Fundamentals of Care - An Equity Framework Sub Plenary Symposium |

4B.1 10:55 | Fundamentals of care: a framework to achieve equity in healthcare. Symposium Lead: Alison Kitson, Flinders University, Australia.. Presenters: Rebecca Feo, Tiffany Conroy, Flinders University, Australia; Denise Wilson, Auckland University of Technology, Merryn Gott, Tess Moeke-Maxwell, Jackie Robinson, University of Auckland, Jenny Parr, Counties Manukau District Health Board, New Zealand Australia

4C Integrated Knowledge Translation Sub Plenary Symposium |

4C.1 10:55 | Making an impact: Using integrated knowledge translation to build KT plans. Symposium Lead: Ian Graham, University of Ottawa, Canada. Presenters: Ian Graham, Ottawa Heart Research Institute, Chris McCutcheon, Ottawa Hospital Research Institute, Anita Kothari, Western University, Canada

The effectiveness and cost-effectiveness of using chlorhexidine prior to urinary catheter insertion

Authors: Brett G Mitchell^{1,2}, Allen C Cheng^{3,4}, Oyebola Fasugba^{1,5}, Anne Gardner⁶, Nicholas Graves⁶, Jane Koerner⁵, Peter Collignon^{7,8}

¹ Avondale College of Higher Education, ² University of Newcastle, ³ Monash University, ⁴ Alfred Hospital, ⁵ Australian Catholic University, ⁶ Queensland University of Technology, ⁷ Australian National University ⁸ Canberra Hospital and Health Services

Objectives

To evaluate the effectiveness and cost-effectiveness of using chlorhexidine in meatal cleaning prior to catheter insertion, in reducing catheter-associated asymptomatic bacteriuria (CA-ASB) and catheter-associated urinary tract infection (CAUTI).

Methods

A 32 week, stepped wedge randomised controlled clinical trial was conducted at three Australian hospitals. The intervention was the use of chlorhexidine (0.1%) solution for meatal cleaning prior to catheter insertion, the control was normal saline (0.9%). A Poisson regression model was used to estimate the impact of the intervention. There was no expected delay in the effect of intervention on the outcome. The stepped wedge design allows hospitals to act as their own control. An incremental cost-effectiveness ratio was used to assess cost relative to health benefits.

Lessons learned

The intervention was associated with a 74% reduction in the incidence of CA-ASB (IRR 0.26, 95%CI 0.08–0.86, $p=0.026$), and a 94% decrease in the incidence of CAUTI (0.06, 95%CI 0.01–0.32, $p<0.001$). There were no reported adverse events. The changes in health costs from switching from saline to 0.1% chlorhexidine per 100,000 catheterisations would save hospitals AUD\$387,909 per 100,000 catheterisations. Using a maximum willingness to pay for a marginal quality adjusted life year threshold of AUD\$28,000 and an accounting model for valuing bed days, suggests 100% probability that adopting chlorhexidine would be cost-saving.

Implications

The available evidence suggests that the benefits in preventing a clinically-relevant infection may be substantial while the potential risks are small. We recommend updating healthcare policy and clinical practice to reflect this new finding.

Admission Risk Calculation in General Practice: Reducing hospital presentations and admissions in chronic disease

Christopher Pearce, Outcome Health, Blackburn, Australia

Objective

To determine the applicability of using machine learning to develop advanced decision support for general practitioners to detriment the risk of emergency department admission.

Methods

Outcome Health maintains the Aurora database of GP data derived from general practices in eastern Australia. First, we identified all the patients admitted to a local emergency department in the past 7 years who were also represented in the database.

Then we extracted and cleaned the data, and put it through a machine learning tool, with a view to developing a risk prediction tool.

Lessons learned

When developed, the tool (on test data) demonstrated 75% accuracy on predicting the risk of admission to an emergency department in the next 30 days. The tool was less successful over long periods of time. The resultant decision support tool is able to be delivered to the GP at the time of consultation, with the patient still in the room.

The challenges we faced were structuring the data for the tool, and cleaning and coding the data to increase the usability. That the tool was more accurate than any existing tools was due to the use of machine learning.

Implications

This is one of the first, large scale implementations of artificial Intelligence in primary care. It raises significant challenges in the utility and adoption into clinical practice.

Reducing hospital variation in cardiovascular implantable electronic device complications

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⁸Section of Cardiovascular Medicine, Department of Internal Medicine, Yale School of Medicine, Yale University, New Haven, CT, United States

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Objectives: Cardiovascular implantable electronic devices (CIEDs) are associated with procedure-related complications yet little is known about institutional variation in complication rates that may suggest variation in care quality. We assessed variation in rates of CIED complications among hospitals in Australia and New Zealand

Methods: We included 81,304 patients aged >18 years (mean 74.7±12.4y, 37.9% female) with a new CIED (65,711 permanent pacemakers (PPMs), 15,593 implantable cardioverter-defibrillators (ICDs)) from 2010-15. The study cohort included data from 174 hospitals; of these, 98 implanted ≥25 CIEDs during the study. The primary outcome was the hospital risk-standardized complication rates (RSCR) and frequencies of major device-related complications occurring in-hospital or within 90 days of discharge.

Lessons learned: Of the cohort, 6,664 (8.2%) patients experienced a major complication. Complications were higher for ICDs than PPMs (10.04% vs 7.76%) although 76.5% of all complications were attributable to PPMs (5,098 vs 1,566 for ICDs). In hospitals implanting ≥25 CIEDs, the median RSCR was 8.1%, but rates varied from 5.3% to 14.3%, with 22 hospitals identified as significantly different from the national average. Similar variation was observed when hospitals' RSCR for PPM implants (n=96 hospitals, median RSCR 7.6%, range 5.4%-12.9%) and ICD implants (n=68 hospitals, median RSCR 9.7%, range 6.2%-16.9%) were considered separately and persisted when limited to elective procedures (n=88 hospitals, median RSCR 7.4%, range 4.7%-13.0%).

Implications: CIED complications are common and vary widely among hospitals, suggesting institutional variation in CIED care quality. Concerted clinical and policy interventions are needed to address CIED-related complications. These efforts should preferentially target PPMs as most CIED complications are attributable to PPMs.

Gaining 'MUMentum': Brief Self-Guided iCBT for Perinatal and Depression

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²School of Psychology, University of New South Wales, Australia

Anxiety and depression during the perinatal period – the period from pregnancy to 12 months after birth – are common, disabling, and associated with significant adverse outcomes for the mother, baby, their partner and family. With support from an HCF Foundation Grant, we developed two new brief self-guided internet cognitive behavioural therapy (iCBT) courses for women experiencing depression, anxiety and/or distress during the perinatal period: the *MUMentum Pregnancy* and *MUMentum Postnatal programs*. The MUMentum programs are 3 modules each, tailored specifically to address the challenges faced by mothers during the perinatal period. They educate women how to detect common symptoms of depression and anxiety, and how to improve their own mental health using practical skills and strategies. We conducted two (now published) randomised controlled trials, with a total of 218 women experiencing clinical depression and/or anxiety, to compare outcomes of the MUMentum programs to usual care control group. We found both *MUMentum* programs resulted in significant improvements in distress, depression and anxiety from before to after treatment, had high completion rates (>75%), high patient satisfaction, and that both programs outperformed the control group on key outcome measures. The improvements in symptoms were maintained at one-month follow-up. Since the completion of the clinical trials, our team has disseminated the MUMentum programs on THIS WAY UP (thiswayup.org.au), a federal government supported online platform that makes effective online treatments available to the general community. In total more than 150 women have signed up for the courses. This presentation will provide an overview of the *MUMentum programs*, how these programs can provide an accessible, low cost method to improve anxiety and depression during pregnancy and the postnatal period, implications for clinical practice and an overview of the positive impact of the programs on women in the community.

Fundamentals of care: a framework to achieve equity in healthcare

Symposium Lead: Professor Alison Kitson, Vice President and Executive Dean, College of Nursing and Health Sciences, Flinders University, South Australia

Fundamentals of care: a framework to achieve equity in healthcare.

This symposium explores the link between fundamental care and healthcare inequities for Māori (indigenous people of Aotearoa New Zealand).

Fundamental care involves care activities addressing a person's essential, universal healthcare needs. The Fundamentals of Care Framework outlines how to deliver this care in a relationship-centred, integrated manner. This symposium will utilise the Fundamentals of Care Framework as a milieu for demonstrating that (1) provision of fundamental care is a human right that must be attended to for everyone; and (2) by addressing this human right we can tackle healthcare inequities. Firstly, we will outline the Fundamentals of Care Framework and make the argument for fundamental care as a human right.

The second presentation explores a core dimension of the Framework; the requirement for positive therapeutic relationships between care providers and recipients. This demonstrates that establishing these positive relationships is essential for ensuring equitable care for Māori, who face persistent difficulties when engaging with health professionals.

The third presentation further explores relational care, demonstrating how the establishment of positive provider-recipient relationships can be supported within the bicultural context of New Zealand by the *Kapakapa Manawa* framework, which promotes compassionate nursing practice for patients with palliative care needs and the wider patient population.

Finally, we will explore how health services can accommodate culturally-preferred methods for Maori to provide feedback regarding their experiences of fundamental care delivery, thus ensuring their voice and experience are adequately represented and are central to health system improvement.

Presentation one

Dr Rebecca Feo, Research Fellow, College of Nursing and Health Sciences, Flinders University, South Australia.

Dr Tiffany Conroy, Senior Research Fellow, College of Nursing and Health Sciences, Flinders University, South Australia.

Introducing fundamental care

Fundamental care involves care activities addressing a person's essential, universal healthcare needs. The Fundamentals of Care Framework, developed in 2012 by the International Learning Collaborative, outlines how to deliver this care in a relationship-centred, integrated manner. In this presentation, we explore the development of the Framework and its mobilization, as a backdrop for understanding how fundamental care can help us understand and address healthcare inequities. We show how the Framework's adaptability and flexibility can guide clinicians in meeting universal care needs in ways that are culturally safe and responsive to the unique requirements of different population groups.

Presentation two

Professor Denise Wilson, Professor Māori Health, Co-Director Taupua Waiora Centre for Māori Health Research, Associate Dean Māori Advancement, Faculty of Health & Environmental Sciences, Auckland University of Technology.

Poipoia te kakano, kia puawai

Nurture the seed and it will blossom

Establishing positive and functional relationships is an important fundamental of care. Respectful relationships are essential for ensuring equitable care for Māori (indigenous people of Aotearoa New Zealand) who face persistent difficulties engaging with health professionals, including nurses. This whkatauī (proverb) highlights the importance of first and subsequent encounters for Māori and their whānau (extended family network), particularly for establishing trust and ongoing relationships. Research with Māori reinforces how nurses can play crucial roles in establishing relationships with the 'patient' their whānau to improve health outcomes.

Presentation three

Professor Merryn Gott, Director Te Arai Palliative Care and End of Life Research Group, Professor of Health Sciences, Associate Head (Research), School of Nursing, University of Auckland.

Dr Tess Moeke-Maxwell, Lead Maori researcher Te Arai Palliative Care and End of Life Research Group, Research Fellow, School of Nursing, University of Auckland.

Dr Jackie Robinson, Te Arai Palliative Care and End of Life Research Group, Senior Lecturer, School of Nursing, University of Auckland and Nurse Practitioner, Auckland District Health Board.

Optimising compassionate nursing care at the end of life using a bicultural framework

Using findings from a study of family's/whānau experiences of end of life care in hospital, we extended Nolan and Dewar's compassionate care framework to reflect the bicultural context of Aotearoa, New Zealand. Our 'Kapakapa Manawa' framework includes: *he ngākau aroha* (relationships that express compassion), *whakawhanaungatanga* (establishing good relationships), *te taukiri o ngātangata Māori* (using contextualised knowledge of the patient and whānau/family) and *manaakitanga* (reciprocal caring).

The Kapakapa Manawa framework can support the relational aspects of the Fundamentals of Care and promote compassionate nursing practice for patients.

Presentation four

Dr Jenny Parr DHSc, RN, Chief Nurse and Director of Patient and Whaanau Experience, Counties Manukau District Health Board, New Zealand

A face to face feedback process of delivery of fundamental care to understand Maori and pacific experiences

Maori and pacific people are over-represented in hospital inpatient services. Traditional service feedback processes, like online surveys, do not meet the needs of these groups. While complaints to the Health and Disability Commissioner are not reported by ethnicity, the DHB's inpatient survey confirms the lack of a representative voice. Given the Te Tiriti o Waitangi obligations health services must partner with Maori to improve services. This presentation describes the process and results of a face-to-face feedback process which successfully addressed this inequality.

Making an impact: Using integrated knowledge translation to build KT plans

Symposium Lead: *Ian Graham, School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario, Canada*

Rationale for Symposium:

Inherent to all research is the obligation to disseminate and facilitate the use of research findings to appropriate audiences in an effective manner. Researchers are generally aware of the importance of building KT capacities through their academic journey; however, the skills needed to develop a KT plan as part of their research work or how to use an integrated KT approach to develop a KT plan are seldom emphasized or taught. Co-production (or IKT) methods can be applied to dissemination planning to achieve greater impact.

Topic description

This symposium aims to provide participants with a deeper understanding of end of project KT strategies, and direction on the integration of these strategies into research proposals, projects, grants and funding applications.

Presentation one

Ian Graham, *School of Epidemiology and Public Health, University of Ottawa, Ottawa, Ontario, Canada*

Overview: Integrated Knowledge Translation research requires researchers to work with knowledge users (e.g., patients, clinicians, managers, policy makers) who identify a problem and have the authority to act on the findings. It is generally accepted in knowledge translation that this approach leads to an increase in the relevance, applicability and impact of research results. Although many stakeholders, including research funders, are heavily invested in the IKT approach, we know very little about how it works, how best to support it, or even the magnitude of its impact.

Presentation two

Chris McCutcheon, *Integrated Knowledge Translation Research Network, Ottawa Hospital Research Institute, Ottawa, Ontario, Canada*

Overview: The objectives of this part of the symposium are to: 1) Identify the key elements comprising a strong end of grant KT plan and a KT plan developed using an Integrated KT approach; and 2) Critically appraise KT plans. Participants will have practical strategies for applying integrated knowledge translation to dissemination planning.

Presentation three

Anita Kothari, *School of Health Studies, Western University, London, Ontario, Canada*

Overview: The purpose of this part of the symposium is to discuss hidden IKT issues: i) Decision makers should be involved in all stages, but what stages are necessary or essential? Some empirical literature demonstrates that not all stages necessary. ii) Does it help to think about IKT relationships as Communities of Practice? They seem to fit the essential elements of a CoP: Domain (identity, shared domain of interest); Community (joint activity, share information); Practice (shared repertoire, shared practice). iii) What is the best way to organize these IKT relationships: What level (project, organization, system, regional) leads to productive interactions? the use of research? sustained implementation? iv) The role of previous relationships, and power.

THURSDAY 5 DECEMBER 2019

Concurrent sessions 5A - 5H

5A Kaupapa Maori Symposium |

5A.1 13:10 | Kaupapa Māori - research reforming health service: The Harti exemplar. Symposium Lead: Nina Scott, Waikato District Health Board, New Zealand. Presenters: Nina Scott, Polly Atatoa-Carr, Amy Jones, Waikato District Health Board; Rebekah Graham, Bridgette Masters-Awatere, University of Waikato, New Zealand

5B Pharmaceuticals and Pharmacists Session |

5B. 1 13:10 | The convergent validity of seven health state utility instruments, Ross Wilson, University of Otago New Zealand

5B. 2 13:25 | A theory of change for equitable access to medicines in Aotearoa New Zealand. Sandy Bhawan, PHARMAC New Zealand

5B. 3 13:40 | What do consumers think of their advanced practitioner? Evaluating nurse practitioner and pharmacist prescriber roles in New Zealand. Tara Officer, Victoria University of Wellington, New Zealand

5B. 4 13:55 | Eliciting Community and Health Professionals' Preferences for Values That Should Underpin Policies for the Allocation of Kidneys from Deceased Donors: A National Best-Worst Scaling Survey. Martin Howell, University of Sydney Australia

5B. 5 14:10 | Cost-utility analysis of pharmacist-led medication review in primary care patients with hypertension, type 2 diabetes mellitus and dyslipidaemia. Antonio Ahumada-Canale, University of Technology Sydney Australia

5C Registry Science Symposium |

5C.1 13:10 | Developments in registry science. John McNeil, Monash University, Australia. Presenters: John McNeil, Susan Evans, Arul Ernst, Monash University, Australia

5D Continuity of Primary Care Symposium |

5D.1 13:10 | Does continuity of primary care reduce potentially preventable hospital admissions? Symposium Lead: Rachael Moorin, Curtin University, Australia. Presenters: David Youens, Rachael Moorin, Cameron Wright, Ninh Ha, Curtin University Australia

5E Cancer Services |

5E.1 13:10 | Trading between quality of life and survival when choosing cancer treatment: A discrete choice experiment. Alison Pearce, University of Sydney Australia

5E.2 13:25 | Preferences for anxiety and depression screening in cancer care - A discrete choice experiment. Jackie Yim, Centre for Health Economics Research and Evaluation, UTS Australia

5E.3 13:40 | Impact of ethnicity, socio-economic deprivation and treatments on the survival of patients with multiple myeloma in NZ: results from linked national healthcare databases. Richard Milne, University of Auckland New Zealand

5E.4 13:55 | Timeliness of Treatment for Different Cancer Types in New Zealand. Rob McNeill, University of Auckland New Zealand

5E.5 14:10 | Inequalities in the Timeliness of Treatment of Cancer Patients in New Zealand. Simona D'Silva, University of Auckland New Zealand

5F Advances in HSR Methods |

5F.1 13:10 | Can analysis of the effect of social disadvantage on access to healthcare be improved through the use of causal pathways? Rachael Morton, NHMRC Clinical Trials Centre Australia

5F.2 13:25 | Creating Synergies for Effective Co-Produced Research: A Realist Review. Anita Kothari, Western University Canada

5F.3 13:40 | The role of radio in health research: A scoping Review. Moneca Sinclair, College of Nursing, University of Manitoba Canada

5F.4 13:55 | Comparability of online out-of-pocket tools from Australian private health funds. Kelsey Chalmers, The University of Sydney Australia

5F.5 14:10 | Are scenarios useful for understanding processes of change in the health sector? Lesley Middleton, Victoria University of Wellington New Zealand

5G Integrated Care Innovations Symposium |

5G.1 13:10 | Disruptive Innovations: Success stories from the Integrated Care Innovation Fund. Symposium Chair: Carly Dyer, Queensland University of Technology, Australia. Presenters: Nicole White, Robin Blythe, Hannah Cater, David Brain, Australian Centre for Health Services Innovation Queensland University of Technology, Australia

5H Long Term Conditions |

5H.1 13:10 | Mana Tū: A whānau ora approach to long term conditions. Matire Harwood, University of Auckland New Zealand

5H.2 13:25 | Is Assisted Peritoneal dialysis a solution for northern Manitoba? Josée G. Lavoie, University of Manitoba Canada

5H.3 13:40 | Quality and targeting of diabetic retinopathy referrals: An audit of patient records at a public hospital ophthalmology service in Western Sydney, Australia. Belinda Ford, The George Institute for Global Health Australia

5H.4 13:55 | Understanding barriers and facilitators to engagement in a multi-disciplinary service for childhood obesity. Cervantée Wild, Liggins Institute, University of Auckland / Taranaki District Health Board New Zealand

5H.5 14:10 | Patterns of diabetes prevalence and incidence in First Nations people in Ontario, Canada: Implications for health care delivery and organization. Jennifer Walker, Laurentian University Canada

5H.6 14:15 | The symptom monitoring with feedback trial (SWIFT): A novel registry-based cluster randomized controlled trial among Australian and New Zealand adults on kidney dialysis. Suetonia Palmer, University of Otago New Zealand

Kaupapa Māori - research reforming health service: The Harti exemplar.

Symposium Lead: Dr Nina Scott, Waikato District Health Board.

Rationale for Symposium:

To highlight how Kaupapa Māori oriented research can inform decision makers to affect positive Māori health outcomes at the DHB level.

Topic description

A large proportion of Māori children are admitted to hospital every year with diseases of poverty. An audit in 2015 found that essential preventative care was not being provided for these children and their whānau and over 1/3 of tamariki (children) were readmitted within 6 months. In response, Harti Hauora Tamariki was co-designed and implemented.

The Harti study aims to evaluate the impact of the Harti Programme - a whānau screening and navigation approach that identifies and addresses wellbeing needs for tamariki and their whānau, and at the systems level, takes a continuous and deliberative approach to the identification and addressing of service gaps from the perspectives of whānau and staff. This 3 year pragmatic Randomised Control Trial is funded by the Health Research Council of New Zealand. The intervention (a Harti review, using the Harti tool by a trained Research Assistant during inpatient care) is randomly assigned, with the control group receiving usual hospital-based care.

This symposium describes the development and delivery of the Harti Programme, presents initial study findings, highlights opportunities to achieve sustainable health equity, and comments on the challenges and opportunities for health professionals and researchers to work collaboratively in order to affect change. In doing so, we provide opportunity for feedback and invite discussion on ways to facilitate communication between researchers and policymakers and to ensure sustainable capacity in equity focussed health services research.

Presentation one:

Harti Hauora Tamariki : Background to the study

Dr Nina Scott (Waikato District Health Board)

Overview: The Harti Hauora Tamariki Programme is a holistic approach to improving outcomes for children and their families. The Harti approach centralises Maori health gain and development, privileges Maori models of care and supports Māori language and culture. It also applies principals of Systems Science and Integrated Knowledge Translation. After over 5,000 tamariki going through the Programme we designed a study to measure impact. Harti was recently recognised as an outstanding innovation by the Health Round Table and plans are afoot to expand Harti into primary care and maternity, cardiac and cancer care. This presentation will tell the Harti development story.

Presentation two:

Meeting unmet health and non-health needs within the secondary health care sector

Dr Polly Atatoa-Carr (Waikato District Health Board, University of Waikato) & Dr Amy Jones (Waikato District Health Board)

Overview: The Harti Hauora Tamariki Study has an anticipated participation of approximately 1000 Māori and non-Māori children aged 0-4 years admitted to paediatric medical services at Waikato hospital. The primary endpoint is readmission risk. Early socio-demographic data from the whole research cohort, and quantitative assessment of health and non-health need, describe the importance of a standardised and whānau-centred approach to service navigation and delivery. Furthermore, whānau and community contexts for the delivery of services (secondary, primary and preventative) highlight important opportunities, particularly within the early lifecourse, to achieve sustained health system performance improvements and achieve health equity.

Presentation three:

Whānau realities on the ward – hunger, isolation and low expectations

Dr Rebekah Graham (University of Waikato)

Overview: This presentation draws on the qualitative interviews (n=24) with whānau members of tamariki Māori admitted to the paediatric ward of Waikato Hospital. Whānau members identify financial stressors and strain, experiences of hunger and isolation, and deep concern for their child's well-being as common causes for concern. Whānau also discuss their experiences of the Harti tool; particularly how experiences of being treated with dignity, respect and value had a positive impact, which led to further positive engagement with culturally responsive social services.

Presentation four:

Kaupapa Māori research informing policy development

Dr Bridgette Masters-Awatere (University of Waikato)

Overview: New Zealand's health service design and delivery has been established in ways that privilege individualistic, clinical discourses and acute need. From the outset, this type of public health service delivery has disadvantaged Māori. The challenge of maintaining Kaupapa Māori orientation in the face of a system set up for, by and with Pākehā in mind has been ongoing. Rather than maintain a deficient lens, I highlight ways in which this team of Māori and non-Māori (academics, researchers and health staff) have worked collaboratively to affect change at different levels of health care.

The convergent validity of seven health state utility instruments

Carsten Schousboe¹, Ross Wilson², J. Haxby Abbott²

¹ PHARMAC New Zealand

² Centre for Musculoskeletal Outcomes Research, University of Otago

Objectives

To conduct a systematic review and meta-analysis of the convergent validity of seven generic health-related quality of life (HRQoL) instruments – the EQ-5D-3L, EQ-5D-5L, SF-6D, HUI3, AQoL-8D, 15D, and QWB.

Methods

We conducted a systematic literature review to identify all studies reporting on the correlation between two or more generic HRQoL instruments and at least one disease-specific HRQoL measure. For each study, we extracted the reported correlation between each generic and each disease-specific instrument, and calculated the outcome of each available pairwise comparison between generic instruments; that is, the comparison of the correlation between generic instrument *A* and disease-specific instrument *x* with the correlation between generic instrument *B* and disease-specific instrument *x*, for each pair of generic instruments and each disease-specific instrument. Our primary outcome was the simple comparison of correlation coefficients between each pair of generic instruments: the number of times each instrument outperformed the other.

Lessons Learned

The AQoL-8D was the best-performing instrument overall, with the higher correlation in the majority of comparisons with all other generic instruments. The SF-6D and 15D also performed well, with the stronger correlation in the majority of pairwise comparisons with all other instruments. The QWB, EQ-5D-3L, EQ-5D-5L, and HUI3 had weaker levels of agreement with disease-specific instruments.

Implications

The AQoL-8D, SF-6D, and 15D HRQoL instruments have strong convergent validity with disease-specific instruments across a range of health conditions. The QWB, EQ-5D-3L, EQ-5D-5L, and HUI3 have weaker convergent validity and may be less able to pick up important changes in patient health.

A theory of change for equitable access to medicines in Aotearoa New Zealand

Sandy Bhawan and Catherine Proffitt

PHARMAC Te Pātaka Whaioranga (Pharmaceutical Management Agency, New Zealand)

Objectives

Delivering equitable health outcomes for all New Zealanders is a Government priority. However, research shows New Zealand's Māori (indigenous) population are continuing to receive medicines in the community at a lower rate than non-Māori, despite their health need being higher – contributing to greater inequities in health. Other population groups also experience reduced access to medicines, including Pacific peoples and those in socially deprived and rural areas. PHARMAC has developed a working theory of where system, policy and process changes may be required in relation to equitable access to medicines.

Methods

The theory of change has been developed as an input to policy and programme design, drawing on the published and grey literature, clinical experience and expertise and mātauranga (knowledge) from Māori communities and clinicians.

Lessons Learned

PHARMAC's theory of change identifies five primary drivers that facilitate medicine access; availability, accessibility, affordability, acceptability and appropriateness. Each of these primary drivers has several related secondary (or contributing) drivers and PHARMAC has different levels of impact on these drivers. This approach is helping us to shape and inform ideas for change, as well as to identify key outcomes for monitoring.

Implications

PHARMAC has a role to play in ensuring its funding decisions do not inadvertently create barriers to accessing medicines for population groups already experiencing health inequities. However, the wider changes needed span the medicines policy, practice and regulatory areas, within the health sector and beyond.

What do consumers think of their advanced practitioner? Evaluating nurse practitioner and pharmacist prescriber roles in New Zealand

Tara Officer¹, Karen McBride-Henry², Jackie Cumming¹

¹Health Services Research Centre, Victoria University of Wellington

²School of Nursing, Midwifery, and Health Practice, Victoria University of Wellington

Objective

Consumer satisfaction with the services provided by a variety of health professionals has received considerable attention internationally. Consumer perception of the services these health professionals provide has had considerably less attention. This paper reports on consumer perceptions of advanced practitioner (nurse practitioner and pharmacist prescriber) services in New Zealand primary health care.

Methods

This research formed part of a large evaluation of the development of nurse practitioner and pharmacist prescriber roles. A realist evaluation approach guided the project's data gathering and analysis. For this component, semi-structured, in-depth interviews with 21 consumers were undertaken. Consumers received services from either a nurse practitioner or pharmacist prescriber and resided in different parts of New Zealand.

Lessons Learned

This research informs those interested in patient centred care by reflecting earlier research that suggests consumers feel confidence in themselves and their health care providers when receiving these services. Additionally, consumers recognised a difference between services offered by these advanced practitioners and other providers. Consumers also placed these providers within a traditional hierarchy of practice, but often failed to recognise why these providers differed from others providing health services.

Implications

Part of ensuring the success of any new advanced practitioner service is facilitating consumer education so that they can make informed decisions around using available resources. General practices must support consumer-centred implementation of advanced practitioner roles through

Eliciting Community and Health Professionals' Preferences for Values That Should Underpin Policies for the Allocation of Kidneys from Deceased Donors: A National Best-Worst Scaling Survey

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¹Sydney School of Public Health, University of Sydney, Sydney, NSW, Australia, ²Centre for Kidney Research, The Children's Hospital at Westmead, Sydney, NSW, Australia, ³Centre for Transplant and Renal Research, Westmead Hospital, Sydney, NSW, ⁴Australia and New Zealand Dialysis and Transplant Registry, SA Health and Medical Research Institute, SA, ⁵Central and Northern Adelaide Renal and Transplantation Service and Department of Medicine, University of Adelaide, Royal Adelaide Hospital, SA

Objectives:

The number of people who would benefit from a kidney transplant far exceeds available organs. Organ allocation policies must make the most of this scarce resource and maintain equity. This study elicited community and health professional preferences for principles underpinning deceased donor organ allocation.

Method: A best-worst scaling survey of 29 principles was used to elicit preferences from a representative sample of the Australian community and transplant health professionals. Preference scores were estimated by multinomial logit regression and scaled from 0 to 1.

Lessons learned: In all 1082 from the community and 208 transplant health professionals completed the survey. The five most valued principles for the community were length of time on the wait-list (1.0 [0.94, 1.06]), socially disadvantaged equity (0.99 [0.93, 1.05]), priority to the sickest (0.96 [0.90, 1.02]), gender equity (0.96 [0.90, 1.02]), and compatibility (0.93 [0.87, 0.99]). For health professionals they were preferential allocation of kidneys with best predicted survival to individuals with best predicted survival (1.0 [0.90, 1.10]) and the young (0.92 [0.82, 1.02]), maximise survival (0.95 [0.85, 1.05]), minimise wait-time (0.91 [0.81, 1.02]) and compatibility (0.88 [0.78, 0.98]). The largest differences in preference scores between the community and health professionals was to preferentially allocate to the sickest or with the poorest quality of life (mean differences 0.42 and 0.31 respectively).

Implications: Community strongly favour equity and need, while health professionals favour maximising survival (utility). These differences have important implications for policies guiding the allocation of deceased donor organs in particular finding the balance between efficiency, need and equity.

Cost-utility analysis of pharmacist-led medication review in primary care patients with hypertension, type 2 diabetes mellitus and dyslipidaemia

Antonio Ahumada- Canale¹, Francisco J. Martinez- Mardones¹, José Cristian Plaza- Plaza², Shalom Benrimoj³, and Victoria Garcia- Cardenas¹

¹University of Technology Sydney, ²Pontificia Universidad Católica de Chile, ³University of Granada

Objectives

To evaluate the cost-utility of pharmacist-led medication review with follow-up in patients with hypertension, type 2 diabetes mellitus and dyslipidaemia in Chilean primary care health centres.

Methods

A cost-utility analysis will be carried out based on the Polaris cluster randomized controlled trial; 460 patients in 24 health centres (12 centres and 230 patients per arm) were recruited. Pharmacist performed medication review with follow-up every 4 months. Inclusion criteria were patients 65 years or older, that were prescribed at least five medications and were enrolled in a national cardiovascular prevention program. The public health sector perspective will be used, the comparator will be usual care, time horizon will be one year and, QALY will be calculated with data from the EQ5D test. Resources evaluated are pharmacists', GPs' and other professionals' time, medications, laboratory tests, hospitalizations, emergency visits and specialists' time. National price weights will be used. The Incremental cost-effectiveness ratio will be calculated. To evaluate uncertainty a non-parametric bootstrap will be carried out with 5000 resamples. Each resample will be graphed in the cost-effectiveness plane and represented in an acceptability curve.

Lessons learned

We will learn if this intervention is cost-effective from the public health sector perspective against usual care taking into account the uncertainty around its values.

Implications

The Chilean government is spending 25% of the health budget in cardiovascular diseases and it is currently evaluating strategies to address them. These results are intended to inform decision-makers with an evidence-based approach to control cardiovascular risk factors.

Developments in registry science

Symposium Lead: Professor John McNeil, Monash University School of Public Health and Preventive Medicine

Rationale for Symposium: clinical quality registries are being established for many high priority medical conditions. They provide an opportunity to benchmark performance and improve patient safety in a manner that is highly credible for clinicians and policy makers. This symposium will discuss the technical challenges in interpreting registry data at a time when such information is becoming increasingly available to administrators and clinical governance committees

Topic description This symposium will present examples of health service research that involves benchmarking performance, measuring access to and appropriateness of care, and monitoring the safety of drugs and devices. It will explore the particular advantages of clinical registries in terms of the credibility of the data that they provide, particularly when extended across a population. Challenges of cost, data burden, risk adjustment, governance and approaches to outliers will be discussed and possibilities for addressing them will be discussed. The latter include the expansion of routinely collected and coded minimum datasets, automated outcome assessment and real-time feedback of data. Finally the symposium will examine the latest developments in registry policy at a government level in both Australia and New Zealand. This symposium will highlight some of the most advanced registries in operation in both Australia and New Zealand and explore opportunities for international leadership in registry science.

Presentation one

Registry science: an update on opportunities and challenges

Overview: Clinical quality registries provide a valuable strategy for measuring and benchmarking outcomes of treatment applicable to the high-cost high-significance treatments. They provide hospitals and clinicians with feedback about their performance in a way that is not provided by most other strategies and will increasingly underpin high quality clinical and health services research. Despite their value some key developments will be necessary before registries reach their optimum potential. This presentation will provide an overview of existing registries in Australia & NZ and describe their successes and the challenges ahead including data burden, outcome assessment, risk adjustment and funding models.

Presentation two:

Performance Outliers: their identification and management

Professor Susan Evans, Monash University School of Public Health and Preventive Medicine

Overview: The feedback of performance data to clinicians is designed to stimulate competition, identify variation and provide early warning if performance begins to deteriorate. Typically, such feedback is provided via funnel plots and 'outlier status' is designated if the performance on a key variable is more than three standard deviations from the mean. The purpose of this presentation is to discuss approaches by the registry when such an event occurs. Questions such as thresholds for concern, the responsibility of the registry, and the legal responsibilities of various parties arise. Issues of qualified privilege and its relationship to registry reporting also arise.

Presentation three:

Statistical issues in registry data analysis

A/Professor Arul Ernst, Monash University School of Public Health and Preventive Medicine

Overview: Systematic measurement of clinical outcomes is a fundamental to most registries. It is important that outcome measures are “risk adjusted” to account for factors influencing the outcome that are beyond the control of clinicians. Choosing prognostic variables to adjust for may be difficult because some are partly under the control of clinicians and those that are available may not have been subject to precise measurement. These imprecisions in risk adjustment must be taken into account when reporting the results of benchmarking. This presentation will describe current approaches to risk adjustment and their strengths, limitations and pitfalls

Does continuity of primary care reduce potentially preventable hospital admissions?

Symposium Lead: A/Prof Rachael Moorin, Curtin University

Rationale for Symposium: This symposium will showcase work undertaken as part of a NHMRC funded project grant that used data from the 45 and Up Study to evaluate the influence of patterns of primary care contact on potentially preventable hospitalisations. The symposium will be chaired by Professor Suzanne Robinson from Curtin University.

Topic description

At a time of increasing pressure on our public hospital system, it is of major concern that a considerable number of admissions to hospitals and emergency department presentations are potentially preventable. These health care contacts represent significant cost to the Australian health system, which has finite resources to devote to ever increasing and varied demands. One approach to reduce this unsustainable demand has been to shift service delivery from the acute to the primary health care sector. For chronic conditions such as diabetes it is thought that a shift in focus can delay or prevent the onset of complications and reduce potentially preventable hospitalisations. This has been the driver of many policies aimed at increasing regular contact with a GP. Currently there is limited information regarding patterns of accessing primary care (eg frequency, regularity or continuity of provider) and to what degree they translate into better health outcomes. We will present four related pieces of work beginning with an analysis of different dimensions of continuity, their interactions and impact on hospitalisation. This will be followed by two examples of work using our modified regularity index that corrects for the correlation with frequency of GP contact. The symposium will conclude with an overview of work undertaken recently by one of our recently completed PhD students in developing a new measure of continuity that incorporates a time-limited protective effect provided by contact with a GP. We will conclude with a consideration of the implications of our study to research, policy and practice.

Presentation one

Does regularity of general practitioner contact substitute for or complement ongoing contacts with the same provider? A study using linked self-report and administrative data.

Presenter: David Youens

David Youens¹, Rachael Moorin^{1,2}, Suzanne Robinson¹, Mark Harris³.

1. Health Systems and Health Economics, School of Public Health, Faculty of Health Sciences, Curtin University, Perth, Western Australia, Australia
2. School of Population and Global Health, Faculty of Health and Medical Sciences, University of Western Australia, Perth, Western Australia, Australia
3. School of Economics, Finance and Property, Curtin University, Perth, Western Australia, Australia

Overview:

Many studies assess provider continuity, i.e., whether patients consistently visit the same GP, and associations with outcomes. We have previously assessed regularity of GP contact, with regularly dispersed visits over time thought to indicate proactive care. This work compares these two measures and assesses their contributions to hospital and emergency department use. We will present

correlations with patient characteristics and interactions in their associations with health outcomes, to understand their relative importance in promoting health. Policy relevance is in informing how different primary care patterns influence health, and will inform aspects of care useful to measure in primary care research.

Presentation two

Continuity of provider-adjusted association between regularity of general practitioner contact and diabetes-related hospitalisation: A data linkage study combining survey and administrative data.

Presenter: Rachael Moorin

Rachael E Moorin^{1,2}, David Youens¹, David B Preen², Mark Harris³, Cameron M Wright^{1,4}.

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3. School of Economics, Finance and Property, Curtin Business School, Curtin University, Perth, Western Australia, Australia.
4. School of Medicine, College of Health & Medicine, University of Tasmania, Hobart, Tasmania, Australia.

Overview:

Regularity refers not to the number of GP visits, but rather measures the dispersion of GP visits over time, with more even dispersion indicating better regularity. A limitation of previous work has been the inability to adjust for continuity of provider. No attempt at disentangling the impact of regularity from that of provider continuity has been reported to date. Whether increased regularity is actually a proxy for, or a consequence of, increasing continuity of provider is unknown. This study assessed the continuity of provider-adjusted association between regularity of GP contact and unplanned diabetes-related hospitalisations and emergency department (ED) presentations.

Presentation three

Higher regularity of primary physician contact is associated with lower 'high use' hospitalisation and readmission

Presenter: Cameron Wright

Rachael E Moorin^{1,2}, David Youens¹, David B Preen², Mark Harris³, Cameron M Wright^{1,4}.

1. Health Systems and Health Economics, School of Public Health, Faculty of Health Sciences, Curtin University, Perth, Western Australia, Australia.
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3. School of Economics, Finance and Property, Curtin Business School, Curtin University, Perth, Western Australia, Australia.
4. School of Medicine, College of Health & Medicine, University of Tasmania, Hobart, Tasmania, Australia

Overview:

If improvements in primary care can yield lower use of hospital services, this would improve productive efficiency. This is especially important among 'high-cost, high-user patients', the small proportion of patients who account for a disproportionately high proportion of hospitalisation costs. Among a cohort

of people with diabetes, higher regularity (adjusted for continuity of provider and frequency of contact) showed an association with lower costs for unplanned hospitalisation. Given recent interest in 'high users', this study aimed to answer the question: Is regularity of GP-provided primary care associated with reductions in 'high use' of hospital services and 30-day hospital readmissions?

Presentation four

Incorporating a time duration protective effect into regularity of GP contacts among people with diabetes in the 45 and up study population

Ninh Ha¹, Mark Harris³, David B Preen², Rachael E Moorin^{1,2}

1. Health Systems and Health Economics, School of Public Health, Faculty of Health Sciences, Curtin University, Perth, Western Australia, Australia.
2. School of Population and Global Health, Faculty of Health and Medical Sciences, University of Western Australia, Perth, Western Australia, Australia.
3. School of Economics, Finance and Property, Curtin Business School, Curtin University, Perth, Western Australia, Australia.

Presenter: Ninh Ha

Overview:

Sufficient provision of primary health care is essential to prevent hospitalisation and improve health outcomes. Although regularity of GP contact is considered as a suitable target for health policy intervention, it might not fully capture sufficient provision of primary health care. We hypothesise that a GP contact within an optimal time interval may potentially have a protective effect against the risk of hospitalisation for people with chronic conditions. This study aims to estimate the optimal time interval and integrate it into regularity measure to capture proportion of time that people with diabetes are under sufficient cover of primary health care.

Trading between quality of life and survival when choosing cancer treatment: A discrete choice experiment.

Alison Pearce^{1,2}, Deborah Street², Deme Karikios^{3,4}, and Rosalie Viney²

¹School of Public Health, University of Sydney, ²Centre for Health Economics Research and Evaluation, University of Technology Sydney, ³Nepean Cancer Care Centre, ⁴Nepean Clinical School, University of Sydney

Objectives

Clinicians and patients with cancer are increasingly faced with making trade-offs between the possible small benefits of new treatments and potential side effects that reduce quality of life. Our research aimed to determine what and how people trade-off between quality of life and survival when choosing an approach to cancer treatment.

Methods

A discrete choice experiment (DCE) was conducted with an online panel sample of 300 adults with a previous diagnosis of cancer. Attributes included treatment duration and efficacy, side effect duration, and quality of life characteristics based on the QLU-C10D, a cancer-specific utility instrument. Each participant completed 16 choice sets. We used mixed logit models to analyse preferences and heterogeneity of preferences for each attribute.

Lessons learned

The sample was older and reported poorer health than the general population. Melanoma, prostate and breast were the most commonly reported cancers. Additional survival was associated with a significant increase in the chance of a treatment being selected ($p < 0.01$), and most side effects needed to be severe to influence treatment selection. There was heterogeneity in all attributes, but pain, reduced mobility and nausea were the side effects participants were most willing to trade survival to avoid (willing to trade 11, 16 and 10 weeks respectively).

Implications

People with cancer are reluctant to trade survival for quality of life, although the type and severity of side effects influences their choice. Heterogeneity of preferences highlights the importance of patient-centred decision making about approaches to and goals of cancer treatment.

Preferences for anxiety and depression screening in cancer care - A discrete choice experiment

Jackie Yim¹, Sheena Arora¹, Joanne Shaw², Deborah Street¹, Alison Pearce³, and Rosalie Viney¹

¹ Centre for Health Economics Research and Evaluation, University of Technology Sydney

² Psycho-Oncology Co-operative Research Group, School of Psychology, The University of Sydney

³ Faculty of Medicine and Health, School of Public Health, The University of Sydney

Objectives

One in five cancer patients will experience anxiety and depression (A&D). A&D in cancer patients are associated with poorer QoL, reduced treatment adherence and longer hospitalisations. A&D are often undetected and underestimated in busy cancer services. At present, few cancer services routinely screen patients for A&D. For successful implementation of such screening, understanding barriers to patient participation in screening is critical to ensure treatment acceptability and greater patient satisfaction. In this study, we use a discrete choice experiment (DCE) to elicit patient preferences for characteristics of A&D screening programs in cancer care.

Methods

A DCE was designed to elicit preferences from a panel of self-identified cancer patients. Attributes and levels were developed through a literature review, consultation with academic and clinical experts and cognitive interviews with cancer patients. A Street & Burgess generator developed design was used. The design was blocked and each respondent received 16 choice tasks, each with two options. Participant preferences were estimated using a conditional logit model.

Lessons learned

Eight attributes were identified. Development of the vignette, attributes and levels must include cognitive interviews to ensure correct respondent interpretation and comprehension. Results provide information about the relative importance of various aspects of A&D screening for cancer survivors, as well as recommendations for screening program design to maximise participant uptake.

Implications

Our findings contribute to an area of limited evidence and can be used to design evidence-based, yet patient-centred screening services for cancer patients. By doing so, there is potential to improve clinical service delivery and overall health service efficiency.

Impact of ethnicity, socio-economic deprivation and treatments on the survival of patients with multiple myeloma in New Zealand: results from linked national healthcare databases.

Richard J. Milne¹ & Henry SH Chan²

1 School of Pharmacy, The University of Auckland, 2 Waitemata District Health Board, Auckland

Objectives. To determine the impact of ethnicity, socio-economic deprivation and novel treatments on the survival of individuals with multiple myeloma.

Methods. New Zealand Cancer Register entries for 3992 patients diagnosed in 2004-2016 were linked by National Health Index to hospital admissions, mortality and dispensing data. Overall survival (OS) was determined using Kaplan-Meier analysis. Cox regression analysis was used to determine independent prognostic factors.

Lessons learned. Median OS increased from 34.8 months in 2004–2007 to 50.7 months in 2012–2016. Five-year OS for patients diagnosed in 2012 to 2016 was 45% and median survival was 51.2 months. OS was worse for younger Māori/Pasifika peoples (≤ 70 y) than for other ethnicities although cause specific survival CSS was similar. Five-year survival was worse for individuals living in the most deprived regions of the country than others (NZDep2013 deciles 9/10; 40% vs 50%). After public funding of bortezomib in May 2011, the median OS for individuals >70 years increased from 19.4 to 28.6 months. For those ≤ 70 years of age who did not have ASCT, median OS increased from 49.1 to 62.7 months; but for those ≤ 70 who had ASCT, there was no improvement in median OS. Age and socio-economic deprivation, but not ethnicity, were independent adverse prognostic factors.

Implications. (1) Linked databases can be used to study the impact of prognostic factors including treatments on overall survival. (2) Survival has improved over time, but it is worse for individuals with Māori/Pasifika ethnicity and/or socio-economic deprivation compared to others.

Timeliness of Treatment for Different Cancer Types in New Zealand

Rob McNeill¹ Simona D'Silva¹

¹University of Auckland

Objectives

Timeliness of care has been shown to vary substantially between different cancer types. This research aimed to identify inequalities in the timeliness of treatment for patients referred urgently with a high suspicion of cancer within and between different cancer types.

Methods

This retrospective longitudinal study analysed the time from referral to first treatment for 13,795 patients referred across the whole of New Zealand from 2015-17. The outcome variables were the number of days to first treatment and the percentage of patients receiving their first treatment within 62 days. Negative binomial and binary logistic regression models were used to identify differences in timeliness between all cancer types, and other demographic inequalities within a subset of the most common or least timely cancer types.

Lessons learned

Patients with gynaecological, head and neck, lower gastrointestinal and lung cancer had the longest times to first treatment; with breast, haematological, brain/CNS and skin cancer having the shortest times. Cancer types with the longest waiting times tended to have the greatest demographic inequalities in timeliness.

Implications

The large differences in timeliness of treatment for different cancer types are partly due to the nature of the cancers, but also relate to patient, service and system level factors that are amenable to change. It also seems clear that when we invest in initiatives to improve the timeliness of care, as has been done extensively with breast cancer, we also see less inequality in timeliness.

Inequalities in the Timeliness of Treatment of Cancer Patients in New Zealand

Simona D'Silva¹ Rob McNeill¹

¹University of Auckland

Objectives

Timeliness is a key component of quality cancer services. Previous research has identified inequalities in outcomes for cancer patients in New Zealand, with timeliness being a key factor. In 2014 the government introduced a 62-day indicator for patients referred urgently with a high suspicion of cancer. This research aimed to quantify inequalities in timeliness for these patients.

Methods

This retrospective longitudinal study used nationwide data from 13,795 patients referred urgently from 2015-17. The outcome variables were the number of days from referral to diagnosis and the percentage of patients receiving their first treatment within 62-days. Negative binomial regression and binary logistic regression models were used to identify significant inequalities in days to diagnosis and 62-day compliance respectively.

Lessons learned

Patients aged 50-79, of Maori or Pacific ethnicity, living in areas of the high socioeconomic deprivation, or with less access to local services, had poorer timeliness of treatment. There were also numerous inequalities between cancer types and those referred in 2015 had longer times to treatment compared to those in 2016-17.

Implications

This study has revealed a large number of concerning, although not surprising, inequalities in the timeliness of cancer treatment in New Zealand. Generally, those patients who came from the most under-resourced and disadvantaged groups in society faced the longest delays in treatment. This has potential implications for survival but also for their quality of life and experience of the health system. Patient, service and system level interventions are needed to reduce these inequalities.

Can analysis of the effect of social disadvantage on access to healthcare be improved through the use of causal pathways?

Rachael L Morton¹

Lauren Caleo¹

¹NHMRC Clinical Trials Centre, Faculty of Medicine and Health, The University of Sydney, Australia

Objective: Identification of social gradients is necessary for the development of efficient public health strategies to address health system inequities. However isolating the effect of social disadvantage from other confounding factors is not straightforward, and may result in missed or misleading effects. The aim of this study was to describe a method of analysis using causal pathways that may reduce bias in the estimation of factors of social disadvantage; and develop a checklist to guide researchers.

Methods: Within the context of chronic kidney disease, a condition that disproportionately affects minorities, we conducted a systematic review reporting access to healthcare by one or more factors of social disadvantage. Causal pathways assessed whether reported estimates from multivariable regression models were unbiased estimates of the total effect of these factors. Results were synthesised according to the suitability of analysis and presence of a social gradient.

Lesson learned: We identified 8 studies that reported access to healthcare in kidney disease (including anti-hypertensive medicines, cardiac procedures, specialist doctors, and dialysis) by the following factors disadvantage: low health insurance, home ownership, minority ethnicity, educational attainment or occupation. Many studies over-adjusted for risk factors and comorbidities likely to be on the causal pathway of disadvantage.

Implications: Consideration of causal pathways may provide an improvement to the traditional framework for developing and assessing multivariable models. From our review in kidney disease, the suitability of the analyses for exploring and finding effects of social disadvantage was generally low and could be improved. The resulting checklist can be broadly applied.

Creating Synergies for Effective Co-Produced Research: A Realist Review

Kothari, A¹, McCutcheon, C² and Graham, I^{2,3}, Steinwender, S⁴, Sibbald, S¹, Gagliardi, A⁵, Urquart, R⁶, Horsley, T⁷, Berta, W⁸.

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⁷Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada

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Objectives

Co-produced research is an approach that involves researchers collaborating intensively with practitioners, administrators, patients or policymakers through the entirety of a project. We conducted a realist review to determine which research co-production strategies work, how, for whom and in what circumstances. Objectives for the presentation:

- 1) To share lessons learned from the realist review
- 2) To discuss the applicability of our program theory across different user groups
- 3) To generate ideas for how funders and organizations can use the program theory

Method

Synthesizing the research co-production literature using a realist review approach meant identifying the mechanisms of action that linked context and outcomes using diverse evidence. The standard realist review approach was used (defining scope of review, developing initial program theory, searching for evidence, selecting and appraising articles, extracting and synthesizing findings, and refining the program theory). Outcomes were 1) research use, and 2) generation of relevant research.

Lessons Learned

This realist review identified the different conditions (infrastructure, previous relationships, power sharing, role clarity) under which research co-production operates. We offer a realist program theory of effective strategies based on relevant context-mechanism-outcome configurations. Key was the finding that effective partnerships were not sufficient for the use of research findings – partnership synergy was a necessary mechanism for use.

Implications

We have generated insights about how to support IKT strategies such that relevant research can be implemented in healthcare decision-making.

The role of radio in health research: A scoping Review

Hailey Hildebrand¹, Dr Moneca Sinclair², Dr. Annette Schultz², Janice Linton¹

¹ University of Manitoba, Max Rady College of Medicine, Rady Faculty of Health Sciences, ² University of Manitoba, College of Nursing, Rady Faculty of Health Sciences

Objective – To determine how radio has been used in health research as a vehicle of orality, voice, and storytelling to distribute health messages.

Methods – A scoping review informed by Arskey and O'Malley's approach was carried out using Scopus, Google Scholar, Ovid Embase, Ovid Medline, Ovid Global Health, and EBSCO host.

Lessons Learned – Search results produced 1714 records, and after a two-step selection process 11 articles were eligible for inclusion. Of the 11 articles, 73% were from rural or isolated regions. The two formats used to deliver health messages via radio were public service announcements (PSA) and dramatic narratives (DN). A link was found between having a female target audience and using a DN radio format. Of the 11 articles only one noted the use of voice in creating an effective radio message. There is sparse literature available regarding radio as a tool for the transmission of health information and as a vehicle of orality, voice, and storytelling.

Implications – Further research is required since there is sparse information available regarding radio as a tool for translating health research findings and messages. This provides an excellent opportunity for future developments of radio documentaries which can begin to fill this gap in the literature.

Comparability of online out-of-pocket tools from Australian private health funds

Kelsey Chalmers¹, Adam G Elshaug¹, Shaun Larkin¹

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

Objectives

Privately insured patients face highly variable out-of-pocket (OOP) costs for inpatient admissions. Three of Australia's largest private health insurance (PHI) funds have therefore developed online OOP cost estimator tools for various procedures. We investigated how comparable these three online OOP cost tools were, and the implications this has for health care price transparency in Australia.

Methods

We used a web-scraping tool to extract the descriptions of the claims data used, the types of statistics provided, the out-of-pocket estimates, the total procedure cost, the MBS Items referenced and the assumptions the funds' described on their pages. We used descriptive statistics to compare the cost information.

Lessons Learned

These tools may provide some price transparency for members within PHI funds, but do not provide comparable information between funds. HCF stated the MBS items used to select the claims data for their estimates, while Bupa and Medibank only referred to common MBS items associated with the procedures. HCF had on average 1.44 more MBS items listed than Bupa and 2.08 more than Medibank. The funds grouped procedures differently. For example, HCF provided separate cost estimates for vaginal, abdominal and keyhole hysterectomy compared to Medibank's single estimate for a hysterectomy.

Implications

While PHI funds have made a step towards price transparency, publishing cost information that is too specific may be against their financial interest. A Ministerial Advisory Committee on OOP costs has recently recommended developing a government run website with individual surgeons' fees.

Are scenarios useful for understanding processes of change in the health sector?

Lesley Middleton¹, Malcolm Menzies¹

¹Health Services Research Centre, Victoria University of Wellington,

Objectives

Futures work seeks to help individuals and organisations better understand the processes of change so that wiser futures are created. A practical example is provided of the usefulness of five health scenarios developed in 1997 to lay out different possibilities for the New Zealand health sector in 2020.

Methods

Semi-structured interviews were held with five original participants who were well equipped to recall the state of play in 1997 and developments since. Using criteria developed to assess the value of scenarios, interviews explored to what degree were the “signals” from the future recognised, and what signals were missed altogether. Interviewees’ assessment of the underpinning drivers and values that shaped each scenario, were supplemented with a review of the relevant New Zealand literature on health system change.

Lessons Learned

Findings suggest that the process used to develop the 1997 scenarios was valuable in opening up decision-makers’ minds to possibilities without them needing to feel threatened or defensive, but it may not have been inclusive enough for the New Zealand context.

Implications

We are now almost in a future whose possibilities were being imagined those two decades ago. Future considerations of health futures should be clearer as to purpose, get more explicit buy-in of key decision-makers and draw on a more diverse range of inputs. We also suggest that rather than being carried out during a discrete time period, scenario development should be a continuous and constantly updated process.

Disruptive Innovations: Success stories from the Integrated Care Innovation Fund

Symposium Chair: Carly Dyer

Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, School of Public Health and Social Work, Faculty of Health, Queensland University of Technology, Brisbane, Australia

HSRAANZ Conference 2017 showcased the Queensland Government's Integrated Care Innovation Fund (ICIF), which supported 23 locally-led initiatives to provide services that 'better meet the needs of the patient'. These initiatives covered the state of Queensland, with a highly diverse geographic and social range of patients and environments.

This symposium will examine the outcomes of some of the most successful ICIF innovations that changed the way healthcare was provided. It will present several case studies illustrating how traditional care models can be redesigned to suit the needs of local, often underserved populations.

Presentation one:

Establishing novel connections between primary, secondary and tertiary care

Nicole White

Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, School of Public Health and Social Work, Faculty of Health, Queensland University of Technology, Brisbane, Australia

These innovations created new service models that connected providers from across the spectrum of care to reduce avoidable tertiary utilisation.

Case studies

- **Ageing in Place**
Ageing in Place was an innovative networking and collaboration model that connected residential aged care facilities with the emergency department via tele-medicine.
- **QCAT**
The Queensland Civil and Administrative Tribunal innovation created out-of-session hearings for patients with cognitive impairment to facilitate faster discharge from hospital and increase primary care coordination.
- **CHIC**
The Child Health Integrated Care project created a central referral and triage pathway for children with developmental and behavioural issues. It supported carers trying to access children's services, improving referral quality and wait time for low cost.

Presentation three:

Breaching silos with multi-disciplinary teams

Hannah Carter

Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, School of Public Health and Social Work, Faculty of Health, Queensland University of Technology, Brisbane, Australia

This presentation discusses how multi-disciplinary integrated services, co-location, and joint planning can be associated with positive clinical and non-clinical outcomes.

Case studies

- **Floresco**
The Floresco project created a consortium of co-located health providers and social agencies to deliver a range of community services for patients from a variety of backgrounds seeking mental health care.
- **Open Arch**
Open Arch implemented a multi-disciplinary case-conference model with a specialist geriatrician, nurse enablement officers and GPs, working out of local GP practices, to achieve lower hospital

dependence and better patient outcomes for pre-frail and frail elderly Australians.

Presentation four:

Spreading care in the community, not the virus

David Brain

*Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation,
School of Public Health and Social Work, Faculty of Health, Queensland University of Technology,
Brisbane, Australia*

This presentation will showcase how a simple change to patient-centred service provision can have significant positive outcomes for the diagnosis, management and treatment of Hepatitis C virus (HCV).

Case study

- **Regional Hepatology Partnership**

The Regional Hepatology Partnership improved access to successful HCV treatment for a vulnerable patient cohort through nurse-led community clinics rather than through specialist-led hospital outpatient clinics.

Mana Tū: A whānau ora approach to long term conditions

Matire Harwood¹, Tereki Stewart², Peter Carswell¹, Taria Tane²

¹University of Auckland, ²National Hauora Coalition

Objectives

Type 2 Diabetes Mellitus (T2DM) is a significant long-term condition that disproportionately affects Māori, Pacific and those living in high socio-economic deprivation. Mana Tū aims to improve both health and social outcomes through an equity based approach to supporting these communities to live well with a long term condition.

Methods

Mana Tū deploys skilled and supported Kaimanaaki-Whānau (KM) in General Practice teams. The KM use an equity based approach in engaging with patients and their whānau to improve both health and social outcomes. The mobile KM work with patients and their whānau to; 1. Support patient-led health and social goals or aspirations; 2. Coordinates health and social support or care, with a focus on the wider-determinants of health (e.g., housing, finance, and work); and 3. Walks alongside the patient and whānau in their journey to live well.

Lessons Learned

Through the implementation of the Mana Tū programme we have learned that Mana Tū; 1. Reduces diabetes risk markers (HbA1c, lipids, blood pressure, smoking) pre vs. post intervention; 2. Has improved health and social outcomes of patients and their families; and 3. Achieves high programme satisfaction amongst patients and clinicians.

Implications

Mana Tū will transform primary care and lead to the development of a successful and innovative model of diabetes control with associated improvements in patient outcomes and downstream healthcare costs.

Is Assisted Peritoneal dialysis a solution for northern Manitoba?

Josée G. Lavoie¹, James Zacharias¹, Joseph Kaufert¹, Nicholas Krueger¹, Kathi Avery Kinew², Lorraine McLeod², Caroline Chartrand²

¹ University of Manitoba, ² First Nations Health and Social Secretariat of Manitoba

Objective

End-stage kidney disease continues to fundamentally impact the lives of First Nations patients. Home peritoneal dialysis offers patients more mobility and flexibility, but few Manitoba First Nations have availed themselves of this option. This presentation discusses Manitoba First Nations' experience of peritoneal dialysis, to highlight enablers and barriers to expanding the use of peritoneal dialysis in rural and remote Manitoba communities.

Methods

This paper draws on a subset of interviews from a larger study focused on the challenges associated with First Nations peoples relocating for medical reasons, conducted in partnership with *the First Nations Health and Social Secretariat of Manitoba* and four First Nations communities. The main reason for relocation was to access kidney care. Our kidney care dataset included in-depth, open-ended interviews with 29 patients or family caregivers (19 women and 10 men), and 26 healthcare providers and program managers. We used the kidney care dataset to contextualize findings from a smaller dataset (20 interviews) focused on peritoneal dialysis.

Lessons Learned

Barriers to peritoneal dialysis uptake include medical suitability, patients' distrust of home modalities and fear in their ability to manage. Other factors include limited family support, and lack of appropriate housing.

Implications

Assisted peritoneal dialysis is an emerging model where peritoneal dialysis supplies are centrally located, and where a cohort of peritoneal dialysis patients can provide mutual support with added assistance from an assisted peritoneal dialysis worker. This model could mitigate existing treatment barriers.

Quality and targeting of diabetic retinopathy referrals: An audit of patient records at a public hospital ophthalmology service in Western Sydney, Australia

Belinda Ford^{1,2}, Lisa Keay^{2,3}, Blake Angell², Gerald Liew^{1,4}, Andrew White^{1,2,4}

¹Westmead Hospital Ophthalmology Department, WSLHD

²The George Inst for Global Health, UNSW Sydney

³School of Optometry and Vision Science, UNSW Sydney

⁴Westmead Institute for Medical Research, University of Sydney

Objective

Diabetic patients require retinopathy screening by optometrists or general practitioners every 2-years depending on their risk level. It's recommended that patients with at least moderate non-proliferative diabetic retinopathy (NPDR) be referred to an ophthalmologist, however, poorly targeted referrals to public ophthalmology departments are leading to access blocks for patients needing treatment. We assessed the completeness and targeting of diabetic referrals to a large public ophthalmology service.

Methods

A cross-sectional audit of medical records was carried out for new patients at Westmead Eye Clinic in 2016 to determine the completeness of medical and ophthalmic information in referrals and subsequent patient diagnosis and management.

Lessons Learned

In 2016, 144 diabetes referrals were received, of which 7% were declined, and 13% transferred to a private ophthalmologist (bulk-billed) for Anti-VEGF treatment which is unavailable at the hospital. Information was incomplete for diabetes (>60%), medical (>50%) and ophthalmic (>70%) indicators, including visual acuity (>60%). GPs (42% of referrals) better recorded medical, and optometrists (37%) ophthalmic information. Imaging was rarely included (retinal photos <1%; OCT <3%). Median appointment waiting time was 124 days (n=116) and 78% attended. Only 11% of patients received treatment (laser) in this or the following encounter (48% were diagnosed with No/Mild NPDR and 10% transferred for Anti-VEGF treatment).

Implications

The quality and targeting of diabetic retinopathy referrals to public hospitals needs improvement. Education, feedback, and collaborative care mechanisms should be considered to improve referral and screening in primary care. Access to Anti-VEGF treatments in NSW public hospitals should be considered.

Understanding barriers and facilitators to engagement in a multi-disciplinary service for childhood obesity

Cervantée EK Wild,^{*1} Ngauru Rawiri, Paul L Hofman,^{1,7} Esther J Willing,⁴ Donna M Cormack,^{5,6} Yvonne C Anderson,^{1,2}.

¹ Liggins Institute, University of Auckland

² Department of Paediatrics, Taranaki District Health Board, New Plymouth

³ Section of Epidemiology and Biostatistics, University of Auckland, Auckland

⁴ Kōhatu – Centre for Hauora Māori, University of Otago, Dunedin

⁵ Te Kupenga Hauora Māori, University of Auckland, Auckland

⁶ Te Rōpū Rangahau Hauora a Eru Pōmare, University of Otago, Wellington

⁷ Starship Children's Hospital, Auckland District Health Board, Auckland

Objectives

Engagement and retention in paediatric obesity intervention services is challenging. Inequities in outcomes for Indigenous groups are concerning. This study aimed to understand the barriers and facilitators to engagement in a family-based healthy lifestyles programme in Taranaki, NZ. The programme was effective at 12 months, with improvements in cardiovascular fitness and health-related quality of life, and improvements in BMI SDS if participants attend $\geq 70\%$ of intervention sessions.

Methods

64 semi-structured interviews were undertaken with past participants of the Whānau Pakari service, with equal numbers of Māori and non-Māori. Participants included those who attended $\geq 70\%$ of programme sessions, those who attended $< 30\%$, those who had one assessment and then discontinued, and those who declined input altogether.

Lessons learned

Thematic analysis identified four interactive and compounding domains as influencing engagement in Whānau Pakari: acute and chronic life stressors, societal norms of weight and body size, historical experiences of healthcare, and respectful, compassionate care. Inequities between Māori and non-Māori participants were due to differences in life stressors and deprivation, and increased weight stigma and racism within the health system.

Implications

Families deal with multiple complex stressors at once, which impact on their ability to access healthy lifestyle services, along with prevailing weight norms. A negative referral to Whānau Pakari can set participants up to decline further input or disengage from the service or wider health system. However, respectful, compassionate care can mitigate past negative experiences in the health system and facilitate continued engagement with and access to healthy lifestyle services.

Title: Patterns of diabetes prevalence and incidence in First Nations people in Ontario, Canada: Implications for health care delivery and organization

Jennifer D. Walker^{1,2}, Carmen Jones³, Baiju Shah¹, Shahriar Khan¹, Morgan Slater⁴, Eliot Frymire^{1,4}, Michael E. Green^{1,4}

¹ICES, ²School of Rural and Northern Health, Laurentian University, ³Chiefs of Ontario, ⁴Department of Family Medicine, Queens University,

Objective: Diabetes is an established health concern in First Nations communities and is associated with complex influences of colonization. In a partnership between First Nations and academic researchers, we described the prevalence, incidence and lifetime risk of diabetes in First Nations people in Ontario.

Methods: Using administrative health data we calculated annual crude, age-group specific and age-sex standardized diabetes prevalence, incidence and mortality rates (1995-2015) among First Nations people and other residents in Ontario. We estimated the lifetime prevalence of diabetes among First Nations people and other people in Ontario.

Lessons learned: The prevalence of diabetes is higher in First Nations people than in other people living in Ontario. The relative difference in prevalence between First Nations people and other people in Ontario was greatest at younger ages and among females. While mortality rates have decreased slightly for both groups between 1995 and 2014, all-cause mortality remains higher among First Nations people with diabetes. The lifetime risk of developing diabetes was significantly higher among First Nations people compared to other people in Ontario (57.0% vs 44.5%).

Implication: First Nations-led approaches to addressing the high prevalence of diabetes in younger First Nations women is an opportunity to develop health policies which address metabolic health across generations. It is important to consider wholistic approaches to preventing and managing diabetes that account for physical, spiritual, emotional and mental wellbeing while acknowledging the impact of trauma on diabetes.

Formatting

1. Abstracts must be structured with the following headings: Objective – Methods - Lessons Learned - Implications
2. Abstracts are limited to 250 words [excluding title, authors and institutional affiliations] and must be submitted in MS Word.doc format.
3. All margins are to be 2.5 cm.
4. One line space must be left between the abstract title, authors name(s) and affiliation(s).
5. The abstract title should be left justified on the page in bold and lower case in Arial 12-point font. No abbreviations are to be used in the title.
6. Authors names to be left justified under the title in the following format: First name, last (family) name e.g. Chris Smith (not Dr Chris Smith). The name of the presenting author(s) must be underlined. Authors names must be in Arial 10-point font and not bolded
7. Affiliated institution(s) are to be left justified. Institutional affiliations should be indicated with superscript numbers following the author name. Do not include state and country. Affiliations must be in Arial 10-point font and not bolded.
8. The abstract text must be in Arial 10-point font. Do not justify text.
9. Headings. Objective, Methods, Lessons Learned, Implications, must be in Arial 10-point font, lower case and bold. One line space must be left between the end of each section and the next heading.

The symptom monitoring with feedback trial (SWIFT): A novel registry-based cluster randomized controlled trial among Australian and New Zealand adults on kidney dialysis

Rachael L Morton¹, Suetonia Palmer², Andrew Salmon³, Paul N. Bennett⁴, Matthew D. Jose⁵, Kathryn Dansie⁶, Chris Brown¹, Liliana Laranjo⁷, Shilpa Jesudason⁸, Rajesh Raj⁹, Carmel M. Hawley¹⁰, David W. Johnson¹⁰, William (Bill) A. Handke¹¹, Rachael Walker¹², David Tipene-Leach¹², Allison Tong¹³, David C. Harris¹³, Robert J. Simes¹, Braden J. Manns¹⁴, Stephen P. McDonald^{5,7}

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Objective: People requiring kidney dialysis frequently experience symptoms of pain, fatigue, nausea, cramping, insomnia and depression that contribute to poor quality of life. However, mechanisms that feedback patient symptoms to clinicians are scarce in clinical practice. The aim of this study is to determine whether regular symptom monitoring with feedback to the renal team can improve health-related quality of life and overall survival among adults managed with kidney dialysis.

Methods: Using a registry-based cluster randomised trial design, the proposed trial will test the hypothesis that: 1) three-monthly symptom monitoring using the Integrated Palliative Care Outcome Scale – Renal (IPOS-Renal) tool, with feedback to clinicians, improves health-related quality of life [measured by the EuroQual (EQ-5D)], and cause-specific mortality compared with usual care; 2) patient-reported outcomes improve health inequalities among minorities on dialysis; and 3) electronic capture of patient-reported outcomes within a registry is cost-effective. A two-arm design of 160 clusters (~3072 individuals) has 90% power to detect a 7% clinically meaningful increase in health-related quality of life (primary endpoint). Qualitative methods will explore the health systems impact of patient-reported outcome assessment, with a focus on communication and care for minority groups.

Lessons learned: The findings from SWIFT may result in improved quality of life, lower symptom burden (both severity and number of symptoms) and improved communication, with the potential to change practice in dialysis care.

Implications: SWIFT provides a template for ongoing binational monitoring of patient-reported outcome measures, investigation of potential intervention-generated-inequities and infrastructure for clinical and economic evaluation of subsequent interventions.

THURSDAY 5 DECEMBER 2019

Concurrent sessions 6A – 6I

6A Indigenous Womens' HIV Services Symposium |

6A.1 14:55 | Women healing living the good life' Indigenous Women Defining and Directing a New Paradigm for HIV Health Policy and Services in Manitoba, Canada. Symposium Lead: Sharon Bruce, University of Manitoba, Canada. Presenters: Laverne Gervais, Ka Ni Kanichihk; Marissa Becker, Adina Lakser, Sharon Bruce, University of Manitoba Canada

6B Public Input in Health Prioritisation Symposium |

6B.1 14:55 | Prioritising health care - how to integrate differing public views. Symposium Lead: Professor Rachel Baker Glasgow Caledonian University, Scotland, UK. Presenters: Rachel Baker, Glasgow Caledonian University, UK; Paul Scuffham, Griffith University; Emily Tumilty, Tim Stokes, Robin Gauld University of Otago, New Zealand

6C Equity, Access and Outpatient Waiting Times Symposium |

6C.1 14:55 | Improving access and equity by reducing waiting time in community-based outpatient services: an evidence-based approach. Symposium Lead: Katherine Harding, Eastern Health / La Trobe University Australia. Presenters. David Snowdon, Nicholas Taylor, Annie Lewis, Eastern Health / La Trobe University Australia

6D Quality of Aged Care Symposium |

6D.1 14:55 | Leveraging electronic data sources to monitor the quality and outcomes of aged care services. Symposium Lead: Magdalena Raban, Macquarie University, Australia. Presenters: Magdalena Raban, Kimberly Lind, Amy Nguyen, Australian Institute of Health Innovation Macquarie University Australia

6E Designing Childhood Obesity Research Symposium |

6E.1 14:55 | Influencing systems change to tackle childhood obesity: implementing a co-designed and culturally-tailored research program. Symposium Lead: Jessica Hardt. Presenters: Jessica Hardt, Brent Matautia, Children's Health Queensland Hospital and Health Service Australia

6F Partnerships in Improvement: Patients, Providers and Researchers |

6F.1 14:55 | Reducing power inequities to drive improvement: Piloting the Collaborative Pairs Program. Helen Dickinson, UNSW Australia

6F.2 15:10 | Why don't health professionals respond to their own data? A multisite, exploratory case study evaluation. Debra Mitchell, Monash Health Australia

6F.3 15:25 | Experience of health leadership in partnering with university based researchers. Ingrid Botting, University of Manitoba Canada

6F.4 15:40 | The potential for community-managed organisations to reduce inequity by connecting physical and mental health care. Olivia Wynne, The University of Newcastle Australia

6F.5 15:45 | Embedding economists in health services to improve local evaluation practice. Christine Jorm, NSW Regional Health Partners Australia

6F.7 15:50 | Navigating the workplace as a younger person with arthritis. Danielle Berkovic, Monash University Australia

6G Primary Care, Patient Empowerment and Technology Symposium |

6G.1 14:55 | Primary care - shaken not stirred, with a twist of technology. Symposium Lead: Alesha Smith, University of Otago, New Zealand. Symposium Lead: Alesha Smith, University of Otago. Presenters: Alesha Smith, Rakhee Raghunandan, Amber Young, Sharon Leitch, University of Otago New Zealand

6H Sustainable Integrated Care Symposium |

6H.1 14:55 | From Startup to Sustainability: Insights from 23 integrated care initiatives. Symposium Lead: Nicole White, Australian Centre for Health Services Innovation, Queensland University of Technology, Australia. Presenters: David Brain, Hannah Cater, Robin Blythe, Carly Dyer, Australian Centre for Health Services Innovation, Queensland University of Technology, Australia

6I Pharmacy and Health Equity Symposium |

6I.1 16:15 | How can pharmacy services in New Zealand contribute to achieving health equity? Symposium Lead: Caroline Morris, University of Otago, New Zealand. Presenters: Joanna Hikaka, University of Auckland, Yasmin Abdul Aziz, Pauline Norris, University of Otago, New Zealand

Women healing living the good life' Indigenous Women Defining and Directing a New Paradigm for HIV Health Policy and Services in Manitoba, Canada

Symposium Lead: Sharon Bruce, University of Manitoba

Rationale for Symposium: Our project is multi-phased and includes multiple partners. A symposium will allow us to discuss context, methods, findings and implications.

Topic description

Title: “*Women healing living the good life*”: Indigenous Women Defining and Directing a New Paradigm for HIV Health Policy and Services in Manitoba, Canada

In Manitoba, approximately 35% of people living with HIV are women, which is significantly greater than the national average of 22%. Of the women living with HIV in Manitoba, the majority are Indigenous (First Nations, Metis or Inuit). In addition to a higher prevalence, Indigenous women experience delays in diagnosis, and face barriers accessing and engaging in HIV treatment and support, and other health services. Given this context, the purpose of this research is to inform development of health services and policy for Indigenous women living with HIV. This project is part of a larger national cohort study (Canadian HIV Women's Sexual and Reproductive Health Cohort Study – CHIWOS) that aims to assess the availability, uptake and effect of women-centered HIV services.

The project name, “*Women healing living the good life*”, was received through ceremony with the project Knowledge Keeper and Elders. This name highlights the project's commitment to healing, ceremony, community-building and spirituality, which are all central aspects of Indigenous health.

Principles central to achieving the goal of transforming health services for Indigenous women living with HIV include: operating from and applying a decolonizing lens; conducting research that is led by and is meaningful to those most affected by HIV; and proceeding in a way that honours the dignity and spirit of all those involved. This symposium will review project activities; knowledge generated and discuss implications for health services and research.

Presentation one:

Structural Drivers of HIV in Manitoba

Laverne Gervais, Ka Ni Kanichihk (Indigenous Community Organization)

Overview: The excessive burden of HIV among Indigenous women is best understood when viewed through historical and anti-racist lenses. Structural drivers of HIV include historical and ongoing government policies that have separated Indigenous people from healthy spaces (e.g., land dislocation), promoted assimilation (language, culture) and fostered inequitable resource distribution. These policies in turn influence proximal (e.g., health behaviours) and intermediate (e.g., health systems) determinants of health, and structure risk for HIV acquisition, disease trajectory and outcomes. Indigenous women living with HIV (peers) identified complex trauma, violence, flawed and unjust systems and racism as causes of HIV and barriers to being well.

Presentation two:

Environmental Scan of HIV Services

Marissa Becker, University of Manitoba

Overview: The Medicine Wheel, which includes emotional, physical, spiritual and mental dimensions of health, was the conceptual model that guided exploration of services available for Indigenous women living with HIV. We identified and conducted interviews with 12 organizations. A range of services are available including primary care, crisis care, peer-led support, harm reduction and HIV specialist services. Three organizations offered services specifically for people with HIV. Some community programs are rooted in peer engagement in

both day-to-day operations and decision-making roles. In general, services are fragmented, difficult to access and disconnected from aspects of Indigenous wellness including spirituality and relationships.

Presentation three:

Māmawi wāhkôtowin: An Arts-Based Approach to Understanding Wellness and Living with HIV among Indigenous Women in Winnipeg, Canada

Adina Lakser, University of Manitoba

Overview: Restructuring health services for Indigenous women living with HIV requires an understanding of their perceptions of what it means to be well and how systems may assist in this process. We held arts-based workshops to better understand wellness. Data generation included creation of a medicine wheel quilt using words and images. Supporting activities included ceremony, teachings from a Knowledge Keeper, discussion, a feast and healing activities. Wellness included communicating with and listening to others, learning from Elders, walking, knowledge acquisition and being out with family. Peers valued health professionals but saw wellness as prerequisite to benefitting from medical care.

Presentation four:

Application to Policy and Health Services

Sharon Bruce, University of Manitoba

Overview: We created a service and research framework for Indigenous women living with HIV that is asset-based, historically informed and incorporates cultural humility and spirituality. An asset-based approach recognizes that Indigenous women have skills and resources, and that practitioners are responsible for creating environments to foster those skills. Historically informed care requires reflection upon the processes and consequences of colonization, and development of approaches that address what matters to Indigenous women. Cultural humility requires practitioners (decision-makers) to reflect upon and recognize the power they hold and to work towards neutralizing the power dynamic with patients/clients and facilitating a more egalitarian environment.

Prioritising health care - how to integrate differing public views

Symposium Lead: Professor Rachel Baker (Glasgow Caledonian University, Scotland, UK).

Rationale for Symposium: A central challenge in any health system is the efficient and equitable distribution of scarce resources. There is growing emphasis on incorporating the views and values of 'the public' in decisions about the distribution of resources. This has proved challenging: genuine participation is time consuming and costly; there are questions about who should be involved, in what numbers; and there is the question of plurality and what to do when there is disagreement. Academic disciplines address plurality in different ways, placing different emphasis on good process versus good outcomes, and on key concepts such as coherence, consistency and consensus.

Researchers who are interested in public values (including in health priority setting) tend to proceed along one of two lines: aggregation (surveying large numbers and eliciting preferences, summing or aggregating to find resolution) or participatory deliberation (providing citizens with information and resources and facilitating reasoned exchanges with the aim of finding common ground and recommendations). Aggregation will tend to hide diversity and disagreement, there might be no clear majority and different types of aggregation might lead to different recommendations. Deliberation is typically resource intensive, which often means relatively small numbers of participants, raising issues of representation and legitimacy.

This symposium will bring together different disciplinary perspectives on plurality in public values in relation to health priority setting. Relevant projects in the UK, New Zealand and Australia will be presented and a new research approach to assessing how plurality can be captured and used to inform policy and practice.

Introduction Professor Rachel Baker (Glasgow Caledonian University, Scotland, UK) will introduce the symposium, describe the conceptual background and outline the aims and objectives of the session (10 minutes)

Presentation one

Professor Paul Scuffham (Director of the Centre for Applied Health Economics, Griffith University, Australia) will describe a research programme in Australia that compared deliberative and health economic approaches to common health challenges (15 minutes). He will summarise a range of publications on the issue funded by the Australian Research Council Linkage Grant (#LP100200446)

Presentation two

Dr Emily Tumilty, Professor Tim Stokes (Department of General Practice and Rural Health, University of Otago, Dunedin, New Zealand) Professor Robin Gauld (School of Business, University of Otago, Dunedin, New Zealand) will describe a framework approach undertaken in New Zealand where the concept of an extended version of "accountability for reasonableness" was tested (15 minutes). This research project was funded by the Lottery Fund.

Presentation three

Professor Rachel Baker will present proposals for a new research programme in the UK that seeks to explore how plurality of public values can be harmonised to inform policy (15 minutes). This is in preparation for a Wellcome Trust Programme grant submission

Discussion

Professor Rachel Baker will chair the closing discussion and identify a common way forward for an international research collaboration (20 minutes)

Improving access and equity by reducing waiting time in community-based outpatient services: an evidence-based approach

Symposium Outline

Excessive and inequitable waiting times for care can be a problem for both patients and health services. Access issues are not only associated with emergency departments and surgical procedures; patients seeking sub-acute and community-based services also experience lengthy waiting lists, resulting in poorer health outcomes, anxiety, and reduced engagement with services.

Waiting lists are often considered to be the result of a disparity between demand and supply. Short term strategies, such as temporary increases in supply, often fail to resolve the underlying problem and waiting lists simply recur. Strategies that focus on managing waiting (such as triage and prioritisation systems) can help the most urgent patients to access timely care, but rarely reduce overall waiting time, contribute to inequity and can exacerbate the problem by diverting resources from clinical care.

In contrast, promising results have been reported from strategies that address patient flow by reducing complexity in booking systems, combining triage with initial management, and/or actively managing the relationship between supply and demand. One such model, known as Specific Timely Appointments for Triage (STAT) brings these elements together and reduced waiting times in two single service pilot studies by 30-40%. These studies provided support for successful National Health and Medical Research Council Partnership grant funding for a larger study.

This symposium describes the broad application of the STAT model across eight community-based health services using a stepped wedge cluster randomised controlled trial, supplemented by a cost effectiveness study, a qualitative evaluation of staff experiences and a comprehensive research translation program.

Presentation 1: The STAT Model reduces waiting time for community outpatient services: A stepped wedge cluster randomised controlled trial

Dr Katherine Harding, Eastern Health/La Trobe University

A stepped wedge cluster randomised controlled trial was conducted to determine whether STAT reduced waiting time in a fully powered study involving eight sites (n=3116 patients). The primary outcome was time from referral to first appointment; secondary outcomes included time to second appointment, rate of discharge at 12 weeks and number of appointments provided. Median time from referral to first appointment reduced from 60 days pre to 36 days post-intervention across all sites (IRR 0.66, 95% CI 0.52 to 0.85) with no change in secondary outcomes. Variation in waiting time also reduced, suggesting improvement in equity of access to services.

Presentation 2: Cost effectiveness of the STAT model in community outpatient services

Dr David Snowden, Eastern Health/La Trobe University

Cost effectiveness analyses were completed alongside the multi-service, stepped wedge randomised controlled trial. Waiting time was the key outcome and incremental cost effectiveness ratios (ICERs) were reported from societal and health service perspectives. Full economic data were collected from 278 patients in the control period and 279 patients in the experimental period. The ICER from a societal perspective showed a saving of \$AUD 203 (95%CI -43 to 501) per day of reduction in waiting in the STAT group compared to the control group. Cost savings were mainly due to lower personal care costs and a reduction in loss of income.

Presentation 3: Staff perceptions of implementation of the STAT Model of access and triage

Professor Nicholas Taylor, Eastern Health/La Trobe University

The perceptions of staff who were involved in implementing STAT about the benefits and challenges of the model and the process of implementation were explored using thematic analysis of semi-

structured interviews (n=20), with representatives from each of the participating services. Staff agreed that the STAT model improved access but led to challenges in managing prioritisation decisions after the initial assessment. The relative weight given to these factors varied and was influenced by the service environment, personal factors and the degree to which staff were exposed to the waiting list in their daily work, providing important insights about STAT implementation.

Presentation 4: Translation of the findings of the STAT trial into policy and practice

Annie Lewis, Eastern Health/La Trobe University

The STAT trial demonstrated that this model is an effective way to reduce waiting time in community based health services. In addition to dissemination through academic publications and presentations, the findings have been translated through development of practical and accessible online resources, printed materials and a workshop series for service providers. Further online updates and opportunities for web based discussion led to establishment of a community of practice. Our experience of translation will be used as a basis for discussion of successes and challenges in large scale translation of evidence from health services research into policy and practice.

Leveraging electronic data sources to monitor the quality and outcomes of aged care services

Symposium Lead: Magdalena Z. Raban, Australian Institute of Health Innovation, Macquarie University

Rationale for Symposium:

There has been a lack of data on the quality, safety and outcomes of aged care services. With the ageing population and the increasing number of older adults entering residential aged care, this has been a significant gap in planning for client needs. However, the implementation of electronic systems in residential aged care facilities (RACFs), presents new opportunities to use the data from these systems to implement monitoring of the quality of care and outcomes. This information is crucial for improving care delivery through not only changes to services, but also informing aged care policies. This symposium will demonstrate how the new aged care data sources can be used to answer key questions in aged care.

Topic description

The presentations use of data from an aged care service provider in NSW and the ACT, with 68 RACFs. Across the sample from 2014-2017, there are over 10,000 residents. The presentations cover key issues of concern in the residential aged care setting, including medication management, antibiotic use, and guideline concordant treatment. The challenges involved in using the data, and what these data sources add to current initiatives of monitoring care in aged care services will be discussed.

Presentation one:

What can electronic records in residential aged care add to antibiotic use surveillance?

Magdalena Z. Raban, Kimberly E. Lind, Andrew Georgiou, Johanna I. Westbrook

Overview: The overuse and inappropriate use of antibiotics is a major contributor to antibiotic resistance. Levels of inappropriate antibiotic use in residential aged care facilities (RACFs) are a concern and have been estimated to be as high as 50% of all antibiotic prescriptions. There are several recent initiatives aiming to monitor antibiotic use in facilities internationally, including in Australia, which rely on periodic point prevalence surveys. This presentation will examine how medication administration data from RACFs can augment these efforts. The strengths and limitations of the measures generated by each data source will be discussed.

Presentation two:

Innovations in monitoring quality use of medicines in Australian residential aged care facilities

Kimberly E. Lind, Magdalena Z. Raban, Mikaela L. Jorgensen, Andrew Georgiou, Johanna I. Westbrook

Overview: Medication management is a leading quality concern in Australian residential aged care facilities. Due to a lack of systematic monitoring and reporting, medication guideline adherence for common geriatric conditions is not well established in Australia. Our objective was to develop a novel approach to medication monitoring using electronic health record data and report compliance with guidelines for anti-osteoporosis medications, non-steroidal anti-inflammatory drugs (NSAID) and antipsychotic medications used in dementia. We will discuss medication guideline compliance findings and their implications for monitoring medication use and implications for policy.

Presentation three:

Profile of aged care facility residents with gout and management guideline concordance

Amy D. Nguyen, Kimberly E. Lind, Richard O. Day, Andrew Georgiou, Johanna I. Westbrook

Overview: Given gout's high prevalence in Australia, especially in the elderly population, as well as the increase in number of people using aged care services in Australia, it is important to understand the medical complexities and needs of the Australian RACF population. Gout management is consistently reported as being suboptimal, therefore this information is needed in order to appropriately manage this prevalent, debilitating condition and its related comorbidities. This presentation will examine the prevalence of gout among people in RACFs with respect to sociodemographic factors and health status, and assess gout management guideline concordance in the RACF population.

Influencing systems change to tackle childhood obesity: implementing a co-designed and culturally-tailored research program

Symposium Lead: Associate Professor Robyn Littlewood, CHQHHS

Rationale for Symposium: Reducing health inequities experienced among Australia's most vulnerable populations: implementing a co-designed and culturally-tailored research program, influencing systems change to tackle childhood obesity.

Topic description

The prevalence of overweight and obesity (overweight/obesity) among Australian children has doubled in the last two decades, with 1-in-4 Queensland children classified as overweight or obese. In response, the Paediatric Obesity Working Group (POWG), under the auspices of the Queensland Child and Youth Clinical Network (QCYCN), have implemented a systems-wide, action-based framework to tackle childhood overweight/obesity across the Queensland healthcare system. However, culturally diverse population groups continue to suffer the worst health of the nation due to a lack of and poor access to culturally-tailored health services. Due to the expanding cross-cultural gap in obesity prevalence, Māori and Pacific Islander (MPI – respectfully throughout) communities exhibit higher rates of overweight/obesity and consequently chronic disease. In response, the Good Start program have implemented a culturally-tailored childhood overweight/obesity prevention program and multidisciplinary treatment clinic. With strong input from Health Services Research (HSR), evaluation of these initiatives will develop a framework that is scalable to many cultural groups across Queensland. This framework will be value-based and initiate change on a systems-level, improving the delivery of health care and reducing health inequity to significantly improve health outcomes among Australia's most vulnerable populations. The fundamentals of co-design will be explored throughout this symposium, upskilling participants to implement this methodology in their relevant area.

Presentation one

Authors and affiliations

Robyn Littlewood, CHQHHS

Sebastien Brignano, CHQHHS

Overview: ***Implementing systems change and culturally-specific programs to tackle childhood overweight and obesity in Queensland*** (15 minutes)

The POWG, under auspices of the QCYCN and academic partners, have developed and implemented the first systems-wide and integrated framework for tackling childhood overweight/obesity in Queensland. *The Model of Care* guides clinicians to support local initiatives and deliver a collaborative approach to childhood overweight/obesity prevention and management, providing optimal care to children and their families. Via school-based prevention and treatment programs, Good Start aims to improve the health and wellbeing of MPI children and families. All multicultural health workers are of MPI descent, initiating a strong relationship with consumers to positively influence health behaviour change and reduce chronic disease prevalence.

Presentation two

Authors and affiliations

Sebastien Brignano, CHQHHS

Jessica Hardt, CHQHHS

Overview: ***How to effectively implement a co-design approach to program development*** (20 minutes)

Preventive health care is typically driven by health professionals and desensitised to the needs of consumers, resulting in poor adherence to recommendations and limited improvements in health outcomes. Co-design promotes power equality, with successful interventions implemented in New Zealand promoting high levels of consumer empowerment to implement culturally-tailored initiatives.

MPI consumers collaborated closely with a team of multicultural health workers and health professionals to co-design *Healthy Kids Healthy Families Logan (HKHF)*, an evidence-based, culturally-tailored and community-focused childhood overweight/obesity prevention program. This presentation will briefly cover the fundamentals of co-design, upskilling participants to implement this methodology in their relevant area.

Presentation three

Authors and affiliations
Jessica Hardt, CHQHHS

Overview: ***Outcomes and impact of a co-designed and culturally-tailored, childhood overweight and obesity prevention program (10 minutes)***

HKHF program success is largely underpinned by the strong sense of community ownership and empowerment promoted by co-design. Cultural-tailoring of the program to address consumer needs has resulted in outstanding uptake and acceptance within the community, with 70% of families attending all eight workshops. High participation rates have also translated into improved anthropometric indicators, with 15/25 (60%) children and 4/9 (44%) adults decreasing their BMI. Additionally, 5/6 (83%) families increased their consumption of vegetables per week indicating program effectiveness to improve self-efficacy and elicit health behaviour change. Such behavioural improvements will promote long-term improvements in obesity and its comorbidities.

Presentation four

Authors and affiliations
Kerri-Lyn Webb, CHQHHS
Jessica Hardt, CHQHHS

Overview: ***Transferring the co-design approach – implementation of a research and evaluation framework (15 minutes)***

Evaluation of HKHF will inform the development of a groundbreaking co-design framework, providing first-of-its-kind evidence outlining the effective management and treatment of childhood obesity among culturally diverse population groups. Strong input from HSR, in conjunction with the influential power of the QCYCN to initiate change on a systems level, will adapt this framework and inform future delivery of health care to other priority populations across Queensland. The provision of overweight/obesity preventive care to any child and family statewide, regardless of location or population group, will significantly improve health outcomes across generations to help close the health equality gap.

Reducing power inequities to drive improvement: Piloting the Collaborative Pairs Program

Helen Dickinson¹ Suzanne Robinson² Leanne Wells³ Jennie Parham⁴

¹ UNSW Canberra, ² Curtin University³ Consumer Health Forum ⁴ Collaborative Pairs Australia

Objectives

The Collaborative Pairs pilot project (CPADT) is being co-ordinated by the Consumers Health Forum of Australia and implemented in four Primary Health Networks in Australia. It is modelled on a programme from the King's Fund.(UK) The aim of the CPADT is to bring together consumers, patients and community leaders, alongside wider health service groups (including clinicians, managers and service providers), to build productive, collaborative relationships and to appreciate and practice how different roles and perspectives can bring about constructive change within the Australian context. The ultimate aim of the programme is to drive cultural change in order to reduce entrenched power inequities between clinicians and consumers of health services and to drive improvement through the health system.

Methods

Semi-structured interviews were conducted with the sponsoring organisations of CPADT and a range of active participants within the programme (facilitators, consumers, community representatives, clinicians) to explore the strengths and weaknesses of the programme, whether it reached its intended goals and if the programme needs further development to be applicable in the Australian context.

Implications

The findings of this project demonstrate that changing embedded cultures and norms of behaviour is far from easy and takes time to make significant changes. The paper outlines the gains that have been made through the pilot programme, the barriers that have been encountered in the process and further changes that need to be made to CPADT for it to be successful within the Australian context.

Why don't health professionals respond to their own data? A multisite, exploratory case study evaluation.

Deb Mitchell^{1,2}, Lisa O'Brien², Anne Bardoel³ and Terry Haines¹

¹Monash Health, ²Monash University, ³Swinburne University

Objective

This study aimed to understand why health professionals at two Australian hospitals chose to minimise changes to the models of weekend allied health services that had been shown to have little impact on patient outcomes.

Methods

We used a multisite, explanatory case study design. Weekend allied health services had been removed from 12 medical and surgical wards at two hospitals as part of a disinvestment trial with little impact on patient outcomes such as length of stay and adverse patient incidents. Focus groups on involved wards (N=144) sought suggestions for potential service improvements. Allied health managers from two hospitals (seven at Hospital A; five at Hospital B) were then asked to engage in a modified Delphi process to reach consensus on a new model of weekend allied health service delivery specific to each site.

Lessons learned

At both health services, ward staff and allied health managers advocated to keep the service relatively unchanged despite evidence of ineffectiveness. This may have been because participants did not believe or value the results of the first half of the larger trial; the decision makers were too invested in the previous model, or limitations in application of the Delphi approach. Factors included cognitive biases, the challenging nature of altering after-hours services, and the time constraint or decision-making process used in the study.

Implications

Evidence of minimal impact on patient outcomes is not enough to motivate clinicians and service managers to change a service they previously provided, partially explaining the persistence of low value care.

Experience of health leadership in partnering with university based researchers in Canada

Ingrid Botting¹, Sarah Bowen², Ian Graham³, Martha MacLeod⁴, Danielle DeMoissac⁵, Karen Harlos⁶

¹University of Manitoba, ²Independent Researcher, ³University of Ottawa, ⁴University of Northern British Columbia, ⁵Université de Saint-Boniface, ⁶University of Winnipeg

Objectives

Emerging evidence that meaningful relationships with knowledge users are a key predictor of research use has led to promotion of partnership approaches to health research. Little is known about the experiences and perspectives of health system leadership with health-organization -- university research partnerships, particularly those focused on health system design and services organization.

Methods

In-depth, semi-structured interviews (n=25) were conducted with senior health personnel across Canada. Questions explored how is research defined and understood within health regions; the extent research is used in organizational planning/innovation; challenges experienced by the health system in partnerships; and suggested actions to improve effectiveness of partnerships. A draft report on findings was prepared for all participants to review.

Lessons Learned

Definitions and understandings of “research” differ widely among those in the health system. Research is often experienced as unhelpful or irrelevant to decision-making. Major barriers to partnership differ from those identified in the literature, with participants emphasizing organizational stress and restructuring, and limitations in readiness of researchers to work in health care environment. Researcher behaviour on site was another issue identified. “Multi-system action” (health organizations, research funders, academia) is needed if effective academic/researcher partnerships are to be achieved.

Implications

Current challenges to research partnerships may discourage health organizations from engaging in partnership research, and result in further marginalization of research in organizational planning. Interventions to address barriers must respond to the perspectives and experience of health leaders, and require radical rethinking of what is meant by “research” and inter-system action.

The potential for community-managed organisations to reduce inequity by connecting physical and mental health care.

Olivia Wynne^{1,4,5}, Tara Clinton McHarg^{1,4,5}, John Wiggers^{2,3,4,5}, Luke Wolfenden^{2,3,4,5}, Kate Bartlem^{1,4,5}, Andrew Searles^{2,5}, Andrew Wilson^{4,6}, Magdalena Wilczynska¹, Lauren Gibson¹, Jenny Bowman^{1,4,5}

¹School of Psychology, Faculty of Science, The University of Newcastle

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³Hunter New England Population Health, Hunter New England Local Health District

⁴The Australian Prevention Partnership Centre, Sax Institute

⁵Hunter Medical Research Institute

⁶Menzies Centre for Health Policy, The University of Sydney

Objective:

The 'CMO Connect' project is exploring the potential role that community managed organisations (CMOs) might play in providing chronic disease preventive care to people with a mental health issue. The project aims to identify: 1) current CMO preventive care practices; 2) barriers and facilitators to CMO staff providing preventive care; 3) consumer preferences for receiving preventive care; and 4) the organisational mechanisms that may support CMOs to provide preventive care systematically.

Methods:

This collaborative project (utilising quantitative and qualitative methods) will be undertaken over 2.5 years with mental health CMOs in NSW. The methods of each of the project's sub-studies will be described, including the ways in which the Knowledge-to-Action Framework and Theoretical Domains Framework are guiding the research.

Lessons learned:

The study will provide a comprehensive picture of the preventive care that is currently being provided by CMOs, the potential barriers and facilitators to its provision, and mechanisms that could enhance the systematic provision of such care. Based on the findings from the four sub-studies, one or more models of preventive care provision in CMOs will be co-developed and pilot tested.

Implications:

Findings from this research will assist other CMOs, and those who work with them, to understand how preventive care could be integrated into practice within their organisation. The project will produce one or more feasible models of providing preventive care that could be adopted and implemented by CMOs to help them reduce the inequitable chronic disease burden experienced by people with a mental health condition.

Embedding economists in health services to improve local evaluation practice

Christine Jorm¹ and Andrew Searles²

¹University of Newcastle, ²Hunter Medical Research Institute

Objective

To improve the capability of regional and rural NSW health services to undertake rigorous evaluations of healthcare. Australia spends most health budget at the 'local level', where skills to support evidence based decisions about technologies and models of care are limited.¹

Methods

- i) Capacity building supported by an online curriculum in economic evaluation, modelling, qualitative evaluation and decision making for health service managers.
- ii) Embedding an economist for several months into six health services across Australia together with a social scientist to study whether proximal exposure to a specialist evaluation intervention (education + access to a health economist) had beneficial outcomes on staff knowledge and attitudes toward the use of evidence in decision making. The approach is informed by interventionist accounting research. The economist will perform a major educational role in sharing good practices; special attention will be given to promoting Business Impact Statements to improve assessment of affordability.

Lessons Learned

Embedding skilled economists in health services promotes an applied focus on evaluation that is meaningful to health. Results will include mapping of decision processes before and after the intervention and analysis of the economist's field diary.

Implications

In 2015 the Australian Productivity Commission called for improvements to healthcare evaluation architecture. This work is an initial step toward empowering health services to build capacity and capability in rigorous evaluation.

1. Searles A, Gleeson M, Reeves P, et al. The Local Level Evaluation of Healthcare in Australia. Newcastle: NSW Regional Health Partners, 2018.

Listening to younger people with arthritis: A qualitative study of experiences in the workplace

Danielle Berkovic¹, Darshini Ayton¹, Andrew Briggs², Ilana Ackerman¹

¹ Monash University, ² Curtin University

Objectives

Over half the population in Australia with arthritis and other musculoskeletal conditions is aged 25 – 64 years. This reflects the peak income-earning years for most, yet little research has examined the influence of arthritis on work issues specific to younger people. The aim of this research is to explore the experiences of younger people with arthritis in the workplace, and to assess the barriers and facilitators to productive working from a participant-oriented perspective.

Methods

A qualitative exploratory design was used. Participants with inflammatory arthritis or osteoarthritis were recruited from the community. An interview guide was based on the World Health Organization's International Classification of Functioning, Disability and Health. Deductive and inductive coding techniques were used to identify emerging work-related themes from the data.

Lessons Learned

Three major themes were identified from 21 semi-structured interviews conducted with younger people with a mix of arthritis conditions, vocational backgrounds and career stages. The first was the perceived impacts of arthritis on career trajectories, the second was the impacts of arthritis on participants' workplace environment, employers, and colleagues, and the third was the personal toll of working with arthritis. Supportive workplaces facilitated optimal working capacity, whereas those in non-supportive or non-flexible environments identified this as a barrier to productive working.

Lessons Learned

Younger people with arthritis experience challenges at key stages of their careers, from career planning through to productive working. This can be used to inform workplace accommodations for people with arthritis and increase awareness of likely barriers to work productivity among colleagues, employers, and clinicians.

Symposium Lead: Alesha Smith, School of Pharmacy, University of Otago

Rationale for Symposium:

A primary health care system can only improve health outcomes and reduce inequalities if it exists in an environment that encourages continuity of care for patients, is well coordinated, collaborative, is easily accessible and is personalised and appropriate for each patient.

New Zealand's primary care system lacks many of these features. To improve we need to think differently and change the way primary care operates. To better meet the needs of our current and future populations we need to ensure empowered patients are at the heart of primary care.

Our symposium aims to get you to think differently about how primary care could look and feel.

Topic description:

Our symposium showcases innovative studies which aim to empower patients, improve health outcomes and reduce inequalities. Our research is patient-centric and is focused on quality use of medicines. We will provide an overview of primary care medicine use in New Zealand and introduce new models of primary care such as expanded pharmacist prescribing. We will then look at digital solutions for providing tailored information to patients about their prescribed medicines and the identification and communication of each medicines risks and benefits, personalised for each patient. To enable these new healthcare services we need appropriate data and technology platforms in place; we will give an update on where primary care is on the Digital Health 2020 roadmap and where we are heading.

Presentation one

Alesha Smith, School of Pharmacy, University of Otago and Airmed Ltd

Overview:

New Zealand has a wealth of health data, we will show examples of potential tools that use NZ's data, to address health inequalities and improve health outcomes for patients. As per the NZ Digital Health Strategy, these new tools can provide a stronger evidence base for more efficient, inclusive, and sustainable healthcare delivery. The tool's potential lies in the additional provision of relevant and timely data to individually produced patient records. Our recent surveys have shown that currently there's no consistency in the clinical data/analytics provided through primary health organisations in NZ, however most GPs and pharmacists would value these.

Presentation two

Rakhee Raghunandan, School of Pharmacy, University of Otago

Overview:

Inadequate access to prescribing services (i.e. GPs) is a looming issue in New Zealand primary care. While NZ has attempted to widen the provision of medicine prescribers by introducing non-medical prescribers (NMPs) in NZ, the NMP service is under-utilised. The pharmacist prescriber service demonstrates a health system model that requires some disruptive innovation to improve efficacy. Utilising discrete choice methodology, we hope to enable evidence-driven policy changes to design a more efficacious pharmacist prescriber service in NZ. We aim to address inequity of access to prescribing services in primary care by enabling effective future models of medicine prescribers in NZ.

Presentation three

Amber Young, School of Pharmacy, University of Otago.

Overview:

Individuals must be appropriately informed about their medicines to enable informed decision-making and empowerment in healthcare. Currently people may not be fully informed about medicines risks, benefits, and directions-of-use which may further increase health inequity. Giving information leaflets could help but they are often poorly written, not read, or are not provided at point-of-care. Digital platforms offer a user-friendly alternative and would enable information to be tailored to personal preferences and requirements. Further benefit could be added if Patient Reported Outcomes were utilised, so patients' personal medicine experiences could shape the information they receive to support optimal treatment outcomes.

Presentation four

Sharon Leitch, Dunedin School of Medicine, University of Otago

Overview:

Patients seeking healthcare are at risk of medicine-related harm. The impact is excess morbidity, mortality, and stress on health systems already under pressure. A large New Zealand retrospective records review has examined harms arising from primary care to identify patients, medicines, and clinical settings at increased risk of medicine-related harm. Those data are now being used to develop a point-of-care risk detection tool to provide prescribers and patients with individualised risk predictors for medicine-related harm. It will facilitate communication about medicine risks and benefits, and support decision making about treatment options. Improving medicine health literacy may reduce inequities in care.

From Start up to Sustainability: Insights from 23 integrated care initiatives

Symposium Chair: Nicole White

Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, School of Public Health and Social Work, Faculty of Health, Queensland University of Technology, Brisbane, Australia

What do you need to do before the money runs out? HSRAANZ Conference 2017 showcased the Queensland Government's Integrated Care Innovation Fund (ICIF), which supported 23 pilot initiatives that redesigned services to better meet the needs of the patient. In this symposium we report on the most salient implementation insights from AusHSI's evaluation of the ICIF, with a focus on the key factors involved in successfully navigating the transition to business-as-usual.

Relevant for health professionals, policy developers, and executives, this symposium addresses how to turn a temporary pilot program for health service delivery into a lasting business model. We discuss various ICIF projects illustrating the implementation factors most commonly associated with success, along with the major threats to sustainability and strategies for dealing with them.

Presentation one:

Negotiating cooperation among stakeholders with diverse interests David Brain

Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, School of Public Health and Social Work, Faculty of Health, Queensland University of Technology, Brisbane, Australia

The complexity of managing large and diverse networks of stakeholders, with high potential for interpersonal conflicts, was an inherent challenge for many ICIF projects. This presentation uses case examples to highlight successful strategies for stakeholder management and flag barriers that may impede lasting implementation success. We discuss the importance of existing relationships, champions, opinion leaders, and formally appointed implementation leaders who can cross stakeholder boundaries. Additionally, we explore why systems-level incompatibility and the prioritisation of breadth, rather than quality of engagement, present significant barriers to ongoing project success.

Presentation two:

The dos and don'ts of GP engagement Hannah Carter,

Bridget Abell

Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, School of Public Health and Social Work, Faculty of Health, Queensland University of Technology, Brisbane, Australia

GPs have multiple competing demands on their time and need to selectively engage in activities that align with their interests and the interests of their patients. This presentation discusses learning from projects requiring strong GP engagement. We discuss successful strategies for GP recruitment to a capacity-building innovation and a multi-disciplinary team model of care. We also present an example of GP engagement that was inherently flawed due to a lack of planning, mismatch of interests, and limited consideration of the tensions for change and financial landscape of primary care.

Presentation three:

New technologies: a help or a hindrance? Robin Blythe

Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, School of Public Health and Social Work, Faculty of Health, Queensland University of Technology, Brisbane, Australia

Technological innovation holds enormous potential to improve access to care and health service efficiency, but potential pitfalls can be catastrophic for finances, patient management and data privacy. This presentation discusses projects that successfully introduced new interfaces and how they dealt with substantial technological failures. We also explore reasons why the roll-out of new software in other projects presented insurmountable challenges. This presentation highlights the ways in which technology can both help and hinder integration of care, and above all, how to plan for it going wrong.

Presentation four:

From start-up to sustainability

Carly Dyer

Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, School of Public Health and Social Work, Faculty of Health, Queensland University of Technology, Brisbane, Australia

AusHSI evaluated all 23 ICIF projects using the Consolidated Framework for Implementation Research (CFIR), which identified salient factors associated with successfully transitioning a health service innovation to business-as-usual. Several factors emerged as key to sustainability: understanding political climates and how to position service changes to meet the strategic priorities of funding commissioners; openly facing conflicts of interest and formalising agreements; pre-planning the collection of appropriate shared outcome measures; and overcoming structural barriers to data collection and data- sharing.

How can pharmacy services in New Zealand contribute to achieving health equity?

Symposium Lead: Dr Caroline Morris, Department of Primary Health Care and General Practice, University of Otago Wellington

Rationale for Symposium:

Significant expansion of pharmacists' roles has been occurring internationally. Reducing barriers to access to medicines and pharmacy services is important for working towards achieving health equity. A symposium focused on pharmacy will provide an opportunity to showcase research in this sector and foster discussion about the direction of pharmacy services' development and the contribution pharmacists can make to the health system.

Topic description

Community pharmacies are the primary health care service that is most accessible to the public. In addition, a growing number of pharmacists are working within general practices and other primary health and community care settings. In both Aotearoa New Zealand and Australia, and elsewhere internationally, pharmacists' roles have been developing beyond traditional dispensing and medicines advice to more cognitive roles that place a greater emphasis on patient-centred care, optimising medicines use and wider public health functions. Pharmacists in community and primary health settings are well placed to contribute to reducing inequalities at both individual and population levels and offer preventative health care through to continuing support for people with long-term conditions.

This symposium will explore some recent developments in community and primary health care pharmacy services in Aotearoa New Zealand, highlighting factors supporting or hindering development of the profession and the medicines and services it offers. The presentations include Māori and Pacific viewpoints, the impact of prescription charges and the role of unfunded services, with a focus on reducing inequalities.

Presentation one:

How will changes in community pharmacy services in New Zealand benefit service users?

Ausaga Fa'asalele Tanuvasa¹

Caroline Morris²

Jackie Cumming¹

Janet McDonald¹

Lynne Russell¹

Kirsten Smiler¹

Nora Parore¹

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Tara Officer¹

¹ Health Services Research Centre, Faculty of Health, Victoria University of Wellington

² Department of Primary Health Care and General Practice, University of Otago Wellington

Overview:

The New Zealand *Pharmacy Action Plan 2016-2020* promotes people-centred, collaborative and integrated health care that will improve health outcomes for all New Zealanders, with a particular focus on equity for Māori, Pacific and other priority populations. Our research is using a realist evaluation approach to explore how community pharmacy services are developing in New Zealand, the expected outcomes and the mechanisms through which change is occurring. This presentation will discuss the findings of interviews with community pharmacists, including Māori and Pacific pharmacists, with a focus on outcomes for service users.

Presentation two:

Development of a medicines review service responsive to the needs of Māori older adults

Joanna Hikaka^{1,2}
Rhys Jones³
Martin J Connolly^{2,4}
Carmel Hughes⁵
Nataly Martini¹

¹School of Pharmacy, University of Auckland

²Waitematā District Health Board, Auckland

³Te Kupenga Hauora Māori, University of Auckland

⁴Freemasons Department of Geriatric Medicine, University of Auckland

⁵School of Pharmacy, Queen's University, Belfast, UK

Overview:

Māori experience poorer access to, and quality of, care across a range of clinical contexts compared to non-Māori, including medicines use. Our research includes a systematic review of pharmacist-led medicines review services in NZ exploring the sector's response to health equity for Māori. Interviews with kaumātua and health professionals have been undertaken to explore experiences and needs of medicine-related services. Thematic analysis was used to generate themes (including impact on daily life, and power dynamics of medicine treatment). These contributed to development of a medicines education and optimisation service for kaumātua which is being tested in a feasibility study.

Presentation three:

What unfunded services are being provided in community pharmacy in New Zealand? An investigation of pharmacy provision and patient utilisation of non-remunerated services

Yasmin Abdul Aziz¹
Susan Heydon¹
Stephen Duffull¹
Carlo Marra¹

¹ School of Pharmacy, University of Otago, Dunedin

Overview:

There has been increased media coverage about pharmacies offering services which are not reimbursed by the government, insurance companies or paid for by the patient. Anecdotal evidence suggests that such services benefit patient health outcomes. Limited literature exists about the health outcome and monetary value of such services. Our research aims to identify these unfunded services, their impact on patient health outcomes and if they represent good value to the healthcare system if they were to be reimbursed. This presentation will focus on the findings of focus group discussions with pharmacists and observational studies in community pharmacies.

Presentation four:

Do free medicines improve people's health? A randomised controlled trial of prescription charges

Pauline Norris¹
Kim Cousins¹
Shirley Keown²
Marianna Churchward³
Alesha Smith⁴

Carlo Marra⁴
Simon Horsburgh⁵
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¹ Centre for Pacific Health, University of Otago

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³ Health Services Research Centre, Faculty of Health, Victoria University of Wellington

⁴ School of Pharmacy, University of Otago

⁵ Department of Preventive and Social Medicine, University of Otago

Overview:

Prescription charges in New Zealand are low by international standards, but there is evidence that for some people they are a significant barrier to accessing prescription medicines. In this presentation we will describe a large randomised controlled trial for which we are currently recruiting participants. We aim to explore the impact of prescription charges on health and health services use for people who are likely to have difficulty affording their medicines. We will do this by measuring the impact of exempting people from prescription charges on a range of health and health services outcomes, primarily hospital bed-days.

THURSDAY 5 DECEMBER 2019

Concurrent sessions 7A – 7I

7A HSR and indigenous services and communities |

7A.1 16:15 | Indigenous peoples telling their story of the health of their heart. Moneca Sinclair, University of Manitoba Canada

7A.2 16:30 | From head to heart study - How ceremony can support health leaders to make the connection. Stephanie Van Haute, Elder Mary Wilson, University of Manitoba Canada

7A.3 16:45 | Developing an Aboriginal health, wellbeing and safety evaluation framework. Ebony Verbunt, Centre for Health Policy, Melbourne School of Population and Global Health, The University of Melbourne Australia

7A.4 17:00 | A Scoping Review of Indigenous People Heart Health Literature from Australia, Canada, New Zealand, and the United States: Lets Discuss Epistemic Challenges. Annette Schultz, College of Nursing, University of Manitoba Canada

7B Health Economics |

7B.1 16:15 | The cost-effectiveness of Stereo-electroencephalography for people with refractory epilepsy: a decision model analysis. Hannah Carter, Australian Centre for Health Services Innovation Australia

7B.2 16:30 | Economic Evaluation of the Australian Contraceptive ChOice pRoject (ACCORD). Milena Lewandowska, Centre for Health Economics Research and Evaluation, University of Technology Sydney Australia

7B.3 16:45 | Cost-effectiveness analysis of ventricular assist devices used as a bridge to transplant in patients with end-stage heart failure. Sopany Saing, Centre for Health Economics Research and Evaluation, UTS Australia

7B.4 17:00 | What attributes of interventions for osteoarthritis drive preferences? A discrete choice experiment involving diverse stakeholder groups. Jason Chua, University of Otago New Zealand

7B.5 17:05 | Estimation of the friction period in Australia. Kathleen Manipis, University of Technology Sydney Australia

7C ED Research |

7C.1 16:15 | Translation of a health service innovation for older people: Implementation of the Geriatric Emergency Department Intervention into a new emergency department. Marianne Wallis, University of the Sunshine Coast Australia

7C.2 16:45 | Promoting Value-based care in Emergency Departments - The PROV-ED Project. Andrew Hobbins-King, PROV-ED Project Queensland Health Australia

7C.3 17:00 | Emergency Clinician perspective on Frequent Presenters to the Emergency Department. Viola Korczak, The George Institute for Global Health Australia

7C.4 17:15 | Health Economic impact of the Geriatric Emergency Department Intervention. Kim-Huong Nguyen, University of Queensland Australia

7D Health Care Variation |

7D.1 16:15 | Is there unwarranted variation in the provision of bariatric surgery in New Zealand's Northern Region? Edith Bennett, Northland District Health Board New Zealand

7D.2 16:30 | Trend and variation in rates of tonsillectomy procedures among children and young adults across New South Wales. Hassan Assareh, Agency for Clinical Innovation Australia

7D.3 16:45 | Hysterectomy rate variation in NSW. Huei-Yang Chen, Agency for Clinical Innovation, NSW Australia

7D.4 17:00 | Exploration of deviations from trauma transfer protocols in paediatric patients in New South Wales: a retrospective registry data study 2010-2016. Pooria Sarraimi, ACI Institute of Trauma and Injury Management Australia

7E Child Health |

7E.1 16:15 | Strengthening primary care for children: Cost analysis of a new pilot model to integrate paediatricians within general practice. Rachel O'Loughlin, Murdoch Children's Research Institute Australia

7E.2 16:30 | Hospital morbidity profile of children involved in the child protection system: A long-term birth cohort study from infancy to early adulthood. Emmanuel Gnanamanickam, University of South Australia, Australia

7E.3 16:45 | Childhood health service use and cost across care sectors for children born with single-heart ventricle: evidence from the Australian and New Zealand Fontan Registry. Kim Dalziel, The University of Melbourne Australia

7E.4 17:00 | What's The Catch: barriers and enablers to collecting urine samples from young pre continent children in primary care. Jonathan Kaufman, University of Melbourne Australia

7E.5 17:05 | An evaluation of a large scale school eye health program for Indian children: A qualitative approach. Bharani Seelam, University of New South Wales India

7F Health Workforce |

7F.1 16:15 | The effect of medical workforce regulation on doctors' wellbeing: a natural experiment. Amadou Darboe, Center for Health Policy, University of Melbourne Australia

7F.2 16:30 | The flexibility of stable healthcare teams: a mixed methods study of emergency doctors and nurses. Sarah Wise, University of Technology Sydney Australia

7F.3 16:45 | What drives and motivates junior medical doctors in choosing a medical specialty in Australia? Insights from an Outcome Driven Innovation study. Marshall Makate, Curtin University Australia

7F.4 17:00 | Hiding in plain sight: Our invisible health information workforce. Karen Day, The University of Auckland New Zealand

7F.5 17:15 | Using longitudinal insights to model future workforce needs for General Practice in New Zealand. Antonia Verstappen, University of Auckland New Zealand

7G Researching Health Systems & Services |

7G.1 16:15 | Researching health systems: developing a platform for thinking about change in primary health care. Lesley Middleton, Victoria University of Wellington New Zealand

7G.2 16:30 | Operationalising the concepts of 'innovation' and 'translation' for population health: insights from an empirical cross-case analysis. Alexandra Edelman, James Cook University Australia

7G.3 16:45 | Alternative models to external consultancies in addressing complex health and social care challenges. Helen Skouteris, Monash Centre for Health Research and Implementation, School of Public Health and Preventive Medicine, Monash University Australia

7G.4 17:00 | Accounting for social value in the age of the Well-being budget. Sneha Lakhotia, Wai Research, Te Whanau o Waipareira New Zealand

7G.5 17:15 | What's equity got to do with it? Thirty years of Community Pharmacy Agreements. Paul Mackey, Deakin University Australia

7H Cancer Services |

7H.1 16:15 | Melanoma and general practice: factors affecting GPs' confidence in and attitudes towards managing patients with suspected or confirmed cutaneous melanoma. Andrea Smith, Macquarie University Australia

7H.2 16:30 | Financial stress, a side effect of cancer care: A new standard for informed financial consent. Kate Whittaker, Cancer Council Australia Australia

7H.3 16:45 | What needs to be improved to ensure interventions addressing socioeconomic inequalities in cancer-related outcomes are implemented into the real-world? Kate Whittaker, Cancer Council Australia, Australia

7H.4 17:00 | Does radiotherapy treatment for advanced cancer lead to job loss? Anh Tran, NHMRC Clinical Trial Centre, The University of Sydney Australia

7H.5 17:15 | Australian general practitioners' knowledge and attitudes about the role of sentinel lymph node biopsy (SLNB) in melanoma management. Caroline Watts, The University of Sydney, University of NSW, Australia

7I Pharmacy Practice and Medicines Research |

7I.1 16:15 | Does the wording of doctors' scripts inadvertently stimulate the demand for branded medicines? Elena Meshcheriakova, CHERE Australia

7I.2 16:30 | Feasibility of implementing a Commonwealth-funded delinked reimbursement model for antimicrobials in Australia: the What, the Why and the How? Nadine Hillock, University of Adelaide Australia

7I.3 16:45 | Utilisation and discontinuation patterns and factors associated with secondary prevention medication after stroke. Monique Kilkenny, Stroke and Ageing Research, Department of Medicine, School of Clinical Sciences at Monash Health, Monash University Australia

7I.4 17:00 | Barriers to pharmacist prescribing: a scoping review comparing the United Kingdom, New Zealand, Canadian and Australian experiences. Jane Desborough, Australian National University, Australia

7I.5 17:15 | Perceived Strengths and Limitations of Precision Medicine - a documentary analysis. Hueiming Liu, The George Institute for Global Health Australia

7I.6 17:20 | Adherence to antiretroviral regimens in Australia: a nationwide cohort analysis of dispensing data. Juliana Costa, University of New South Wales Australia

Indigenous peoples telling their story of the health of their heart

Moneca Sinclair¹, Mary Wilson², Annette Schultz

¹ University of Manitoba, College of Nursing, Rady Faculty of Health Sciences: ²Independent Contractor

Objectives

To begin to disrupt the dominance of biomedical approaches using Two-Eyed Seeing and Ethical space, two concepts rooted in Canadian Indigenous teachings, as a framework to develop four radio documentaries where Indigenous participants shared what heart health means to them and a fifth documentary where the voices of a settler and Indigenous Elder spoke about how Indigenous and biomedical worldviews can work together.

Methods

A mixed methods was used in this study where the radio component used recorded qualitative conversations to not only honor Indigenous knowledges and processes to guide data gathering and analysis but to record Indigenous, and one-settler voice, voices to tell their story of heart health.

Lessons Learned

Since European contact the colonial narrative has dominated Indigenous people's accounts of health where their stories of health have been told through a biomedical lens. Radio is a method overlooked as a tool to enable Indigenous voices to articulate their story of their health using their knowledges; radio provides a forum for social and political dialogue.

Implications

This study utilized a mixed methods approach where Indigenous knowledges and processes guided data gathering which raised a number of opportunities for further research, both in terms of theory development and concept validation. There is very little research that examines how radio can be used as a tool for health communication when it is approached from an Indigenous process.

From head to heart study - How ceremony can support health leaders to make the connection

Stephanie Van Haute^{1,2,3} Elder Mary Wilson⁴ Monica Cyr^{1,2,6} Donna Martin¹ Annette Schultz¹

¹University of Manitoba, ²Manitoba Metis Federation, ³Manitoba HIV Program, ⁵Canadian Institute for Health Research (CIHR) Indigenous People's Health Institute, ⁶Aboriginal Health and Wellness Centre of Winnipeg

Objectives

Using cultural teachings and ceremony to guide our health research, both disrupts dominance of western approaches and supports decolonizing efforts within our health systems. In this presentation, we focus on our research methods to share how ceremony can get to the heart of the matter.

Methods

In the fall 2019, we are gathering 5-8 health leaders to share their stories of promoting Indigenous self-determination and reconciliatory practices while working from within the colonial structure of current health systems in Manitoba, Canada. After an initial one on one interview is completed, these storytellers will be invited to participate in ceremony, which consists of a sharing circle format and will aim to address all aspects of the individual's story - heart, mind, body and spirit.

Lessons Learned

Guided by Elder Wilson, and drawing on the teachings of M'psiun (Medicine Wheel), imbalances of the four doorways and potential medicines to help regain balance within each of the storytellers' experiences will be summarized and shared.

Implications

Culture becomes an intervention to promote wellness and healing of all who touch the health system; including health leaders. Globally, Indigenous people face extreme disparity on virtually every measure of health and wellbeing when compared to the general population. From an Indigenous perspective, all things relate to the spiritual realm. Health disparities will not be effectively addressed unless those who practice within the healthcare system embrace a culturally responsive paradigm - one that acknowledges that Indigenous perspectives promote healing whereas Western medicine focusses on treating illness.

Developing an Aboriginal health, wellbeing and safety evaluation framework

Margaret Kelaher¹, Joanne Luke¹, Ebony Verbunt¹, Muriel Bamblett², and Gabrielle Johnson²

¹University of Melbourne, ²VACCA: Victorian Aboriginal Child Care Agency

Objectives

The Victorian Department of Health and Human Services (DHHS) have recognised that to advance Aboriginal self-determination in health, wellbeing and safety, structures of power need to be interrogated – with all stages of the program cycle, including evaluation, being Aboriginal-led. The objective of this project was to deliver an Aboriginal-led Aboriginal health, wellbeing and safety evaluation framework for DHHS, informed by DHHSs existing health plans, literature review and consultative process.

Methods

The Victorian Aboriginal Child Care Agency (VACCA), an Aboriginal Community Controlled Organisation (ACCO) led the project whilst The University of Melbourne played a supportive role. VACCA conducted state-wide consultation with 241 people, of whom 89% identified as Aboriginal. Notes and transcripts from consultations were thematically analysed and informed Aboriginal-defined indicators of 'success', across the areas of governance and leadership; cultural safety; system and service reform; workforce; individuals families and communities and; data and knowledge.

Lessons learned

Aboriginal indicators of success strongly aligned with the principle of self-determination. Indicators of system change were around privileging Aboriginal voices in decision-making and Aboriginal organisations in program delivery. Connection to cultural determinants of health were across a number of indicators, affirming their importance for Aboriginal physical, social, emotional and cultural wellbeing.

Implications

The inclusion of Aboriginal voices in the development of the Aboriginal health, wellbeing and safety evaluation framework means priorities important to Aboriginal people will be addressed in forthcoming evaluations. This will improve the benefits of evaluation for Aboriginal people, particularly through improved policy and programs.

A Scoping Review of Indigenous People Heart Health Literature from Australia, Canada, New Zealand, and the United States: Lets Discuss Epistemic Challenges

Annette Schultz¹, Moneca Sincliare¹, Janice Linton¹, Elizabeth McGibbon²

¹University of Manitoba, ²St. Francis Xavier University

Objective

To conduct a scoping review of published health literature to map the diversity of worldviews underlying evidence informing our understanding of adult onset coronary artery disease among Indigenous Peoples in Australia, Canada, New Zealand, and the United States.

Methods

Arskey and O'Malley guided our scoping review approach. We systematically searched multiple databases commonly used by healthcare communities to inform practice for articles published between 2004 and 2017. There were 150 eligible for inclusion after a two-step review process. Data extraction focused on identifying underlying worldviews driving the study (western worldviews: biomedical, socio-cultural, critical theory; or an Indigenous worldview) and identifying problem-based versus solution-based approaches.

Lessons Learned

Our review shows a distinct over-emphasis and bias toward bio-medical western perspectives and problem-based approaches. Findings are presented by year and country to demonstrate trends over time. As well, use of a quadrant analysis map displays the colonized reality of our collective knowledge-based informing practice, policy, and research contexts, and can also demonstrate a different reality.

Implications

In Canada, the 2015 Call for Actions issued by the Truth and Reconciliation Commission challenged healthcare leaders. For those involved in healthcare service and policy-making the challenge is to take responsibility for reconciliation by cultivating a collective understanding of health that considers the persistent impacts of historical and ongoing colonization, and recolonization. Yet, our ability to cultivate this collective understanding of health is dependent on the base of evidence available to health leaders, and in particular, the diversity of worldviews informing the evidence being produced.

(249/250 words)

The cost-effectiveness of Stereo-electroencephalography for people with refractory epilepsy: a decision model analysis

Hannah E. Carter¹, Peter Jones², Sasha Dionisio²

¹Australian Centre for Health Services Innovation, Institute of Health and Biomedical Innovation, Queensland University of Technology, Australia

²Advanced Epilepsy Unit, Mater Centre for Neurosciences, Queensland, Australia

Objective:

Stereo-electroencephalography (SEEG) is a promising diagnostic technique that is able to localise the focal point of seizure activity in patients with refractory epilepsy who would otherwise not be eligible for surgery. The objective of this study was to determine the long term cost-effectiveness of SEEG.

Methods

A decision model was developed to compare the costs and health outcomes associated with SEEG, as compared to usual care with anti-epileptic drugs. Data on patient clinical outcomes was obtained from the Mater Advanced Epilepsy Unit. A ten year time horizon was adopted and direct health care costs were valued from the perspective of the Australian health care system. Patient health benefits in terms of quality adjusted life years (QALYs). A probabilistic sensitivity analysis was conducted to determine the impacts of uncertainty in the model parameters.

Lessons Learned

The base case analysis produced an incremental cost-effectiveness ratio for SEEG of \$22,925 per QALY, falling below the cost-effectiveness threshold of \$28,000 per QALY. The probabilistic sensitivity analysis indicated there was a 79% chance of the technology being cost-effective once uncertainty in the data was taken into account.

Implications

In Australia, SEEG is not reimbursed under current public funding mechanisms and a large treatment gap exists. This study provides evidence to suggest that SEEG represents a high value use of health care resources when the long term costs and consequences of epilepsy are taken into account. This points to the need for a new DRG code to be created for this procedure.

Economic Evaluation of the Australian Contraceptive ChOice pRoject (ACCORd)

Marion Haas¹, Richard De Abreu Lourenco¹, Milena Lewandowska¹, Cathy Watson, Kirsten Black², Angela Taft³, Jayne Lucke⁴, Kevin McGeechan⁵, Kathleen McNamee⁶, Jeffrey F Peipert⁷, Danielle Mazza⁸

¹Centre for Health Economics Research and Evaluation, University of Technology Sydney

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³The School of Nursing and Midwifery, La Trobe University

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⁵The School of Public Health, University of Sydney

⁶The School of Clinical Sciences, Monash University

⁷Department of Obstetrics and Gynaecology, Indiana University

⁸The School of Primary and Allied Health Care, Monash University

Objective: We evaluated the cost-effectiveness of a “LARC-First” intervention, designed to increase GPs’ prescribing of long acting reversible contraception (LARC).

Methods: A Markov model was developed to compare LARC-First with usual practice assuming three mutually exclusive states, LARC, oral contraception (OC) and a “non-medical approach”. Data on efficacy in terms of contraceptive uptake, costs and quality of life were taken from the ACCORd trial (Mazza et al 2016). The probabilities of contraceptive failure and pregnancy outcomes were based on published literature (Trussell et al 2014). Within trial results (12 months) were extrapolated over a 10 year time-horizon. Sensitivity analyses of key inputs were conducted. Model outputs were expressed as the cost per quality adjusted life year (QALY) and cost per unintended pregnancy (UP) avoided.

Lessons Learned: Over 10 years, compared to usual practice, initiating contraception through LARC First resulted in fewer UP (2 vs. 5) and higher total costs (\$1,114 vs. \$930). The incremental cost-effectiveness ratio of LARC-First versus usual practice was \$17,774/QALY gained and \$4,600/UP averted. Results were most sensitive to the probability of contraceptive failure (both OC and LARC), probability of pregnancy-related health care services utilization and the inclusion of the costs of the implementation of the LARC-First intervention.

Implications: From a health-care provider perspective, LARC-First is cost-effective compared with usual practice. This arises due to increased LARC uptake which is likely to generate cost savings associated with reduced UP-related expenditure.

Cost-effectiveness analysis of ventricular assist devices used as a bridge to transplant in patients with end-stage heart failure

Sopany Saing¹, Naomi Van Der Linden², Christopher Hayward³, Stephen Goodall¹

¹Centre for Health Economics Research and Evaluation, University of Technology Sydney

²Erasmus School of Health Policy & Management, Erasmus University Rotterdam

³St Vincent's Hospital Sydney

Objective

The gold standard treatment for end-stage heart failure is heart transplantation (HTx). Restricted supply of donor hearts means that patients join a wait list. Those deteriorating while waiting are bridged to transplant with a left ventricular assist device (VAD). This study estimates the cost-effectiveness of the current VAD programme in Australia.

Methods

A state-transition cohort Markov model was developed in TreeAge with a time horizon of 20 years. The model included 4 alive health states ('Wait list', 'Removed', 'Post-VAD' and 'Post-HTx') and 2 dead states. Costs were estimated from hospital records of a retrospective cohort (n=77) from St. Vincent's Hospital Sydney (SVHS). Transition probabilities were estimated from patient data from SVHS and published registries. Quality of life was based on the distribution of New York Health Association status per health state.

Lessons Learned

The model demonstrated that the current VAD programme led to more deaths avoided and quality adjusted life years gained compared to a HTx only programme. While the programme was not considered cost-effective using current thresholds, it could be considered acceptable based on life-saving criteria.

Implications

This cost-effectiveness study of life-saving therapies may underestimate societal benefit. Over the past few decades, the number of heart transplants have risen and transplant services must prepare this demand. VADs can "buy time" for patients, however the success of VADs increases the pool of transplant candidates. The funding differences between devices and organ transplants mean it may not be possible to increase VAD supply until lower cost versions become available.

What attributes of interventions for osteoarthritis drive preferences? A discrete choice experiment involving diverse stakeholder groups

Jason Chua,¹ Paul Hansen,² Andrew M. Briggs,³ J. Haxby Abbott¹

¹Centre for Musculoskeletal Outcomes Research, University of Otago, New Zealand; ²Department of Economics, University of Otago, New Zealand; ³School of Physiotherapy and Exercise Science, Curtin University, Australia

Objective

To discover the relative importance of the attributes of interventions for osteoarthritis (OA) and to evaluate whether stakeholders' preferences can be explained by sociodemographic characteristics.

Methods

Between November 2017 and July 2018, a convenience sample of relevant OA stakeholders (N=178; mean[SD] age 53[13] years; 114 female: 63 consumers, 79 providers, 24 policy-makers and 12 OA experts) completed a discrete choice experiment (DCE). The DCE revealed stakeholders' preference weights for eight attributes characterising OA interventions identified in an earlier study of ours: accessibility(Acc), cost(Cos), duration of effect(Dur), effectiveness(Eff), quality of evidence(Qua), recommendation(Rec), risk of mild harm(RMi) and risk of serious harm(RSe). To assess differences in the mean weight of attributes assigned by different stakeholder groups, Dunn's test was used. Fractional multinomial logit (FMNL) was used to evaluate the magnitude of association between the sociodemographic characteristics of the stakeholders against the eight attribute weights.

Lessons learned

The ranking of the attributes in decreasing order of relative importance (mean weights in parentheses) was: Rec(0.190), Qua(0.176), Eff(0.150), Dur(.132), RSe(0.128), RMi(0.094), Cos(0.066), Acc(0.063). Dunn's test detected significant but small differences for the Eff, RMi and Qua attributes (≤ 0.034). The FMNL model revealed small differences after accounting for other sociodemographic characteristics between the three attribute weights Dur, Qua and Rec, and stakeholder group (≤ 0.058).

Implications

Some statistically significant associations were detected among stakeholder groups, but these associations are unlikely to be meaningful in practice. This absence of differences implies that preferences are unlikely to be a barrier to implementing evidence-based OA interventions.

Estimation of the friction period in Australia

Kathleen Manipis¹, Philip Haywood¹, Paul Hanly², Rosalie Viney¹, Stephen Goodall¹, Alison Pearce³

¹Centre for Health Economics Research and Evaluation, University of Technology Sydney, ²National College of Ireland, ³Sydney School of Public Health, The University of Sydney

Objectives

When a person is unable to work due to illness a consequence is lost productivity. This is an important component of a societal perspective in economic evaluations. One method to value lost productivity is the friction cost approach (FCA) which estimates lost productivity based on the time to replace an employee (the friction period (FP)). However, no Australian estimates of the FP and associated costs are available, limiting applicability of FCA. The objective was to estimate the time and costs of replacing an employee in Australia.

Methods

Staff responsible for recruitment in businesses across Australia were surveyed (N=409). Respondents reported recruitment time and costs for management and non-management staff, and team dynamics. The FP was decomposed into three periods, the: recruitment decision, recruitment period, and training period. Descriptive statistics of the FP, work elasticity, and the multiplier and compensation effects of teamwork were calculated.

Lessons learned

The time taken to replace a worker was 9.2 weeks for both a manager and a non-manager. Costs to replace a manager were higher (\$3,331) than those replacing non-managers (\$2,209). Multiplier and compensation effects were consistent with the literature, for example as time off work increased, there was an increasing impact on other employees' productivity, particularly for absent managers.

Implications

Consistent with low unemployment, the Australian FP is generally lower than other studies, where the FP is assumed (rather than measured) to be three months. This has implications for economic evaluations where productivity losses of new health interventions may be overestimated.

Translation of a health service innovation for older people: Implementation of the Geriatric Emergency Department Intervention into a new emergency department

Marianne Wallis¹, Alison Craswell¹, Elizabeth Marsden^{1,2}, Andrea Taylor^{1,2} and Adrian G Barnett³

¹University of the Sunshine Coast, ²Sunshine Coast Hospital and health Service, ³Queensland University of Technology

Objectives

To compare the effects on health service outcomes, of the GEDI model of care (nurse-led sub-specialty care in the emergency department (ED)) in the original implementation site with its effects at a newly commissioned ED in a new hospital in the same health service.

Methods

Multiple regression models were used to analyse the data. We examined the impact of being seen by the GEDI team on patients' ED and hospital lengths of stay, in-hospital death, readmission for same cause up to 28 days, re-presentation for any cause up to 28 days, and cost. The effect of GEDI may vary by hospital, so we used an interaction between the GEDI nurse and hospital. The models controlled for a variety of patient and clinical variables, such as, age, gender, modified diagnostic code, mode of arrival and triage priority.

Lessons learned

For older people (70 years and over) who presented to the ED, being seen by GEDI hastened time to discharge (Hazard ratio: 1.24, CI 1.16 to 1.32, 95%) and resulted in a shorter length of stay if admitted (-0.29 days, CI -0.44 to -0.12, 95%). Regardless of being seen by GEDI, mean patient costs at the new hospital were markedly higher than those at the hospital where the intervention was developed.

Implications

Translation of evidence-based interventions such as GEDI into new environments can be successful. Further analysis of the costs of operating new, high-end facilities and the relative gains associated with these environments is warranted.

Promoting Value-based care in Emergency Departments – The PROV-ED Project

Louise Cullen¹, Andrew Hobbins-King², Tanya Milburn³, Sarah Ashover³, Sara Berndt³, and Danielle Deskins³

¹Royal Brisbane and Womens Hospital, ²Sunshine Coast University Hospital, ³Metro North Hospital and Health Service

Objectives

The PROMoting Value-based care in Emergency Departments (PROV-ED) Project supports widespread implementation of established clinical redesign initiatives to improve value-based care of patients presenting to Emergency Departments across Queensland Health (QH). It is a state-wide initiative, funded by Clinical Excellence Queensland's Healthcare Improvement Unit and supported by the Queensland Emergency Department Strategic Advisory Panel (QEDSAP).

Methods

Facilitating the adoption of successful piloted initiatives from across Queensland, PROV-ED enables dissemination of innovation beyond hospital and HHS boundaries and overcomes the inherent QH 'silos', resulting in statewide improvements.

Benefits:

- Improved patient care
- Improved staff wellbeing
- Improved service line efficiency
- Cost savings

The project also builds local capacity for health service redesign and quality improvement across QH through multidisciplinary clinician engagement, workforce skills development and creation of a model for widespread implementation of initiatives.

Selection of initiatives involved a statewide expression of interest. Submissions were received with 16 shortlisted to present a 3-minute 'pitch' at a 'shark-tank' like "Pitchfest". The panel then selected six initiatives for statewide rollout.

Lessons Learned

The Project follows on from the highly successful ACRE (Accelerated Chest pain Risk Evaluation) Project, which resulted in widespread improvements in chest pain assessment across QH facilities. PROV-ED leverages the implementation methodology used and lessons learnt through ACRE, as well as capitalises on the knowledge and experience of the established ACRE Project Team.

Implications

Enabling significant opportunity to create ongoing, meaningful change, reducing duplication and consolidating resources via the dissemination of innovative ideas across facility and HHS boundaries, resulting in meaningful benefits for patients, HHSs and QH.

Emergency Clinician perspective on Frequent Presenters to the Emergency Department

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Objective

Frequent presenters to the Emergency Department are an underserved population yet there is currently no consensus around what defines a patient who frequently presents, with definitions ranging from 2 to more than 10 presentations per year. This study aimed to qualitatively understand emergency clinician understanding and perceptions about the issues and current practice around patients who present frequently.

Methods

A survey was sent to all Emergency Directors at level 3 to 6 hospitals in New South Wales, Australia. The Directors were asked to disseminate the survey to consultants and registrars in their departments. Nurse Unit Managers overseeing level 3 hospitals were also invited to contribute to the survey. The survey was sent out using Survey Monkey and was analysed in Excel and Nvivo.

Lessons Learned

There were 210 responses in total with a 20% overall response rate. The majority of the respondents were Consultants (53%), followed by Registrars (35%) and Directors (11%). Almost all the respondents (99%) identified a cohort of frequent presenters at the hospitals in which they work. A total of 56% of respondents believed a numerical definition for frequent presenter was important and the majority of respondent believed 9 to 12 presentations per year was the most relevant definition (45%).

Implications

Clinician input is vital into future policy development around frequent presenters to the Emergency Department. A consensus definition of frequent presenters to ED is strongly called for amongst clinicians, with strong support for the benchmark of 9-12 presentations per year.

Health Economic impact of the Geriatric Emergency Department Intervention

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Objectives

The Geriatric Emergency Department Intervention (GEDI) model of care has been reported to improve health-service related patient outcomes without increasing mortality or same cause re-presentation (Wallis et al., 2018). We aimed to conduct a cost analysis to compare the cost of care for cohorts of adults aged 70+, with and without access to GEDI, while controlling for a range of other demographic and clinical variables

Methods

Participants were all people aged 70 years and over who presented to the ED from January 2012 to August 2016. The time periods studied were pre-GEDI 2012, developing GEDI 2013 to Aug 2015, full GEDI Sept 2015-Aug 2016. We compared 1) ED LOS and costs, 2) risk of admission, and 3) hospital LOS and cost between those seen by GEDI versus those who were not for the three time periods.

Lessons learned

The GEDI service resulted in average cost savings per ED presentation of \$35 [95% CI, \$21, \$49] and savings of \$1469 [95% CI, \$1105, \$1834] per hospital admission. This saving was driven by a shorter LOS in the ED and LOS if admitted to hospital. While other changes occurred in the health service over this period, survival analysis of the same data found the passage of time had less of an effect than the intervention. This supports the assertion that most of the cost reduction was due to the impact GEDI.

Implications

GEDI appears to be a cost effective approach to care for older people presenting to the ED without compromising health outcomes.

Is there unwarranted variation in the provision of bariatric surgery in New Zealand's Northern Region?

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Objective

Nearly a third of NZ adults have obesity and there are inequities in the burden of this condition by ethnicity and socioeconomic deprivation. Bariatric surgery is currently the most effective intervention for long-term weight loss and improvement in obesity-related complications. The number of publicly funded bariatric surgeries is significantly lower than the number of people who could potentially benefit from this intervention. Recent research has indicated variation in the rates of bariatric surgery by district and ethnicity. The extent to which this variation is unwarranted is unclear because important potential confounders such as comorbidity were not taken into account. We propose to address these limitations by determining whether age, sex, ethnicity, socioeconomic status or district are independently associated with bariatric surgery after adjustment of BMI and comorbidities among adults in the northern region of NZ.

Methods

We will be undertaking a prospective cohort study, using data from the approximately 400,000 adults in the PREDICT cohort. This cohort has been generated through cardiovascular risk prediction in general practices, primarily in the Auckland and Northland regions of NZ. Data from the risk prediction are linked using an encrypted identifier to regional (Testsafe) and national (e.g. NMDS) datasets. For this analysis we will be modelling time to first publicly funded bariatric surgery between January 2010 and December 2017 using Cox proportional hazard regression, and adjusted for age, sex, ethnicity, socioeconomic status, district, BMI and comorbidities.

Lessons Learned

We will present the findings of our research, which will represent the most robust analysis to date of whether there is unwarranted variation in the provision of bariatric surgery by age, sex, ethnicity, SES or district, after adjustment of BMI and comorbidities, in the Northern region of NZ.

Implications

Health services globally and in NZ have a legislative requirement to facilitate equity in access to appropriate care in a timely manner. To reduce inequities in access, knowledge of where they exist is essential. This research will build on earlier research to provide a more robust understanding of whether there are inequities in the provision of public funded bariatric surgery in the Northern region of NZ.

Trend and variation in rates of tonsillectomy procedures among children and young adults across New South Wales

Hassan Assareh¹, Huei-Yang Chen¹, Kim Sutherland¹

¹ Agency for Clinical Innovation

Objectives

Tonsillectomy is one of the most common operations performed on children in New South Wales (NSW). There are concerns across developed healthcare systems that tonsillectomies are overused. We examined the trend of tonsillectomy rates and its variation across NSW.

Methods

Using NSW Hospital Performance Dataset (NSW Ministry of Health) and population projections, we calculated tonsillectomy rates among all NSW residents aged under 25 years across 153 Local Government Areas (LGAs) over 2008-2017. Spatio-temporal Bayesian modelling was employed to account for differing population structure while examining contributing factors and areal variations.

Lessons Learned

Over a 10-year period, 138,540 tonsillectomies were performed, corresponding to a rate of 582 per 100,000 population. The rate increased by 11% over the period (lowest at 2009:538; highest at 2016:614). Private hospitals accounted for 62% of procedures and had a greater increase compared to public hospitals (26% versus 18%). The rate was the highest among young children (0-9 years), and dropped by 62% and 77% for those aged 11-19 years and over 20, respectively. Males (RR=1.19) and those living in deprived areas (RR>1.52) had higher rates.

The rates varied significantly across LGAs (RR:0.05-2.56) with an average of 90% difference in rates between LGAs with high versus low rates. The geographical variation was not explained by factors examined and remained stable over time.

Implications

Despite questions regarding the appropriateness of tonsillectomy, rates in NSW are increasing and a substantial variation across areas exists. This warrants examination of service provision and clinical decision-making to ensure delivery of evidenced-based value care.

Hysterectomy rate variation in NSW

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¹Agency for Clinical Innovation

Objectives

Non-cancer related hysterectomy rates in New South Wales are relatively high compared to those seen in many other developed healthcare systems. This study focuses on rates of hysterectomy performed for heavy menstrual bleeding, uterine prolapse and fibroids – presenting complaints for which there are more conservative treatment options available - and aims to explore levels of variation across the state.

Methods

De-identified patient data between 2008/09-2016/17 were extracted from Hospital Performance Dataset (HoPeD), NSW Ministry of Health. Hysterectomies and endoscopic endometrial ablations (EEA) were identified using ACHI procedure codes while patients with heavy menstrual bleeding (HMB), cancers, prolapse and fibroid were identified by the principal diagnosis. Rates were standardised to the 2001 Australian population for comparison.

Lesson Learned

Both the number of hysterectomies and their main cause remained stable between 2008/09-2016/17 (in 2016/17, bleeding: 25%, cancer: 15%, Fibroid: 18%, Prolapse: 16% and others: 25%). Of those of women who had EEA, the proportion of women who underwent hysterectomy due to bleeding increased over the study period (3% in 2008/09 and 13% in 2016/17). In 2016-17, ALOS was longest for hysterectomies for cancer (5.6 days) and shortest for heavy menstrual bleeding (3.1 days). While the rate of cancer-related hysterectomies vary little by LHD (1.7 times between lowest and highest rates), there is considerable variation in the rate for heavy menstrual bleeding (7.7 times).

Implications

Significant regional variation in hysterectomy rates at the LHD level in NSW was identified, particularly for HMB-related rates. Further examination is needed to explore reasons behind this variation.

Exploration of deviations from trauma transfer protocols in paediatric patients in New South Wales: a retrospective registry data study 2010-2016

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Objectives: The objective of this study was to explore the patterns of paediatric trauma patients' transfers comparing the actual practices with the transfer protocols and to explore the impact of potential deviations on patient outcomes.

Methods: We used the NSW Collector trauma registry data including all patients aged 15 years and younger with an Injury Severity Score (ISS) greater than 12 between 2010 and 2016. For ambulance transfers, a transfer was considered as deviation, if the patient was not transferred from the scene-of-injury to the highest level of trauma hospital within 60 minutes travel time. For air retrievals, a deviation was defined as not taking the patient to closest hospital of the same or higher level by aerial distance. Deviation for between-hospital transfers were defined as any referrals beyond the designated catchment areas.

Lessons learned: From the total 1622 assessed transfers there was 34.3% deviation, the majority caused by taking the patients to a paediatric trauma services as opposed to a closer major trauma service. Deviated patients transported by ambulance had a shorter length of stay (3 vs. 5 days, $p = 0.01$) and also a lower number of ICU days (1 vs. 2 days, $p = 0.02$).

Implications: Patients who were transferred to a paediatric centre as opposed to a closer major trauma service had a better outcome. The updated NSW T1 Field Triage protocol now mandates that paediatric patients be taken to paediatric trauma centres over major trauma centres, where possible. There is a need for further investigations of other patterns of deviation identified in this study.

Strengthening primary care for children: Cost analysis of a new pilot model to integrate paediatricians within general practice.

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Objective

This pilot, the first in Australia, tested a new model of care that integrates paediatricians in GP clinics. The aim was to examine the cost impact of reducing referrals to hospital outpatient clinics and emergency departments (EDs), and compare this to usual care.

Methods

Two paediatricians worked within five GP practices over a 12 month period. The model comprised: (1) weekly paediatrician-GP co-consultation sessions at the GP practice; (2) monthly case discussions; and (3) phone and email support for GPs. We conducted a cost analysis of the program by calculating a net cost of running the model of care including estimated savings from avoided outpatient and ED visits. We also examined an idealised implementation scenario.

Lessons Learned

The new model of care costs an additional \$107,606 compared to usual care, or an additional \$172 per child seen in co-consults (n=624). The majority of implementation costs were borne by the study funder, meaning the model provided cost savings for state government/hospitals (outpatient and ED savings: \$72,099); federal government (MBS billing savings: \$95,566); and, importantly, savings for families (reduced travel time and days off work: \$153,216). In an idealised implementation, this model has the potential to be cost-saving to families and the health system; estimated to be \$9,684 cheaper per GP clinic running the model.

Implications

This innovative, integrated model of care has the potential to be cost-saving for families as well as state and federal governments. Additional qualitative benefits to providers and patients are also observed and presented separately.

Hospital morbidity profile of children involved in the child protection system: A long-term birth cohort study from infancy to early adulthood

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Objective

To describe the frequency and reason for hospitalisations by lifetime child protection system (CPS) involvement

Methods

Using linked administrative data of 617,234 children born from January 1 1986 to June 30 2017 we calculated cumulative incidence, cumulative count, and annualised mean counts of hospitalisations by level of CPS involvement and described the most frequent reasons for hospitalisation.

Lessons Learned

Cumulative incidence of hospitalisations at 16.5 years was 58% for those with no CPS involvement and between 72% and 88% for different levels of CPS involvement. Mean cumulative count of hospitalisations was highest for those ever-placed in out-of-home care (1.3 at 12 months increasing to 7.7 by 16.5 years, >3 times the rate of children with no CP involvement). Annualised mean number of hospitalizations was significantly higher for all categories of CPS involvement compared with no CPS involvement across all ages. Most frequent reasons for hospitalizations were similar across CPS categories to age 12, from early adolescence mental health and injury were more frequent reasons for hospitalization among individuals with CPS involvement.

Implications

Across childhood and into early adulthood, persons with any CPS involvement had higher frequency of hospitalisations than those without CPS involvement, increasing monotonically by severity of implied child maltreatment history. The substantial size of the excess risk highlights the vulnerability of persons with child maltreatment history and the urgency of implementing effective preventive strategies. More frequent hospitalizations for mental health and 'injury, poisoning or toxic effects of drugs' confirms the potentially preventable nature of these excess hospitalizations.

Childhood health service use and cost across care sectors for children born with single-heart ventricle: evidence from the Australian and New Zealand Fontan Registry

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2 Royal Children's Hospital, Melbourne

Objectives: The Fontan procedure is the final in a series of staged palliations for single-ventricle congenital heart disease. The population of patients with Fontan is projected to grow over the next 20 years to over 2000 patients. The objective of this research was to quantify patient's health service use and cost across care sectors.

Methods: 1395 patients were enrolled in the Registry as at 2015 and data-linkage to hospital and Medicare was performed. A series of analyses were undertaken to estimate the use and cost of primary, secondary and hospital care across childhood. Analyses utilised dates of services, diagnosis-related group (DRG) codes or Medicare item codes from the administrative datasets. Service use and costs were described for each year of patient age.

Lessons Learned: From birth to 18 years, Fontan children on average had a total of 123.8 visits to GP, 49.5 visits to medical specialist and 252.2 pharmaceutical scripts. The corresponding out-of-hospital medical and pharmaceutical care costs were \$22,273 and \$5,153 respectively across childhood. In terms of inpatient care, an average of 164 inpatient days per child across childhood was estimated costing \$314,896. Over 40% of this total inpatient cost was incurred after the Fontan procedure.

Implications: The linkage of administrative to registry data enabled a thorough investigation of service use and costs for Fontan patients. This strategy allowed us for the first time to put a cost value on a specific condition, and to identify the spread of care requirements necessary to provide care for this growing population.

0-18 years	Use (days/ visits/ scripts)	Cost (2017 AU\$)*
Hospital care	164 days	314,896
-birth to Fontan	82 days	176,943
-following Fontan	82 days	137,953
Out-of-hospital Medical care		22,273
-GP	123.8 visits	6,116
-Medical specialist	49.5 visits	5,113
-Allied health	10.4 visits	1,090
-Diagnostic investigations	63.6 visits	7,134
-Pathology	111.9 visits	1,659
-Other	-	1,161
Out-of-hospital pharmaceutical care	252.2 scripts	5,153
TOTAL COST		342,322

What's The Catch: barriers and enablers to collecting urine samples from young pre-continent children in primary care

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Context:

Urinary tract infections (UTI) are common in young children. Many febrile children require a urine sample to diagnose or exclude UTI, but collecting urine from pre-continent children (who cannot void on request) is challenging. Current collection methods all have limitations. Choice of collection method must balance time, resources, invasiveness, reliability, and contamination. International guidelines have conflicting recommendations for the optimal collection method. Recommendations are based primarily on hospital-based studies, and may not be suited to primary care settings.

Objective:

To understand the barriers and enablers to collecting urine samples from young pre-continent children in primary care.

Methods:

An exploratory qualitative study. Semi-structured interviews explored the topic with Australian General Practitioners and Practice Nurses until data saturation was reached. Interviews were audio-recorded, transcribed verbatim, coded, and underwent content and thematic analysis.

Lessons Learned:

Twenty-five clinicians were interviewed. Non-invasive collection methods (Clean Catch, Urine Bags), were strongly favoured. Invasive methods (Catheterization, Suprapubic Needle Aspiration) were rarely performed, and considered more suited to unwell children in hospital settings. Key barriers to collection included lack of time and space in clinics, and parental and clinician preference for non-invasive methods. Key enablers were parental motivation, education about collection processes, and use of voiding stimulation techniques.

Implications:

This study has identified key barriers and enablers to inform education, policy and guideline recommendations for urine sample collection from pre-continent children in primary care. Guidelines must consider the primary care context to ensure recommendations are relevant and suited to real world practice.

An evaluation of a large scale school eye health program for Indian children: A qualitative approach

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The REACH research group

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Objective

To evaluate the Refractive Errors Among Children (REACH), a large scale school eye health program, focused on refractive errors for Indian children aged 6-18 years which was delivered to over 2 million children in 9,384 schools in five Indian states supported by 6 tertiary eye care hospitals and funded by Qatar development fund and Orbis International.

Methods

100 semi-structured interviews were conducted with stakeholders who were purposively sampled (32 school and program staff, 68 children and their parents). The *Reach Effectiveness-Adoption Implementation Maintenance (RE-AIM)* framework informed the thematic analysis of the interviews.

Lessons learned

The REACH program implementation instigated for progressive modelling driven by the local geographical and cultural contexts over its implementation years (July 2016 to June 2019). A holistic approach of the program design enhanced the scope and clinical relevance. Program outcomes across the *RE-AIM* components were guided by locally adopted strategies such as establishing trust through long term engagement with schools and providing timely refractive services on the day of screening improved the *reach and effectiveness* of the program. Issues related to *adoption* and *implementation* such as resource management and societal impact were identified and tailored to the local settings. Stakeholders reported cost versus benefit, public and policy relevance, awareness and advocacy as factors of *maintenance* of the program.

Implications

These results imply that locally adopted processes for the future school eye health program implementation is required to sustainably implement school eye health programs and improve its outcomes in resource limited settings, thereby strengthening the health systems and improving equity.

The effect of medical workforce regulation on doctors' wellbeing: a natural experiment

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Objectives

In 2013, the Medical Board of Australia (MBA) made the announcement that international medical graduates (IMGs) who failed to pass the Australian Medical Council's clinical examination within 3 years will face de-registration. Whilst this was not a new regulation, prior to this announcement its enforcement had been minimal. In this study, we investigated the effect the announcement might have on the personal well-being (general life satisfaction) of targeted IMGs.

Methods

A quasi-experimental study design using 8-waves (2009-16) of survey data from the MABEL (Medicine in Australia: Balancing Employment and Life) longitudinal study. The inclusion criteria were newly employed IMGs of non-English Speaking backgrounds; 1,673 and 4,867 responses from the treatment (limited registrants) and comparison (full registrants) groups respectively. We assessed general life satisfaction using a 10-point (1-10) scale. A random effect linear regression model with difference-in-differences (DiD) estimator was used to determine the post-announcement effect on well-being.

Lessons learned

Our preliminary results indicated that the announcement was associated with a decline in the average life satisfaction of limited registrants, showing the effect of regulation on IMGs' personal wellbeing. More specifically, mean satisfaction among limited registrants (treatment group) has declined from 7.14 to 6.87 (p -value<0.001) in the post-announcement period.

Implications

While registration decisions are often made in light of public protection, there is a need to consider the potential effect of such decisions on the well-being of targeted professionals. Providing adequate support to newly employed IMGs with limited registration during preparation stages for clinical examinations may contribute positively to their well-being.

The flexibility of stable healthcare teams: a mixed methods study of emergency doctors and nurses

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Objectives

The study's objectives were to measure the distribution of tasks within a team of emergency doctors and nurses and explore whether they used any role overlap to share tasks in response to changing demand, a form of flexibility known as 'back-up behaviour'.

Methods

An explanatory sequential mixed methods design involved a team of doctors, nurse practitioners and registered nurses in the Fast Track unit of a Sydney emergency department. Work observations comprising 151 hours of quantitative time study data and qualitative fieldnotes were followed by 19 semi-structured interviews.

Lessons Learned

The time study identified how clinicians' roles were specialised, and where they overlapped. The qualitative observations and interviews confirmed the team used this role overlap to engage in back-up behaviour, sharing tasks to prioritise, and reprioritise each other's roles according to workload demands. Failures in back-up behaviour such as errors, delays and task duplication, were observed to occur less often when the team comprised experienced, familiar clinicians.

Implications

This study found healthcare professionals were *more* flexible in performing their tasks than is often supposed but individual team members were much *less* interchangeable than current approaches to healthcare staffing assume. There is a growing recognition across healthcare settings of the importance of team stability for quality, safety and efficiency. If teams and teamwork are central to the future of patient care, then traditional, monoprofessional staffing practices require a radical rethink.

What drives and motivates junior medical doctors in choosing a medical specialty in Australia? Insights from an Outcome Driven Innovation study.

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Objective: Australia continues to confront persistent challenges linked to the geographical maldistribution of its health workforce. An important stride towards alleviating such imbalances requires a clear understanding of how, why and when medical specialties are chosen. This study investigated the factors that best predict medical career choice and assessed the most important social, emotional and functional needs shaping such choices.

Methods: The Western Australian General Practice Education and Training (WAGPET) conducted an Outcome Driven Innovation (ODI) process involving medical students, junior medical officers, registrars and fellows from a list of specialties in 2018. Detailed questions were developed with input from several health stakeholders with WAGPET's Innovation team guiding participants through the survey, discussing influences and their weight on specialty choice. Multivariable logistic regressions complemented with local polynomial regressions examined the factors associated with specialty choice.

Lessons Learned: Junior doctors choose specialties that match the internal jobs they consider and weight as important in terms of social, emotional and functional needs. Knowing what junior doctors want from their career assists health stakeholders, colleges and training organisations to attract the right candidates to each specialty which helps to alleviate workforce imbalances.

Implications: The use of a customer-centric style ODI process is innovative and provides key insights that assists workforce planners while informing junior doctors of their own needs. The diversity in the needs across specialties suggests that a "one-size fits all" approach will not be appropriate and calls for the need for strategies that best meet the specific demands of each specialty.

Hiding in plain sight: Our invisible health information workforce.

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Objective

The New Zealand health system can only realise the potential benefits of information technology with an expert workforce. We aimed to describe the demographics and employment profile of the health information workforce (HIW) in New Zealand to consider future workforce configurations and identify training needs and career pathways.

Methods

The online survey, 'Health Information Workforce Census', was released on 20 November and ran until 27 December 2018. It was customised from the May 2018 HIW Australian census. The data were analysed using descriptive statistics.

Lessons learned

Of the 454 HIW respondents about 60% were female, 82% were New Zealand citizens, and majority worked in Auckland (33%) Christchurch (15%) or Wellington (14%). Most work in permanent roles (88%) in the public health system (75%). Amongst varied roles coding (8.3%), registered clinicians (32.3%) and analysts (17.6%) were most frequent. A minority were in blended senior advisory roles (2.8%) and senior clinical roles, such as Chief Clinical Information Officers. Most had no qualification in health information (77%). In contrast, the reported highest qualifications other than health information ranged from doctorate (6.%), to Master (23%) and Bachelor (23%) degrees.

Implications

The public health sector in our major cities has a stable and varied health information workforce, although many do not have qualifications in health information. Given the rapidly changing technological environment this invisible and emerging workforce likely requires specific capacity building and training, as well as clear career paths to achieve its potential for transforming the health sector.

Using longitudinal insights to model future workforce needs for General Practice in New Zealand

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Objective

The shortage of General Practitioners (GPs) in New Zealand (NZ) is well-documented and publicised. However, we have little recent knowledge about the career intentions of recent medical graduates, how their intentions correlate with current workforce predictions, and the factors that might predict or motivate their choice of a GP career. This will be explored using longitudinal data to identify influential or predictive factors associated with an interest in GP career choice and to compare alignment of interest with workforce predictions.

Methods

Using data from the NZ Medical Student Outcome Database longitudinal tracking study (MSOD), key results from analysis of linked cohort data will be presented and discussed to establish which background factors, medical school experiences and experiences working as a doctor predict a medical graduate's interest in and intentions to pursue a career in the specialty of General Practice.

Lessons Learned

Early results indicate 31% of medical graduates at PGY3 have an intention to train as a GP, with NZ-born and NZ Māori graduates more likely to choose this career path. However, workforce data suggests this is insufficient for future need. Interestingly, those who completed a GP rotation at PGY1 were less likely to choose GP at PGY3. These results will be updated and contrasted with NZ national MSOD data, and compared to current government-projected workforce needs.

Implications

Knowing more about the factors that predict an interest in a General Practice career, and current patterns of medical graduate intentions, may help guide the various stakeholders in addressing GP shortages.

Researching health systems: developing a platform for thinking about change in primary health care.

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¹Health Services Research Centre, Victoria University of Wellington, and ²School of Population Health, University of Auckland.

Objectives

A practical example of investigating primary health care reform using a realist approach is provided. We elaborate on the recent history of primary health care reform in Aotearoa/New Zealand involving multiple goals and shifting emphases on reducing inequities. Early insights on how these changes have been interpreted in different contexts are presented.

Methods

Based on the starting premise of realist research that all programmes for change have theories embedded within them (Pawson and Tilley 1997), an initial conceptual platform was developed to cover the diversity of valued policy outcomes in primary health care. This conceptual platform was then tested in a series of realist interviews with key national informants, Māori and Pacific health leaders, Primary Health Organisations and District Health Board representatives.

Lessons Learned

Two key lessons:

1. The initial conceptual platform was useful in unpacking how primary care policy in Aotearoa/New Zealand reflects counter veiling structural powers of the state, the medical profession, and (to a lesser, but increasing extent) business interests.
2. Testing alternative and opposing ideas about how different valued policy outcomes were achieved in the form of “if-then” statements, was valuable in identifying what works, for whom, and in what contexts.

Implications

Understanding what is going on across multiple interventions designed to achieve multiple primary health care goals requires an approach that investigates different causal powers. Our initial work indicates some of the interwoven chains of causality driving change in primary health care.

Operationalising the concepts of “innovation” and “translation” for population health: insights from an empirical cross-case analysis

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Objectives

The concepts of “innovation” and research “translation” underpin multiple policy initiatives that seek to enhance and speed up clinical and population-level impacts of health and medical research. This analysis explores how these concepts are defined and operationalised within collaborations comprised of university and health system organisations, known as academic health centres (AHCs).

Methods

This analysis is part of a multi-case study project on the role of AHCs in improving population health, involving four sites in Australia and England. Qualitative data were obtained from organisational documentation, direct observation within AHC facilities and interviews with 86 AHC leaders, researchers, health system and university executives. Data analysis utilised an institutional theory framework to identify regulative, normative and cultural-cognitive forces influencing a population health role within the AHCs.

Lessons Learned

“Innovation” and research “translation” were interpreted differently among groups of stakeholders and in different AHCs. Dominant interpretations of “innovation” highlighted private industry engagement towards commercial ends, with “translation” activity often defined and operationalised through a linear, biomedical lens. These conflicted with health systems-focussed interpretations and appeared to draw attention and resources away from population health needs. The terms were sometimes used to signal population-focused intent while masking activity that served organisational self-interest.

Implications

The multiple and sometimes conflicting interpretations of the terms “innovation” and “translation” highlight their existence as vague and unhelpful concepts where their meaning is taken-for-granted rather than explicitly defined. The ubiquity of these terms within policy discourse to describe broad research impact agendas may present a risk to population-focused goals.

Alternative models to external consultancies in addressing complex health and social care challenges.

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¹Monash Centre for Health Research and Implementation, School of Public Health and Preventive Medicine, Monash University, ²Warwick Business School, University of Warwick, ³Australian Institute of Health Innovation, Macquarie University

Objectives

To understand the potential benefits and disadvantages of external consultancies in addressing complex health and social care challenges and to explore potential alternative models, including internal consultancy and hybrid models delivered through platforms of collaborative expertise.

Methods

This is a perspective piece that draws on evidence of the use of external management consultancies in health and social care, the impact of those consultancies, and the rationale for alternative or complementary models to external management consultancies.

Lesson learned

Health and social care systems challenges continue to increase in complexity with the need for transformation now clear. Yet identification of the problems and potential solutions, and more importantly implementation of sustainable improvement, is challenging. We identified the escalating use of management consultants in these settings, and the lack of transparent and accurate reporting around their use at the health or social service, state and federal government levels in Australia. We have highlighted the striking lack of evaluation and the limited evidence of any benefit from management consultancies. Finally, we show that alternatives to costly for-profit external consultancies, such as the Advanced Health Research Translation Centres and Centres for Innovation in Regional Health in Australia, provide a community of practice likely to build the necessary capacity in the health and social care workforce.

Implications

We propose that the substantive reliance on high cost external management consultancies without demonstrating value or benefit, is unsustainable. An integrative approach that embeds research and capacity building within health and social care services may be of value.

Accounting for social value in the age of the Well-being budget

Sneha Lakhotia¹

¹Wai Research, Te Whānau o Waipareira

Objectives

The objective of the study was to assess the efficacy of the Incredible Years Parenting Programme (IYP) and to measure the value of its impact.

Methods

The study follows the Social Return on Investment (SROI) methodology and is informed by the seven social value principles. The SROI framework is an evaluation tool which measures and accounts for the broader concept of 'value'. It takes a prudent approach to value the change for stakeholders of the IYP programme operated by Te Whānau o Waipareira.

Lessons Learned

This analysis provides robust evidence of the importance and impact of early intervention and parent management programmes for Māori. It highlights the outcomes experienced by the key stakeholders beyond the contractual requirements. It is essential to make social investments into programmes such as IYP - to reduce the short-term stresses and to prevent the development of the longer-term adverse outcomes associated with child conduct and parenting problems.

Implications

This study will be crucial to inform practices, strategy, and planning amidst the social impact buzz and the current Government momentum to shift focus and investment to Social well-being. It will help further the understanding and measurement of social impact within the new Living Standards Framework. It also challenges the traditional notion of value and success from outputs and financial measures, to a broader consideration value that is created by various activities.

What's equity got to do with it? Thirty years of Community Pharmacy Agreements

Paul Mackey
Deakin University

Objectives

To ascertain the effectiveness of the Community Pharmacy Agreements as a policy technique to operationalise the equity aims and objectives of the Pharmaceutical Benefits Scheme (PBS).

Methods

Six Community Pharmacy Agreements (CPAs), in place from 1990-2020, were examined using three separate lenses, comprising: equity, institutional and accountability analysis, to systematically assess and interpret each agreement. The CPAs were compared with other Commonwealth health agreements in place over the same period. Through a second stage of the research, a series of semi-structured interviews with 17 key informants provided insights into key institutional processes and tested early findings.

Lessons Learned

Designed originally by the Pharmacy Guild of Australia, the CPAs differ substantially from other Commonwealth health agreements, particularly with regard to matters of governance, accountability and transparency. The research found that these arrangements have not advanced equity but focussed primarily on matters of pharmacy viability. This principle has been pursued through the CPAs as an end in itself, rather than as a by-product of the provision of equitable and affordable access to Commonwealth-subsidised pharmacy products and services.

Implications

The governance and accountability parameters for the next CPA (due mid-2020) should be revised to ensure the agreement's primary focus is the equity objectives of the PBS. The proposed National Health Plan offers a possible framework to incorporate the CPA within broader health system settings. Under this Plan, the Council of Australian Governments or an independent overarching Commission could provide a mechanism to integrate all Commonwealth health agreements within a common institutional structure.

Melanoma and general practice: factors affecting GPs' confidence in and attitudes towards managing patients with suspected or confirmed cutaneous melanoma

Andrea L Smith,¹ Samuel Robinson,² Caroline Watts,^{2,3} Helen Schmid,^{4,5} John Thompson,^{4,6} Richard Scolyer,^{4,6,7} Andrew Spillane,^{4,6} David Gyorki,^{8,9} Victoria Mar,^{10,11,12} Rachael Morton,^{4,13} Graham Mann^{4,5} and Anne Cust^{2,4}

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Objectives

To explore how Australian general practitioners (GPs) make sense of their role in the prevention, diagnosis and treatment of cutaneous melanoma and the factors that affect their confidence in and attitudes towards managing patients with suspected or confirmed melanoma.

Methods

Qualitative study using semi-structured interviews with 23 GPs working in Australian general practices and skin cancer clinics followed by thematic analysis of the data.

Lessons Learned

Considerable variation existed in GPs' confidence in diagnosing and treating patients with suspected or confirmed melanoma and in their preferences for involvement in melanoma management. Factors affecting a GP's decision to diagnose, treat or refer operated at the macro, meso and micro levels. Macro level factors included the overlapping roles of GPs and specialists; meso level factors included the setting in which the GP worked, opportunities for informal and formal training, and access to a GP colleague who specialised in skin cancer; micro level factors included a GP's clinical interests, the site of the suspected or confirmed melanoma, clinical and histopathological features, the need to consider sentinel lymph node biopsy and patient preferences.

Implications

Given the increasing burden of melanoma in Australia, it is likely GPs will continue to play an integral role in melanoma management. It may therefore be important to consider how GPs can be supported to further develop their skills and confidence in the diagnosis and treatment of melanoma. It may also be useful to clarify points at which referral of the patient to specialist care is warranted.

Financial stress, a side effect of cancer care: A new standard for informed financial consent.

Sanchia Aranda AM^{1,2}, Annie Bygrave¹, and Kate Whittaker¹

¹ Cancer Council Australia, ² Department of Nursing, University of Melbourne

Objective

Recent reports have highlighted patients experience of out-of-pocket healthcare costs. This project aimed to identify policy opportunities to reduce financial stress related to out-of-pocket costs for people affected by cancer in Australia.

Methods

This is a collaborative initiative of Cancer Council Australia, Breast Cancer Network Australia, CanTeen and Prostate Cancer Foundation of Australia. An evidence-based policy development process was used to define the issue of out-of-pocket costs and financial stress for people affected by cancer, assess possible policy options and develop a proposed Standard for Informed Financial Consent. The acceptability and feasibility of the Standard was tested in targeted and public consultations.

Lessons Learned

Cancer patients commonly report experiencing unexpected or hidden out-of-pocket costs, or confusion about the costs of cancer care, leading to financial stress. This issue is perpetuated by financing of Australia's health system through a combination of public and private insurance, and direct patient payment. Financial stress can influence an individual's treatment decisions, leading to unsafe or sub-optimal treatment, and if left unaddressed can lead to financial hardship.

A Standard for Informed Financial Consent is a welcome concept among consumer and health professional communities as it provides both patients and doctors with a framework to discuss and disclose service fees upfront and have a conversation about the potential impact of long-term out-of-pocket costs related to the patient's care needs.

Implications

The Standard provides a consistent approach to financial disclosure and informed financial consent as a component of shared care, improving transparency of potential out-of-pocket costs to support informed decision making.

What needs to be improved to ensure interventions addressing socioeconomic inequalities in cancer-related outcomes are implemented into the real-world?

Sanchia Aranda AM^{1,2}, [Annie Bygrave](#)¹, and Kate Whittaker¹

¹ Cancer Council Australia, ² Department of Nursing, University of Melbourne

Objective

An intervention that is implemented well is more likely to be effective at improving an intended outcome. This review aimed to assess the implementation success of interventions efficacious at reducing socioeconomic inequalities in cancer-related outcomes in high-income countries.

Methods

A systematic review identified and evaluated the impact of 19 interventions addressing socioeconomic inequalities in cancer-related outcomes. Utilising Proctor et al.'s (2011) implementation science framework, the 8 efficacious interventions were assessed for implementation success in a real-world environment. Acceptability, appropriateness and cost were analysed by intervention, and each factor received a standardised rating to identify the overall implementation success of the intervention.

Lessons Learned

Several of the efficacious interventions lacked detail in design or reporting to be successfully implemented. Studies addressed socioeconomic inequalities, recruiting participants across all socioeconomic groups however, poor participant and stakeholder engagement during intervention development was a barrier for real-world success. Implementation costs of interventions were 'good-value' for money, although the impact these costs would have on health systems were not typically explored. From the evidence reviewed, only enhanced reminder letters and GP-endorsed screening invitations had potential for real-world implementation success.

Implications

While some interventions reduced socioeconomic inequalities in cancer-related outcomes within the research environment, few were designed or reported in a way that allowed for successful implementation. The specific needs of the population being targeted, and the setting in which the intervention is being delivered, including staff and resources needed, are important factors that must be detailed to bridge the gap between research and practice.

Does radiotherapy treatment for advanced cancer lead to job loss?

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² School of Medicine, The University of Sydney

² Melanoma Institute of Australia, North Sydney

³ Genesis Cancer Care, St Vincent's Clinic, Darlinghurst

Objective

Intensive whole brain radiotherapy (WBRT) for advanced cancer may produce cognitive impairment, leaving patients unable to work. We investigated the financial impact of WBRT for melanoma brain metastases, on an individual's employment status and household income.

Methods

An economic analysis was conducted alongside a multi-country randomised trial of WBRT versus Observation, following surgery for 1-3 melanoma brain metastases. Employment status and household income were measured at baseline and every 2 months for 12 months. Outcomes included changes in employment status from full-time to part-time work, and employed to unemployed, and drop in household income category (above and below country medians). Logistic regression models with repeated measures assessed the association between WBRT and employment or income.

Lessons Learned

Of 207 trial participants, mean age 61 years (range 27 and 88), 37 (18%) completed employment and 61 (30%) completed income questionnaires at baseline. Prior to randomisation, 39% patients worked full-time, 8% part-time and 53% were unemployed. At 12 months, 23%, 12% and 65% patients were employed full-time, part-time and unemployed respectively. Patient's randomised to WBRT were 2.66 times more likely to have a negative job status change (95%CI 0.99–4.32, $p<0.01$) compared with Observation. Household income at 12-months was not significantly different ($p=0.57$).

Implications

WBRT can negatively affect long-term employment status. Key strategies to reduce this impact (i.e. financial counselling, employment rehabilitation and appropriate cancer support services) could be promoted by radiotherapy services. There is a role for government to develop employee retention policies following treatment of advanced cancer.

Australian general practitioners' knowledge and attitudes about the role of sentinel lymph node biopsy (SLNB) in melanoma management

Andrea L Smith,¹ Samuel Robinson,² Caroline Watts,^{2,3} Helen Schmid,^{4,5} John Thompson,^{4,6} Richard Scolyer,^{4,6,7} Andrew Spillane,^{4,6} David Gyorki,^{8,9} Victoria Mar,^{10,11,12} Rachael Morton,^{4,13} Graham Mann^{4,5} and Anne Cust^{2,4}

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Objectives

In the past 10 years the role of SLNB in melanoma management has changed from identifying patients for elective lymphadenectomy to identifying patients who might benefit from systemic adjuvant therapies such as immunotherapy and targeted molecular therapies. The aim of this study was to explore GPs' knowledge and attitudes towards SLNB in contemporary melanoma management, in particular their understanding of which patients should be considered for SLNB.

Methods

Qualitative study using semi-structured interviews with GPs (n=23) working in Australian general practices and skin cancer clinics followed by thematic analysis of the data.

Lessons Learned

GPs had generally favorable attitudes towards SLNB, reporting that SLNB was important for prognostication; most were aware it did not in itself provide a survival benefit. Knowledge of the Australian guidelines relating to SLNB was low, in particular the Breslow thickness at which SLNB was recommended and the role SLNB can play in informing melanoma management. Many GPs were aware of the role of adjuvant systemic therapies in contemporary melanoma management; however, few had made the explicit link between SLNB, identification of patients at risk of recurrence, and access to adjuvant systematic therapies. Many of the GPs indicated that they did not believe the guidelines around SLNB were directly relevant to their practice, the primary reason being that decisions around SLNB were the responsibility of the specialist.

Implications

The interviews identified a potential practice gap around GPs' view of their role in identifying and referring patients who may benefit from SLNB and, if the SLNB indicates regional spread, access to contemporary melanoma treatment including adjuvant therapies.

Does the wording of doctors' scripts inadvertently stimulate the demand for branded medicines?

E.Meshcheriakova, S.Goodall, D.Street, and R.Viney

CHERE, University of Technology Sydney

Objectives

In Australia, doctors can allow substitution of branded prescription drugs for generic alternatives. When substitution is allowed, the patient is offered a choice by the pharmacist between a branded or generic medicine. This study investigates whether the wording of the script inadvertently influences consumers' choice.

Methods

400 respondents were presented with a discrete choice experiment asking about their preference for medicine. Respondents were shown six choice sets with a doctor script for a hypothetical branded drug and six for a generic medicine and then asked to choose between the two medicines, based on price, product (branded or generic), collection time (now or later) and whether or not the pharmacist recommended the product. The doctor's script sometimes showed a branded medicine and sometimes a generic. The analysis was conducted using multinomial logit model, and marginal willingness to pay was also calculated.

Lessons learned

The doctor's script does not appear to influence the purchasing decision. The factors that drive consumer choice were time convenience, price and to some extent the brand name of the drug. The results show that at higher prices consumers appear to be indifferent to the product brand, and consumers would require a price discount to compensate for a longer waiting time for the dispensing of the script.

Implications

This study adds to our understanding of what factors are important when choosing a prescription medicine. Our findings suggest that under the current brand substitution policy, what doctor's write on the script has little bearing on consumers' choice.

Feasibility of implementing a Commonwealth-funded delinked reimbursement model for antimicrobials in Australia: the What, the Why and the How?

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³College of Medicine and Public Health, Flinders University

Objective

To determine the unmet need for antimicrobials by quantifying current usage of unregistered antimicrobials in Australia (the What?), and to engage stakeholders regarding value assessment of antimicrobials (the Why?) and the practicalities of implementing a method of funding that is delinked from usage in Australia (the How?).

Methods

A sequential mixed methods study was conducted. Three data sources (TGA applications, South Australian public hospital dispensing data, National Antimicrobial Utilisation Surveillance Program) were analysed to estimate the usage of unregistered antimicrobials in Australia. This informed semi-structured interviews with stakeholders from the pharmaceutical industry and policy makers at a federal or state level. Interviews were transcribed verbatim, coded and thematically analysed using the framework approach.

Lessons learned

In Australia, usage of unregistered antimicrobials is increasing. Analysis of dispensing data from South Australian public hospitals showed 87.7% of unregistered antimicrobials used were for outpatients. Stakeholders agreed that current cost-effectiveness approaches to assessing value do not consider relevant factors impacting stewardship of antimicrobials, such as antimicrobial spectrum of activity. Stakeholders also agreed that reimbursement should be delinked from sales and described barriers to be addressed for delinked reimbursement to be feasible in Australia.

Implications

Access to effective antimicrobials underpins modern healthcare. Overuse, especially of broad-spectrum antibiotics, drives antimicrobial resistance. Commonwealth funding of all antimicrobials, delinked from usage would support security of access and better facilitate efforts to improve quality use of antimicrobials. In addition to required legislative changes, the main barrier would likely be the governance and funding of off-label use.

Utilisation and discontinuation patterns and factors associated with secondary prevention medication after stroke

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Objective

To assess the uptake of secondary prevention medication 12-months post-stroke including: 1) utilisation and discontinuation patterns; 2) factors associated with discontinuation.

Methods

Observational design using data (2010-2014) from the Australian Stroke Clinical Registry (Victoria, Tasmania, New South Wales, Queensland and Western Australia) linked with data from the Pharmaceutical Benefits Scheme (PBS) and Medicare Benefits Schedule (MBS). Anatomical Therapeutic Chemical codes in the PBS data were used to classify medications for secondary prevention. Utilisation was defined as the presence of ≥ 1 medication supply in the 12-months post-discharge. Discontinuation was defined as the absence of medication for >90 days. Random effects logistic regression was used to assess factors associated with discontinuation.

Lessons Learned

Among the 13,197 patients discharged, 12,367(94%) were linked to PBS/MBS records. Within 12-months of discharge, secondary prevention medications were utilised by the majority of patients (69% antihypertensives, 53% antithrombotic and 57% lipid-lowering). The proportion of users who discontinued varied by medication type (26% antihypertensives, 44% antithrombotic and 30% lipid-lowering). Patients with fewer than 6 general practitioner(GP) visits (odds ratio [OR]: 1.28 95% confidence interval [CI]: 1.10, 1.50) or no GP chronic disease management plan (OR: 1.30 95% C.I: 1.16, 1.45) were more likely to discontinue antihypertensive medications.

Implications

This is the largest study describing medication utilisation and discontinuation among Australian survivors of stroke. The findings provide important insight into the management risk factors. The importance of the quality and frequency of GP care for preventing the discontinuation of secondary prevention medications 12 months post-stroke has been highlighted.

Barriers to pharmacist prescribing: a scoping review comparing the United Kingdom, New Zealand, Canadian and Australian experiences

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⁵ Independent Consultant/Accredited Australian Pharmacist Working in General Practice

Objective

Non-medical prescribers, including pharmacists, have been found to achieve comparable clinical outcomes with doctors for certain health conditions and enhance access to medicines. Legislation supporting pharmacist prescribing (PP) has been implemented in the United Kingdom (UK), Canada and New Zealand (NZ). To date, Australian pharmacists have not been extended prescribing rights. The purpose of this review was to describe the barriers to PP found in the literature and examine the implications of these for the development of PP in Australia.

Methods

We conducted a systematic scoping review, including peer-reviewed and grey literature, and consultation with stakeholders. Sources – Scopus, PubMed, CINAHL; Google Scholar, OpenGrey and organisational websites (January 2003 to March 2018) in the UK, Canada, NZ and Australia. Inclusion criteria – articles published in English, related to implementation of PP and articulated barriers to PP.

Lesson learned

Of 863 unique records, 120 were reviewed, and 64 articles were included. Three key themes emerged: 1. Socio-political context; 2. Resourcing issues; and 3. Prescriber competence. Common barriers were: inadequate training regarding diagnostic knowledge and skills; inadequate support from authorities and stakeholders; and insufficient funding and remuneration.

Implications

If implementation of PP is to occur, attention must focus on addressing identified barriers, including fostering a favourable socio-political context and prescriber competence. A concerted effort is required to develop clear policy pathways, including targeted training courses, raising stakeholder recognition of PP and identifying specific funding, infrastructure and resourcing needs to ensure the smooth integration of pharmacist prescribers within interprofessional clinical teams.

Perceived Strengths and Limitations of Precision Medicine - a documentary analysis

Hueiming Liu¹, Maarinke Van der Meulen¹, Emma Feeny¹, Stephen MacMahon¹.

¹ The George Institute for Global Health, University of New South Wales.

Objective

Precision medicine seeks to combine and analyse genomic data with clinical and diagnostic information, thereby improving health system performance. Despite significant investment in precision medicine in established economies, concerns remain about its implementation and potential impact in terms of population health outcomes. We aim to synthesize perceived strengths and limitations of precision medicine.

Methods

A narrative review and thematic analysis of leading academic editorials and grey literature (policy documents and media releases) using 'precision medicine' as a search term in: academic databases (Ovid and Medline); USA, UK and Australia government websites; and a media database tool (Jan to Nov 2018).

Lessons learned

Thirty-three documents were analysed (14 scientific, 9 media, 10 policy). Perceived strengths of precision medicine included: role in increasing governments' investment in the delivery of patient-centred care; associated commitment to improve integration and data linkage across fragmented health systems and build workforce capacity; and increased opportunities for patients with rare diseases to access new treatments. Perceived limitations included: likely marginal benefits in terms of lifestyle-related, non-communicable diseases; potential to exacerbate health inequities; and potential to create unmet public expectations in regards to feasible and timely outcomes. Perceived challenges to implementation related to security and privacy issues around the use of sensitive, personal data, and the need for adequate legislation and infrastructure to ensure ethical obligations are met.

Implications

Precision medicine encourages the provision of patient-centred care, nevertheless, careful consideration of its perceived limitations and implementation challenges- is required to address health inequities and strengthen the health system.

Adherence to antiretroviral regimens in Australia: a nationwide cohort analysis of dispensing data

Juliana Costa^{1,2}, Andrea Schaffer², Melisa Litchfield², Nicholas Medland³, Sujita Narayan⁴, and Sallie Pearson²

¹ Faculty of Medicine, Universidade Federal de Minas Gerais, ² Centre for Big Data Research in Health, University of New South Wales, ³ The Kirby Institute, University of New South Wales, and ⁴ School of Pharmacy, The University of Sydney

Objectives

To estimate 1-year adherence rates to combination antiretroviral therapy (cART) in routine clinical care among people living with HIV (PLHIV), characterise patterns of adherence over 1-year and identify factors associated with better adherence patterns.

Methods

We used a nationally representative 10% sample of PBS dispensing claims to identify 2,042 PLHIV dispensed cART between Jan 2016 and Dec 2017 irrespective of treatment status (naïve or experienced). We defined cART regimens based on patient dispensing records in the 30 days of the first observed record. We defined adherence as the proportion of days covered (PDC) $\geq 80\%$, and calculated it in two different ways: first, over the entire year; and second, over monthly intervals to perform group-based trajectory modelling.

Lessons learned

Overall, 83.6% (n=1,708) patients were adherent after 1-year, achieving a median PDC of 96.4% (IQR 87.2 – 99.7%). We also identified three distinct adherence trajectories over 1-year: nearly always adherent (67.8% of the cohort), moderate adherence (26.6%) and poor adherence (5.6%). People were more likely to belong to the 'nearly always adherent' trajectory if they were older, treated with an INtegrase Strand Transfer Inhibitors (INSTI) regimen, and on treatment for more than 6 months.

Implications

Our study demonstrates that the 1-year adherence to cART is generally high, but approximately one-third maintain a moderate or poor adherence pattern. The use of regimens with better tolerability profiles (such as INSTIs) and close monitoring of people on treatment, particularly in younger patient groups, and those initiating therapy, may improve adherence.

FRIDAY 6 DECEMBER 2019

Concurrent sessions 8A – 8I

8A HSR and indigenous services and communities |

8A.1 08:30 | Bridging the Divide - Keys for Moving Knowledge to Action Insights from the Innovation in Community Based Primary Healthcare (CBPHC) Supporting Transformation in the Health of First Nations and Rural/remote Manitoba Communities (iPHIT) Program of Research. Wanda Phillips-Beck, First Nation Health and Social Secretariat of Manitoba Canada

8A.2 08:45 | Building strength: A Quesnel Dakelh Education & Employment Society collaboration with the University of British Columbia. Veena Mudaliar, University of British Columbia Canada

8A.3 09:00 | Rhetoric to reality: how the governance of Aboriginal and Torres Strait Islander Health Workers impacts work practices in Queensland Australia. Stephanie M. Topp, James Cook University Australia

8A.4 09:15 | Translating Kaupapa Maori research into practice. Cate Mentink, Te Whanau o Waipareira New Zealand

8A.5 09:30 | Advancing Indigenous Primary Health Care Policy in Alberta, Canada. Stephanie Montesanti, University of Alberta Canada

8B Health Economics |

8B.1 08:30 | Associations Between Health Service Use and Quality of Life 4-months After Osteoporotic Fracture in Older Adults: Data from the Australian Arm of the International Cost and Utility Related to Osteoporotic Fractures Study (AusICUROS). Jason Talevski, The University of Melbourne Australia

8B.2 08:45 | Cost of strokes and TIAs in New Zealand: Evidence from ARCOS. Adriana Nunez, University of California, Merced United States

8B.3 09:00 | A cost of illness model for crusted scabies in indigenous communities in the Northern Territory. Margie Campbell, CHERE, UTS Australia

8B.4 09:15 | The cost-effectiveness of recommended adjunctive osteoarthritis management options in New Zealand: Results from a computer simulation model. Ross Wilson, University of Otago New Zealand

8B.5 09:30 | Monitoring and addressing overdiagnosis and overtreatment to reduce low-value care across all healthcare settings. Robin Turner, Otago University New Zealand

8C Health System Performance |

8C.1 08:30 | Time to wait: The impact of performance targets and public reporting on cancer elective surgery waiting times. Khic-Houy Prang, Centre for Health Policy, The University of Melbourne Australia

8C.2 08:45 | Building Capacity and Capability for Quality Improvement and System Integration - The System Level Measures Programme. Kanchan Sharma, Ministry of Health New Zealand

8C.3 09:00 | Implementing New Zealand's System Level Measures Framework - how have New Zealand's districts managed to work collaboratively to improve health outcomes? Tim Tenbenschel, University of Auckland New Zealand

8C.4 09:15 | Health system performance variation in New Zealand: A story of two decades. Pushkar Silwal, University of Auckland New Zealand

8C.5 09:30 | Exploring sources and dimensions of health disparities and inequities in New Zealand from a Historical Institutional Perspective: an analytical review. Adam Fusheini, University of Otago New Zealand

8D Data Linking |

8D.1 08:30 | Impact of prior home care on length of stay in residential care for Australians with dementia. Heidi Welberry, Centre for Big Data Research in Health Australia

8D.2 08:45 | Measurement of optimal general practitioner encounters following stroke using linked data from the Australian Stroke Clinical Registry. Nadine Andrew, Monash University Australia

8D.3 09:00 | Results in the evaluation of Coordinated Care Plans to support high cost users in the health care system. Eliot Frymire, Queens Canada

8D.4 09:15 | Individual and regional determinants of long-term care expenditure in Japan: Evidence from national long-term care insurance claims data. Xueying Jin, Department of Health Services Research, Faculty of Medicine, University of Tsukuba Japan

8D.5 09:30 | Can access to safe and effective care be improved in bariatric surgery by provision of registry data rather than big data? Dianne Brown, Monash University Australia

8E Interprofessional Teams |

8E.1 08:30 | Understanding refugee service integration in the Southern health system: a qualitative study using network visualisation methods. Lauralie Richard, University of Otago New Zealand

8E.2 08:45 | Strengthening primary care for children: Pilot of a novel, integrated general practitioner-paediatrician model. Rachel O'Loughlin, Murdoch Children's Research Institute, Australia

8E.3 09:00 | Review of Interprofessional Practice Models for Impact on Health Service Inequities. Melissa Carey, University of Southern Queensland Australia

8E.4 09:15 | Hospital outreach services in Australia to support aged care facility resident outcomes: An environmental scan. Aislinn Lalor, Cabrini Institute and Monash University Australia

8E.5 09:20 | Implementation and scalability of collaborative eye care models: a realist evaluation. Belinda Ford, The George Institute for Global Health Australia

8E.6 09:25 | Proactive Rehabilitation Screening (PReS): a new model of integrated care between acute and in-reach rehabilitation services. Jane Wu, St Vincent's Hospital Sydney Australia

8F Mental Health |

8F.1 08:30 | Young people, mental illness and resilience: managing medication in a complex context. Sara McMillan, Griffith University Australia

8F.2 08:45 | Effectiveness of embedding a specialist preventive care clinician in a community mental health service: an RCT. Caitlin Fehily, University of Newcastle Australia

8F.3 09:00 | Challenges and benefits of a pilot SMS-based crisis support service: views of crisis supporters. Dave Fildes, Australian Health Services Research Institute Australia

8F.4 09:15 | Seeking support for chronic disease risk behaviours: a comparison of participants with and without a mental health condition engaging with a population-level telephone coaching service. Tegan Bradley, University of Newcastle Australia

8F.5 09:30 | Is 'minimally adequate treatment' really adequate? Investigating the effect of mental health treatment on quality of life for children with mental health problems.. Jemimah Ride, Health Economics Unit, Melbourne School of Population and Global Health, University of Melbourne Australia

8F.6 09:35 | Exploring the inclusion of Pacific Peoples in Mental Health Policy in Aotearoa New Zealand. Ruby Tuesday, Auckland University of Technology (1)/Le Va (2) New Zealand

8G Patient Experience |

8G.1 08:30 | How to implement and use patient reported experience measures for quality improvement in Australian general practice: A mixed methods consultation study with local and international stakeholders in primary care. Hyun Song, Centre for Primary Health Care and Equity, University of New South Wales Australia

8G.2 08:45 | Community is where the heart is - The Community Flu Fighters pilot programme for Asian communities. Kitty Ko, Counties Manukau Health New Zealand

8G.3 09:00 | Improving access to health care for people with severe Chronic Obstructive Pulmonary Disease in Southern New Zealand: qualitative study of the views of health professional stakeholders and patients. Tim Stokes, University of Otago New Zealand

8G.4 09:15 | Living in a time of personalised medicine: a systematic scoping review of the experiences of people with Multiple Sclerosis. Anne Parkinson, Department of Health Services Research and Policy, Research School of Population Health, Australian National University Australia

8G.5 09:20 | The patient experience of unplanned readmission: A mixed methods study. Debra Berry, Deakin University - Eastern Health Australia

8G.6 09:25 | A patient-oriented approach to incorporate preferences into the design of clinical studies: stem cell transplant for scleroderma. Mark Harrison, The University of British Columbia Canada

8H Genomic Medicine Symposium |

8H.1 08:30 | Genomic medicine has arrived: are health service researchers ready to evaluate it? Symposium Lead: Louisa Gordon, QIMR Berghofer Medical Research Institute. Presenters: Louisa Gordon, QIMR Berghofer Medical Research Institute, Ilias Goranitis, University of Melbourne, Thomas Elliott, Astrid Rodriguez-Acevedo, QIMR Berghofer Medical Research Institute Australia

8I Pharmacists, Health Outcomes and Equity |

8I.1 08:30 | The potential of pharmacists to improve health outcomes & reduce inequities in Aotearoa. Symposium Lead: Trudi Aspden, University of Auckland, New Zealand. Presenters: Trudi Aspden, Adele Print, Jason Zhou, Robert Haua, The University of Auckland, New Zealand

Bridging the Divide - Keys for Moving Knowledge to Action

Insights from the Innovation in Community Based Primary Healthcare (CBPHC) Supporting Transformation in the Health of First Nations and Rural/remote Manitoba Communities (iPHIT) Program of Research

Objective: This presentation will describe the process and by which knowledge was disseminated, and opportunities were created for a meaningful discussion to take place to address health system improvement in First Nation and Rural and Remote communities in Manitoba.

Design: FHNSSM and University-based researchers worked together to plan and organize yearly gatherings culminating in a final conference in 2018, showcasing First Nation community's innovation/successes that featured community voices at the front and center. In this five-year program of research, these gatherings took place in year 1, 2, 3 and 4, each with slightly different focus and audience, but with one common thread – highlight the strengths of the community, what is working, and create connections between people.

Results: First Nation community leaders, government decision makers, policy makers and researchers all agree that yearly gatherings were the ideal forum and most effective way to share findings, interpret results and, more importantly, learn from each other. Creating the space (both ethical and practical) and bridging the divide between research, community partners and policy/decision makers for communities to showcase their innovation and successes is salient to making research more meaningful and transforming knowledge to action. The final conference in 2018 created the greatest opportunity for inter-community networking, creating a dialogue that moves beyond merely reading results in publications.

Conclusions: Committing time, planning and resources to network and build relationships and creating the space for all partners to converse are key ingredients to make research results come to life. This includes creating the space an audience consisting of policy and decision makers for FN's showcase innovation and what is working are necessary locally, rather than focus on the deficits and poorer outcomes often featured in conferences

Building strength: A Quesnel Dakelh Education & Employment Society collaboration with the University of British Columbia

Veena Mudaliar¹, Innocent Ndateba², and Sabrina Wong³

¹University of British Columbia

Objectives

Jordan's Principle is an Indigenous advocacy effort meant to ensure children across Canada have access to health, education, and social services inherent to wellbeing. The Quesnel Dakelh Education and Employment Society enacted Jordan's Principle to assess the needs of vulnerable youth, aged 14-19 years, from three First Nation communities. The purpose of this study is to identify needs and assets within the community to support youth wellbeing.

Methods

A community based participatory research approach was utilized to conduct the needs assessment. Collaboration between community and researchers ensured project outcomes were specific to the community context. In-depth, semi-structured interviews were conducted, audio-recorded, and transcribed with twenty-nine youth between the ages of 14-19. Audio files, field notes and analytic memos were recorded and transcribed. Data analysis was iterative and captured key themes. Data were reviewed, and member checked by the community.

Lessons Learned

A strength-based approach identified youth's needs and included the importance of Elders, family, and culture. Youth have a deep connection to their home; however, they continue to experience health inequities due to multiple structural barriers such as poverty, lack of transportation, and unstable housing. Trust and relationship-building between researchers and community stakeholders is key to engaging youth. The high school environment played an important role for these youth.

Implications

The Quesnel Dakelh Education and Employment Society will utilize the needs assessment data to inform the development of future programming to adequately support youth as they engage in education and employment opportunities for a healthier, stronger community.

Rhetoric to reality: how the governance of Aboriginal and Torres Strait Islander Health Workers impacts work practices in Queensland Australia.

Stephanie M Topp¹, Veronica Graham¹, Rachel Cummins¹, Josslyn Tully,² Sean Taylor,^{1,3}

¹ College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville.

² Torres and Cape Hospital and Health Service, Cairns.

³ Top End Health Service, Darwin.

Objectives

Australian federal and state-based health policy frequently places Aboriginal and Torres Strait Islander Health Workers (A&TSHW) at the centre of efforts to 'close the gap' between Indigenous and non-Indigenous health outcomes. Yet little is known about whether governance arrangements for A&TSHW actually support this vision. This study sought to explore the governance arrangements that guide and influence work practices of A&TSHW in far north Queensland (FNQ).

Methods

Using a case-based qualitative design, we conducted interviews in the Cape York and Torres Strait region with 43 state-employed A&TSHW, 16 non-Indigenous health providers, and 6 Indigenous community members. Data collection and analysis were guided by institutional theories that recognise formal and informal institutions (rules) and relationships as constituent of governance regimes.

Lessons Learned

A&TSHWs were viewed by most as important to effective remote-area health services. However, confusion existed about the nature and scope of A&TSHWs' role, which spanned manager, clinical service extender, health promotion agent and cultural broker. A key institutional contributor to confusion was the lack of an A&TSHW-specific employment stream in the state bureaucracy, resulting in A&TSHWs' appointment under generic 'operational' or 'administrative' roles. Key relational contributors include the strong curative orientation of the broader health system, which deprioritises and implicitly devalues the preventive-focused work of many A&TSHW. Within the risk-averse state service, these factors disempower A&TSHWs whose capabilities are under-utilised.

Implications

Relational and institutional factors are inhibiting A&TSHWs' contribution to Indigenous health outcomes. Improved role clarity and flexibility to accommodate A&TSHW strengths are urgently needed.

Translating Kaupapa Māori research into practice

Cate Mentink¹, Elica Safari Mehr¹ and Haze White

¹Wai Research, Te Whānau o Waipareira

Objective: To use kaupapa Māori research approaches to unpack rangatahi (youth) Māori needs in education and employment

Methods: A mix methods approach was used looking at primary and secondary data to assess the needs of rangatahi Māori aged from 13-24 from across Tāmaki Makaurau (Auckland). The research component of this project consisted of interviews, focus groups and a survey alongside literature review.

Following the research, a co-design process with key stakeholders (including government agencies, leading Māori community organisations, whānau (family) and rangatahi Māori) was carried out to inform the creation of a new rangatahi service for the region.

Lessons learned: The research component highlighted a range of key areas to be addressed in order to support rangatahi Māori with their employment and education aspirations. These themes included social capital, vocational support, place, engagement, purpose and equity. This research also highlighted the importance of a cross-sectoral approach including changing current practices and policies to address the wider needs of rangatahi.

Implications: This research highlighted the synergy between co-design and kaupapa Māori research. The empirical approach of co-design paired with kaupapa Māori research principles led to the creation of a whānau centred programme tailored to rangatahi needs.

Advancing Indigenous Primary Health Care Policy in Alberta, Canada

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¹School of Public Health, University of Alberta, ²Dept of Family Medicine, University of Calgary

Objectives: The *Innovating Indigenous Primary Health Care in Alberta, Canada* policy gathering brought together 65 Indigenous health leaders, provincial health system leaders, primary health care practitioners and scholars to explore together Indigenous primary health care (PHC) innovations with relevance for the Alberta context. An expert advisory group comprised of Indigenous and physician leaders in Alberta was formed to guide and plan the event. The objectives of the policy gathering were to share innovations in Indigenous PHC from other jurisdictions and collaboratively explore with Alberta stakeholders key elements of innovations including funding structures, infrastructure, and community engagement.

Methods: Breakaway groups led by guest presenters show-cased innovations from Cape Breton, NS, northern Quebec, and inner-city Vancouver. Facilitated discussions: 1) assessed innovations in terms of Alberta's realities; 2) discussed opportunities and challenges for realizing innovation; and 3) described core actions and recommendations for engaging Alberta decision-makers to champion an innovation agenda.

Lessons Learned: The Indigenous PHC models examined emphasized flexible policies, programs, and services, as well as opportunistic, multi-source approaches to funding PHC innovation. They also emphasized equitable community and Elder engagement/remuneration, the creation of a patient/population registry with Indigenous ownership and control of health data, contracting appropriate corridors of care, embedding Indigenous representation in provincial professional bodies, and stopping harmful short-term/episodic service delivery models.

Implications: Stakeholders concluded affirming a desire for further exploration of innovation possibilities, to develop a shared knowledge base from which to make important policy decisions. Following the recommendations from stakeholders at the gathering Alberta researchers created the Alberta IDEATE (*InDigEnous HeAlTh Equity*) Network for Primary Health Care (PHC) and Policy Research to advance and support evidence-informed transformation of PHC in partnership with Indigenous community.

Associations Between Health Service Use and Quality of Life 4-months After Osteoporotic Fracture in Older Adults: Data from the Australian Arm of the International Cost and Utility Related to Osteoporotic Fractures Study (AusICUROS)

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Objectives

We aimed to identify specific combinations of health services used in the 4-months post-major osteoporotic fracture (MOF) that are associated with change in health-related quality of life (HRQoL).

Methods

The Australian arm of the International Cost and Utility Related to Osteoporotic Fractures Study (AusICUROS) included 678 participants aged ≥ 50 years with a MOF. HRQoL was collected at baseline and 4-months post-fracture using the EQ-5D-3L questionnaire. Health service data encompassed hospital admissions (including in-hospital rehabilitation), out-of-hospital services (e.g. outpatient clinics, GP, allied health), informal care (e.g. home help) and medication use. Multivariable regression was undertaken.

Lessons Learned

Overall there were 173 hip, 282 wrist, 75 vertebral and 55 humeral fractures (mean age: 71.3 years; 77% female). Univariate analyses showed hospital admissions, allied health visits, home visits, home modifications and medication use were associated with positive HRQoL change post-fracture. Independent of age and pre-fracture HRQoL, the final model included admission to hospital ($\beta=0.091$, $p<0.000$) and allied health care visits ($\beta=0.004$, $p=0.017$). In sex-stratified analyses, univariate associations differed, although final models were the same. When analyses were repeated excluding hip fractures, the final model included admission to hospital ($\beta=0.103$, $p=0.004$) and health professional home visits ($\beta=0.128$, $p=0.001$) for men; and allied health care visits ($\beta=0.007$, $p=0.008$) for women.

Implications

Different combinations of health services have different associations with HRQoL improvement 4-months post-MOF in men and women, suggesting care pathways for clinicians that can improve short-term HRQoL. Further work should be directed toward identifying the combination of health services associated with return to pre-fracture HRQoL.

Cost of strokes and TIAs in New Zealand: Evidence from ARCOS

Adriana Nunez, Braden Te Ao, Paul Brown, Rita Krishnamurthi, Valery Feigin,

on behalf of the ARCOS Stroke Team

Objective: Estimate the total and marginal healthcare costs associated with treating patients with stroke or transient ischemic attacks (TIAs) in New Zealand.

Methods: The Auckland Regional Community Stroke study (ARCOS IV) measured TIA and stroke events during a 12 month period (from March 1, 2011). Patients were categorized as having a minor, moderate, or severe incidents based upon their Glasgow Coma Scale score. Data on hospitalizations were obtained from the National Minimum Dataset and the Auckland District Health Board. Data on rest home and rehabilitation services were identified from surveys at 1, 6, and 12 months. Cost of hospitalization was estimated using the NZ MOH cost weights. The total and marginal costs of rehabilitation and other services were identified using prices from the ADHB.

Results: A total of 2,858 patients suffered a cerebrovascular event during the period of study, with 74.3% of cases (2,126) identified as a stroke and 25.6% (732) as a TIA. The mean total cost for stroke patients was \$36,038, and the marginal (stroke only) cost was \$22,292. Patient with a TIAs incurred a total cost of \$19,597, with \$10,102 attributable directly to stroke.

Lessons learned: Many previous studies have underestimated the cost of stroke because of a lack of data on minor strokes. In addition, the cost of treating TIA is also significant.

Implications: Estimating the cost of stroke is important when analyzing the likely impact of interventions aimed at reducing the incidence or severity of stroke.

A cost of illness model for crusted scabies in indigenous communities in the Northern Territory

Margie Campbell¹, Kees van Gool¹, Naomi van der Linden², Karen Gardner³, Michelle Dowden⁴, Irene O'Meara⁴, Hannah Woerle⁴, Meg Scolyer⁴, and Rosalie Viney¹

¹University of Technology Sydney, ²Erasmus University Rotterdam, ³University of New South Wales Canberra, ⁴One Disease

Objectives

Crusted scabies is a highly contagious and debilitating skin disease. Although a rare disease, there is a considerable higher prevalence among the Indigenous population. Complications can lead to secondary infections, sepsis and death. Crusted scabies is associated with repeated hospitalisations and long hospital stays. The purpose of this study was to provide the first estimates of the annual costs associated with managing and treating crusted scabies in the Northern Territory.

Methods

A cost-of-illness model was developed that aligns to the four phases of care: primary care diagnosis with grading of crusted scabies, hospital treatment, follow-up in the community and recurrence. It calculated the expected cost of treating one patient diagnosed with crusted scabies over a one-year period. This expected cost was then multiplied by the number of patients diagnosed with crusted scabies annually to obtain a total annual cost. The perspective taken in this analysis was that of the healthcare system.

Lessons learned

The total annual cost of managing and treating all patients diagnosed with crusted scabies in the Northern Territory is \$1,373,205. The largest component of health care costs falls on the public hospital system. The results show:

- \$31,209 per crusted scabies case;
- \$18,294 per crusted scabies recurrence; and
- \$9,106 per crusted scabies grade 2/3 (more severe) cases.

Implications

Preventing crusted scabies through earlier recognition and efforts to reduce recurrence have the potential to save large health care costs. Further work is required to estimate the health and cost burden of crusted scabies on patients, households and communities.

The cost-effectiveness of recommended adjunctive osteoarthritis management options in New Zealand: Results from a computer simulation model

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¹ Centre for Musculoskeletal Outcomes Research, University of Otago

² School of Physiotherapy and Exercise Science, Curtin University

Objectives

To estimate the lifetime cost-effectiveness of recommended adjunctive treatments for knee osteoarthritis, when delivered in addition to recommended core first-line treatments, in the New Zealand (NZ) population

Methods

We identified recommended core and adjunctive treatments for knee osteoarthritis in the Royal Australian College of General Practitioners' osteoarthritis clinical practice guidelines. Evidence of treatment effectiveness and adverse events was sourced from the systematic review and meta-analysis informing the guideline. Cost of treatments was estimated using a bottom-up approach, applying NZ reference costs to the resources required to deliver each treatment. We used the existing NZ Management of Osteoarthritis computer simulation model of the lifetime costs, health impacts, and treatment pathways in knee osteoarthritis in NZ to estimate the lifetime cost-effectiveness of delivering each recommended adjunctive intervention in addition to core first-line treatments, compared with core treatments only.

Lessons Learned

We found walking cane, aquatic exercise, and corticosteroid injection to be highly cost-effective and topical nonsteroidal anti-inflammatory drugs (NSAIDs) and cognitive behavioural therapy moderately cost-effective. Not cost-effective were oral NSAIDs due to risk of adverse events; duloxetine due to limited evidence of effectiveness; and massage due to high costs of providing frequent one-on-one care.

Implications

Providing access to cost-effective treatments throughout the disease course of osteoarthritis is necessary to deliver effective, appropriate, and efficient care for this high-burden condition. Delivering low cost adjunctive interventions early in the disease course, alongside recommended core treatments, can deliver substantial population health gains at low or even negative incremental cost to the health system.

Assessing Overdiagnosis and Overtreatment to reduce low-value care across all healthcare settings

Robin Turner¹

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The concepts of overdiagnosis and overtreatment are now emerging more often in the medical literature as awareness of their implications for psychosocial burden and unsustainable cost become clearer. Researchers now have more tools to investigate these widespread low-value care practices in hospitals, primary care and residential aged care.

There are an increasing number of treatment options available to people with little evidence on whether choice of treatment helps. Recent advances in randomised control trial design now incorporate patient preferences for treatment allowing policy makers to better understand whether choice is beneficial or harmful. Ideally this will lead to informed decision making for treatments, including introducing conversations around whether treatment is beneficial at all.

One example where preference is important and where over treatment can occur is with people near the end of life. Older people with progressive, irreversible illness use acute hospitals services, tests, and multiple medications in the last year of life at rates that are questionable given the expected low benefit. This overuse of treatments inflicts unnecessary patient suffering, creates false hope of patient survival and frustration among clinical staff, and generates unsustainable costs. Tools for predicting people at risk of death within the year are available for free but underused. Timely honest conversations on non- aggressive options including supportive care are not occurring. We argue that public awareness and professional training can reduce this resource waste while improving quality end-of-life.

Time to wait: The impact of performance targets and public reporting on cancer elective surgery waiting times

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¹Centre for Health Policy, Melbourne School of Population and Global Health, The University of Melbourne

Objective

The objective of healthcare reforms is to enable equity in access to health services. However, as demand for hospital services outstripped supply, increase waiting times for elective care have become common. This has led governments to implement policy instruments involving performance targets (PT) and public reporting (PR) despite mixed evidence of their benefits. We examined the impact of PT and PR on breast, bowel and lung cancer elective surgery access in Victoria, Australia.

Methods

We analysed routinely collected data of patients aged 15 years or more who underwent cancer elective surgery in a public hospital from 2006/07 and 2015/16. In total, 199,885 patients were selected by linking records of hospital discharged and elective surgery waiting times data. Different-in-difference analyses were conducted to compare the post implementation period (2011/12 to 2015/16) with the baseline period (2006/07 to 2010/11) on cancer elective surgery waiting times.

Lessons Learned

Preliminary analyses showed an effect on waiting times to treatment for breast and lung cancer for urgent cases but not for semi-urgent cases. Patients with breast cancer waited half a day less and patients with lung cancer waited one day more for treatment than patients with other cancer types. There was no effect on waiting times to treatment for bowel cancer across urgency category.

Implications

Our findings suggested that PT and PR have not significantly reduced waiting times to treatment in patients with cancer. The lack of effect may be attributed to satisfactory waiting times performance prior to the introduction of these policy instruments.

Building Capacity and Capability for Quality Improvement and System Integration – The System Level Measures Programme

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¹New Zealand Ministry of Health

Objectives

The System Level Measures (SLM) programme is a continuous quality improvement (CQI) programme for the health system delivered through the district alliances. The goal is to support the DHBs to work together, as a system, with their local health partners to achieve the New Zealand Triple Aim.

Methods

The measures were co-designed with the health sector clinicians, managers and analysts. These are set nationally, are outcomes focused, and require all parts of the health system to work together for success. There is a focus on children, youth, Māori, and other population groups that experience disparity. SLMs are connected to clinically-led local quality improvement activities. Annual improvement plans are developed using clinical, managerial and analytical expertise, with participation from patients and community at the local level. Local health system partners examine their district's data and implement improvement activities that would make the biggest difference to their patients and population; keeping equity at the forefront. Process and activity measures are used by district alliances to measure progress against their activities.

Lesson Learned

The success of implementation varies between district alliances, and depends on seven key elements: alliancing way of working, clinical leadership and engagement, use of commissioning cycle, integrated health information, analytic capability, CQI focus, and engagement with patients and communities.

Implications

The SLM programme is an enabler for building capacity and capability for improvement, allowing the health system to become a learning system built on relationship and evidence that bring different parts of the system together to achieve the Triple Aim.

Implementing New Zealand's System Level Measures Framework - how have New Zealand's districts managed to work collaboratively to improve health outcomes?

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¹ Health Systems Section, School of Population Health, University of Auckland

Objectives:

In 2016, the New Zealand Ministry of Health introduced a novel approach for health system improvement known as the System Level Measures Framework. The SLMF was designed to focus on health outcomes, service integration, quality improvement and reduction of inequities. Improvements in key outcomes – such as reducing avoidable hospitalisation of young children - requires collaboration between government (District Health Boards) and local non-government health (Primary Health Organisations). Our research questions were:

- 1) To what extent has successful implementation varied between districts?
- 2) How can variation in success be explained in terms of contextual factors?

Methods:

We conducted 50 interviews with key stakeholders in 17 districts. We analysed interviews and SLM improvement plans using two key dimensions of implementation success: collaboration between health service organisations in SLM processes; and sophistication of data usage and interpretation. We used Qualitative Comparative Analysis (QCA) to map the conditions that led to successful implementation.

Lessons Learned:

Implementation success was most strongly shaped by the health of formal and informal local inter-organisational relationships. Well-functioning, formal District Alliances supported the engagement a wider range of local stakeholders. Greater trust between local organisations facilitated more sophisticated use of data.

Implications

Our research provides cautious support for developing more collaborative, trust-based approaches with an emphasis on iterative learning at the local level. Districts that had a history of collaboration harnessed the SLMF to foster health system improvement. However, the SLMF was rarely the catalyst for improved relationships in districts with a history of tension and conflict.

Health system performance variation in New Zealand: A story of two decades

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Objectives

To understand time trend and district-wide variation of NZ health system performance

Methods

Three dimensions of the health system performance – (i) mortality-based outcomes (Avoidable mortality), (ii) acute bed days and (iii) childhood ambulatory sensitive hospitalizations, will be analysed for between 2000 and 2018, marking the regime of policy and strategy-based performance reforms in New Zealand. Annual changes in the measures, both at the national level and that at the district level will be analysed, and potential effects of key socioeconomic determinants including geography will be explored using appropriate statistical modelling techniques.

Lessons learnt

Understanding a broader picture of health system performance is challenging. Amenable mortality has been used as a potential measure of healthcare outcomes, particularly for comparing country-level variations in performance, but it has its limitations. In the New Zealand context, which already enjoys one of the highest life expectancies globally, together with its strong emphasis on the primary care-based approaches such as integrated delivery of care, within the health system, focusing solely on amenable mortality may not reflect a complete picture of health system performance. Therefore, we decided to take into account the health care outcome measures that reflect the contributions of both primary care and secondary care, and the integrated delivery mechanisms.

Implications

We expect that this analysis helps to generate a narrative of the overall performance of the healthcare system in NZ. The contributions of the health care system interventions on population health outcomes will be ascertained, as the analysis is controlling for the potential effects of macro-level socio-demographic and economic variables that likely affect the health outcomes. As the period of data analysis is fairly long, it may help to signal potential influences of the past performance policies, practices, and initiatives in delivering particular health outcomes.

Exploring sources and dimensions of health disparities and inequities in New Zealand from a Historical Institutional Perspective: an analytical review

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Objective: Systemic and longstanding health inequities between population groups remain a public health challenge and a political concern in New Zealand. Despite significant progress in public and social policy regarding equity over the years, gaps exist between how the several policy interventions and implemented policies often are vague in how they address these inequities, prompting questions about the extent to which existing and future public policy can help mitigate the disparities. The objective is to explore the root sources and dimensions in order to establish how they reinforce and perpetuate inequities as documented in the published literature and other grey material since the evidence about the root sources is said to be in its infancy.

Methods: The data informing this study come from desk-based research of published peer-reviewed and other grey literature on health disparities and inequities in New Zealand across a number of databases.

Lessons Learned: The sources are complex, contested, multidimensional, inter-related and inter-dependent and important systemic factors. Institutional, historical and social sources provide a useful lens with which to understand the phenomenon. Disparities in access and outcomes are caused by a multiplicity of factors and are as a result of several years of evolution and institutionalisation both consciously and inadvertently.

Implications: Establishing reliable evidence about the root sources requires looking beyond the underlying causes and focusing on the sources if progress is to be made in improving population health outcomes through successful and effective policy and programme intervention.

Keywords

Impact of prior home care on length of stay in residential care for Australians with dementia

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Objective

To assess the impact of home and community-based services (HCBS) on length-of-stay within permanent residential aged care (PRAC) among a cohort of people living with dementia.

Methods

Survey data collected in 2006-2009 were linked to administrative dataⁱ for 3,151 participants with dementia from the 45 and Up Study who entered PRAC in 2010 – 2014. The highest level of HCBS a person accessed prior to PRAC was defined as: no HCBS, home support, low-level home care, and high-level home care. Multinomial logistic regression and Cox proportional hazards were used to investigate differences in Activities of Daily Living (ADL), Behavioural (BEH), Complex Health Care (CHC) scales at entry to PRAC; and time spent in PRAC.

Lessons Learned

People with prior high-level home care entered PRAC needing higher levels of assistance compared to the No HCBS group. They also had a shorter length-of-stay in PRAC (median length-of-stay of 1.9 years compared to 2.2 years for No HCBS). Those using low-level home care were less likely to enter PRAC needing high assistance compared to the No HCBS group. There were no differences between the home support and No HCBS groups.

Implications

High-level HCBS prior to PRAC may help those with dementia stay at home for longer. Increased transition options from low-level home care including more timely availability of high-level home care packages may help those with dementia remain at home longer.

ⁱ Datasets linked included pharmaceutical claims (provided by the Department of Human Services) Hospitalisations and Deaths (linked by the Centre for Health Record Linkage) and Aged Care data linked by the Australian Institute of Health and Welfare.

Measurement of optimal general practitioner encounters following stroke using linked data from the Australian Stroke Clinical Registry

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⁵School of Population and Global Health, The University of Western Australia, Perth

Objective

We aimed to compare methods for measuring general practitioner (GP) encounters following stroke using routinely collected data.

Methods

Patient data from the Australian Stroke Clinical Registry (AuSCR; 2010-2014) were linked with Medicare (2009-2015) and death data (2009-2016). GP contacts were identified for the 0-18 months following the first event in AuSCR (exposure period) using Medicare codes among adults who survived to 21 months. Continuity (extent to which a patient sees a given provider) was calculated using a modified continuity index and continuity-of-care index. Regularity (distribution of GP use) was ascertained using the variance method (variance between visits) and a modified standard deviation method (standard deviation between visits). We regressed the indices against the total frequency of visits using negative binomial regressions, and all-cause death, for deaths that occurred between 21-33 months, using Cox regressions adjusted for demographic/clinical variables. Akaike information criterion (AIC)/Bayesian information criterion (BIC) were used to determine the best model (lower = better).

Lessons Learned

Ninety-five percent of the cohort were linked to Medicare (n=7502 eligible). Median frequency was 6 visits/person/year and 51.3% saw the same GP 80% of the time. Models using the modified regularity index were consistently better than for the original index for both models: (AIC 52069.94(modified), 54666.3(original); BIC 52090.65(modified), 54687(original)) and survival models (AIC 9041.393(modified), 9042.321(original); BIC 9109.708(modified), 9110.635(original)). There was no difference in continuity of care indices.

Implications

Few researchers have explored GP continuity and regularity of care following stroke. Using optimal methods to calculate these variables is likely to better inform recommendations for research/clinical practice.

Results in the evaluation of Coordinated Care Plans to support high cost users in the health care system

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Objective: Numerous jurisdictions, including Canada, have implemented Coordinated Care Plans (CCPs) to support “high cost” users with healthcare system navigation and to influence social determinants of health. Our study’s objective is to examine the impact of three representative CCPs in Southeastern Ontario, Canada on CCP adoption (early/late), patient level factors (age, sex, residence, socioeconomic status, community support, social determinants of health), healthcare resource utilization and costs.

Methods: This is a retrospective study that uses health Administration data linked with data from the local regional health authority(SHIIP). This process will enable identification of who is in enrolled in CCPs to allow for pre CCP and post CCP analyses as well as evaluation of CCPs compared to a control group. Difference-in-differences methodology with generalized estimating equations and robust error variances will be used on each outcome.

Lessons learned: This analysis is fundamental to the evaluation of the program as a whole. By exploring the potential benefit of CCPs for “high cost” users, we have the potential to provide essential information on the efficiency of CCPs for patients with complex conditions. The range of comorbidity, rurality, age , sex and SES constitute important considerations.

Implications: It is critically important to evaluate what has been working within current CCPs, and what gaps persist in order to inform policy decision making. Our study benefits from the robust health administration (ICES) data set and from the inclusion of SHIIP data which, to date, have never been used for research purposes.

Individual and regional determinants of long-term care expenditure in Japan: Evidence from national long-term care insurance claims data

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Objectives

Japan, with the oldest population in the world, faced a challenge of financial sustainability owing to rising long-term care (LTC) expenditure. Given this situation, it is important to understand how individual and regional characteristics affect LTC expenditure.

Methods

Data were obtained by linking national LTC insurance claims, which covered the entire population who used LTC services in Japan, with the municipality data on an individual level. Individuals 65 years and older (n=3,876,068) who used LTC insurance benefits at least once in fiscal year 2016 were included in this analysis. We examined the associations of individual and municipality characteristics regarding supply and demand of healthcare with LTC expenditures on facility care, home and community care, and total (the sum of both cares), after adjusted for regional differences in LTC extra charges.

Lessons and learned

The following variables were associated with higher total expenditure: at individual level higher care-need level or facility services usage, and at municipality level municipalities locating at metropolitan, having a higher proportion of single elderly households, or more nursing homes per 100,000LTC benefit users.

Implications

We have identified several individual and municipality characteristics, which were associated with higher LTC expenditure in Japan. This study can serve as an important step to deal with rapidly growing LTC expenditure. As informal care was not compensated under LTCI system in Japan, informal care was not counted to calculate LTC expenditure. Hence, additional research

including both informal and formal care is warranted to address abovementioned issue.

CAN ACCESS TO SAFE AND EFFECTIVE CARE BE IMPROVED IN BARIATRIC SURGERY BY PROVISION OF REGISTRY DATA RATHER THAN “BIG DATA”?

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²The University of Auckland

Objectives

To measure the safety and effectiveness of bariatric surgery in the treatment of obesity and provide evidence to support improved access to care in Australia and NZ.

Methods

Over 90% of bariatric procedures occur within the private system indicating there is limited public access to these services and that the data needed to assess quality and safety is dispersed.

The Bariatric Surgery Registry (BSR) collects data directly from clinicians and hospitals. The collected data from over 70,000+ participants in Australia and NZ, includes whether the procedure was a revision or primary – data not systematically recorded in most EMRs, hospital billing systems, government databases or other potential sources for “Big Data”. Biostatisticians were engaged to analyse the data using this designation of primary vs revision to measure outcomes.

Lessons learned

From the analysis three important outcomes have been produced:

1. An understanding of the durability of surgery via the cumulative rate of revision post primary procedure;
2. A risk adjusted process of assessing outliers in the peri-operative period that stratifies primary from revisions; and
3. An understanding of likely patient journeys

Implications

Clinical quality registries like the BSR can provide important information on safety and effectiveness of treatment building a case for improved access to this care. They can fill in the gaps of a “Big Data” approach, which is particularly important when healthcare provision is predominantly in the private sector as data is more widely-disseminated and less systematic.

Understanding refugee service integration in the Southern health system: a qualitative study using network visualisation methods

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Objective

Health services for refugees frequently experience gaps in delivery and access, poor coordination, and service fragmentation. Understanding how refugee service networks operate is paramount for improving health care quality, enhancing service access, and fostering cultural responsiveness of health systems, yet this remains poorly understood and researched in New Zealand. This research investigates refugee service delivery models and network integration in the Southern health system (Dunedin and Invercargill).

Methods

The study utilises a qualitative exploratory design including network visualisation methods. Semi-structured interviews were conducted with 17 key stakeholders from the health, social and community sectors. All participants completed visual maps of their networks. All data were subjected to thematic analysis.

Lessons learned

Findings bring to light challenges for refugee care coordination between services and sectors. Despite the importance of working collaboratively to address the needs of former refugees across the determinants of health, many providers still manage care through siloed work. There also remains uncertainty about the role of the various providers in the system, with perceived deleterious impact on continuity of care and service access. Navigation roles are key to enable connections between providers in the network and to facilitate access to health care for former refugees, yet navigation roles remain limited and often rely on one or two individuals to cover wide regional networks, with concerns for sustainability in the long run.

Implications

Findings will inform improvement of local health systems to foster integrated service pathways and enhance access to health care for our former refugee communities.

Strengthening primary care for children: Pilot of a novel, integrated general practitioner-paediatrician model.

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Objective

We piloted an integrated GP-paediatrician model of care aiming to improve primary care quality, reduce GP referrals to hospital outpatient and emergency departments (EDs), and determine feasibility and acceptability of the model to families, GPs and paediatricians.

Methods

The study was a pre-post pilot with five GP practices over 12 months. The model of care comprised: (1) weekly paediatrician-GP co-consultation sessions at the GP practice; (2) monthly case discussions; and (3) phone and email support for GPs. GP referral and quality of care data were extracted from GP medical records. Online surveys examined feasibility and acceptability; GP confidence and competence; and family confidence in GP care. Qualitative interviews were conducted with 13 families.

Lessons Learned

This new model of care was feasible and acceptable to the participating 49 GPs, 284 families and 2 paediatricians. Pilot data showed: absolute reductions in the proportion of referrals to hospital outpatient clinics (3%) and EDs (7%); reductions in GP low value care (20%); improved GP confidence in paediatric care (88% to 100%); and increased family confidence in GP care (78% to 94%). Qualitative family interviews revealed model benefits including: ease and comfort of receiving paediatric care closer to home, and clinical benefit of the paediatrician and GP consulting in the same room.

Implications

Developing and embedding a GP-paediatrician integrated model of care in Australia's primary health care system is feasible and acceptable; improves GP confidence and quality of paediatric care; streamlines specialist care; and may reduce referrals to hospital outpatient clinics and EDs.

Review of interprofessional practice models for impact on health service inequities.

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Objectives

The purpose of this research was to systematically analyse the evidence of impact of Interprofessional Practice Models (IPM) on reducing health service inequities in community care for diverse ageing populations. The review informs best practice models through evidence based findings, informing future proposed Health Care Service policy and practice initiatives in community aged care throughout Australia and New Zealand.

Methods

A systematic review of the literature using quantitative and qualitative research databases and health service reviews was conducted. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework was utilised to guide evidence for inclusion in the review. NVIVO software was utilised to code and extract themes from the literature.

Lessons Learned

A diverse range of international interprofessional education models seek to reduce inequities in diverse populations, however there is little evidence of how this translates into interprofessional practice within community settings. It is clear that shared goals and a business practice model that supports an interprofessional approach is necessary to have impact on health service inequities. There is a need to improve collaborative practices between social care providers and health care professionals, and to more clearly define team member roles.

Implications

The implications for Health Service change to achieve national and international health priorities of equity in health care services for diverse ageing populations are significant. The current lack of implementation evidence for best practice makes finding a way forward difficult. This systematic review provides an evidence base for future policy and management initiatives to inform practice.

Hospital outreach services in Australia to support aged care facility resident outcomes: An environmental scan.

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Objective

To describe the range and nature of hospital outreach (HO) services available to aged care facilities (ACFs) across Australia and determine current uptake of these services.

Methods

We will conduct a systematic environmental scan and content analysis of HO services currently offered to ACFs across Australia. The scan consists of an online search of public hospitals outlined in the Local Hospital Network (LHN) directory provided by the National Health Funding Body, and government and other publicly available websites and document analysis of the content of HO services.

Lessons Learned

Preventing unnecessary hospital admissions in Australia is an explicit healthcare reform objective. HO services are emerging as alternative healthcare service delivery models. Initial analyses will identify current provision and uptake of HO services to assist in enhancing health system efficiency and cost-effectiveness, improve resident outcomes, prevent unnecessary hospitalisation, and reduce pressure on hospitals.

Implications

Australia's population of older adults is increasing in both number and proportion and is older than it has ever been. In 2017-18, people aged 65 and over accounted for 42% of all hospitalisations, yet only accounted for 15% of the population at that time. Nearly 70% of aged care expenditure is on residential aged care, with ACF residents the frailest cohort of the aged. Our research will help clinicians and policymakers better understand current uptake of HO services provided, and identify potential inequities across Australia to inform development of health system policies.

This research is conducted by Dr Aislinn Lalor, Dr Denise O'Connor, Dr Emma Gearon, and Professor Rachelle Buchbinder, Monash Department of Clinical Epidemiology, Cabrini Institute, and Department of Epidemiology and Preventive Medicine, Monash University, and funded in part by the NHMRC Partnership Centre for Health System Sustainability (Grant ID #: 9100002). Along with the NHMRC, the funding partners in this research collaboration are: The Bupa Health Foundation; NSW Ministry of Health; Department of Health, WA; and The University of Notre Dame Australia. Their generous support is gratefully acknowledged. While the NHMRC, The Bupa Health Foundation, NSW Ministry of Health, Department of Health, WA and The University of Notre Dame Australia, have provided in-kind and financial support in part for this research, they have not reviewed the content and are not responsible for any injury, loss or damage however arising from the use of, or reliance on, the information provided herein. The published material is solely the responsibility of the authors and does not reflect the views of the NHMRC or its funding partners.

Implementation and scalability of collaborative eye care models: a realist evaluation

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Objectives

Chronic eye diseases are overburdening health services. Some countries have adopted 'collaborative care' using multidisciplinary clinical teams to improve patient access, streamline care, and reduce costs. This study investigates the factors that influence successful implementation and scalability of collaborative care models in different health systems.

Methods

A qualitative study using semi-structured interviews was conducted in Finland, United Kingdom, and Australia; with 16 health system stakeholders (clinicians, managers, policy-makers). Data were analysed using the Realist Framework to identify contexts, mechanisms and outcomes (C-M-O).

Lessons Learned

'Efficient'- concern that demands for hospital eye care will become unmanageable (C). Collaborative care is a necessity, but stressful when it fails (M). Patient volume/hospital capacity was increased and wait-times reduced (O).

'Standardised'- national policy/targets pre-empted implementation (C). Standardised protocols promote equitable access (M). Collaborative care is suited for low-level disease, but less suited for co-morbidities, rapid changes, or cognitive/mobility issues (O).

'Costs'- limited healthcare resources (C). Collaborative care uses existing resources and task-shifting to increase productivity. Systems to share patient records were integral to program success/failure (M). Cost effective programs gained support from decision makers, but investment in centralised IT systems was required (O).

'Change'- initiated by ophthalmologists (C). Motivation and trust were needed to get started; and training/feedback improved confidence and decision making (M). Clinical care was maintained and higher staff satisfaction through broader scope of practice (O).

Implications

A range of factors lead to the success of collaborative care models, and learning from these can inform adoption and scalability in other settings.

Proactive Rehabilitation Screening (PReS): a new model of integrated care between acute and in-reach rehabilitation services

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Objective

Patients admitted to hospital may benefit from early rehabilitation interventions. However, it is not known how best to identify this group of patients early during the acute hospital admission.

We developed a new 4-item PReS tool whereby a score 0-15 is calculated via medical record review. The screener (nurse) is asked to predict if the patient will need rehabilitation ("ruled-in") or not ("ruled-out"). We aimed to evaluate feasibility and validity of this screening process.

Methods

The time required to screen each medical record was <5 minutes. Screening achieved high sensitivity (86.0%) and specificity (92.1%) for identifying patients who subsequently received in-reach multi-disciplinary rehabilitation (during the acute care period) and/or subacute inpatient rehabilitation (on discharge from acute care). The area under the ROC curve (AUC) was 0.903 which is indicative of an outstanding screening test.

Since May 2017, PReS has been implemented at St Vincent's Hospital Sydney for all consecutive hospitalized patients, 5 days after admission. We will present the first 4000 screens and discuss the benefits measured such as cost savings and better patient flow.

Lessons Learned

PReS process is feasible, simple to implement and applicable to heterogeneous patient groups. It has high sensitivity and specificity for identifying patients with rehabilitation needs.

Implications

PReS ensures that access to rehabilitation services is equitable and timely for all patients admitted to hospital. It also reduces delays to inpatient rehabilitation, resulting in benefits to the patient and health care system.

Young people, mental illness and resilience: managing medication in a complex context

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Objective: To explore the experiences of young Australians taking and managing psychotropic medication for any mental illness.

Methods: Young people (aged 14-25 years) who had used a psychotropic medication for any mental illness for a minimum of two months participated in a semi-structured interview. Conversations were held in consultation rooms at two youth-focused mental health support organisations in Brisbane, Queensland, between October 2017-September 2018. Interview questions explored participants' overall experiences with medication use, with a specific focus on how they managed their medication. Interviews were transcribed verbatim and thematically analysed.

Lessons learned: Eighteen participants described their experience with using psychotropic medication, with stories highlighting the resilience of this vulnerable group of people. Young people discussed using a range of strategies to manage associated side effects, medication changes and to assist with routine medication use. Finding the right medication that reduced symptom severity with minimal side effects was a complex experience made particularly difficult when there was a lack of, or conflicting information, limited support or reduced financial capacity. Medication use was particularly difficult if the GP had limited expertise in this therapeutic area or viewed the young person as a spectator and not a participant in their own welfare.

Implications: The conduct of some healthcare professionals can intensify the vulnerability of young people using psychotropic medication, strengthening the call for further action to optimise the provision of information and to consider their needs. Further research is needed to validate the use of patient-reported outcome measures specific to this population.

Acknowledgements and Funding: This study received financial support from a Griffith University New Researcher Grant (NRG) Scheme from Menzies Health Institute Queensland. Study design, data collection and analysis processes were developed independently of the funder.

A healthy lifestyle clinician in a community mental health service: an RCT

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Objectives

Clinical practice guidelines recommend that mental health services provide preventive care to address their clients' chronic disease risk behaviours, such as tobacco smoking, poor nutrition, harmful alcohol consumption, and physical inactivity; however, such care is not frequently provided in routine mental health consultations. An alternative model of care is to allocate a clinical position to this dedicated role. This study assessed the effectiveness of offering clients an additional consultation with a 'healthy lifestyle clinician' in a community mental health service.

Methods

A randomised controlled trial was conducted within one community mental health service. Clients (n=811) were randomised to receive either usual care or usual care plus the offer of an additional consultation with a healthy lifestyle clinician (intervention group). Telephone interviews were undertaken at baseline and a one-month follow-up to assess participants' views towards this model and receipt of preventive care.

Lessons learned

The majority of clients agreed that this model of care was acceptable, and over a third of clients who were offered the additional consultation attended. Clients in the intervention condition were significantly more likely to have received assessment (RR 4.00), advice (RR 2.40), and referral (RR 20.13) for their chronic disease risk behaviours; compared to usual care. Clients who attended reported high levels of satisfaction with this model of care.

Implications

Offering clients an additional consultation with a healthy lifestyle clinician may represent an effective model of providing preventive care to clients of community mental health services that is perceived as acceptable and satisfactory to clients.

Challenges and benefits of a pilot SMS-based crisis support service: views of crisis supporters

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Objectives

Lifeline Australia launched a pilot of Australia's first SMS-based crisis support service, Lifeline Text, in July 2018. Its aims were to reduce risk of suicide, self-harm, domestic violence and other issues among help seekers, particularly those who preferred a text-based technology to communicate with crisis supporters. The Australian Health Services Research Institute, University of Wollongong was engaged to evaluate the pilot.

Staff were recruited from among the organisation's volunteer crisis support workers and received additional training during the pilot. Lifeline Text was available nightly from 6pm to 10pm. An important focus for the evaluation was how demand impacted on staff workloads and what levels of staff support were required.

Methods

Interviews were carried out with crisis supporters and in-shift supervisors at two time points to address evaluation questions relating to their roles and the operational support needed to sustain the service. Enablers and challenges to service delivery were also explored.

Lessons learned

The degree of suicidality experienced by help seekers placed high demand on staff. Although all staff were very experienced and felt the training prepared them well, it was more difficult than expected to translate their skills from telephone to text. Maintaining the quality of the service model at peak demand required high-level skills. Overall, staff felt supported and believed the pilot service achieved good outcomes for help seekers.

Implications

To sustain a high quality crisis support service, adequate supervision, ongoing training and regular breaks for staff members are essential.

Seeking support for chronic disease risk behaviours: a comparison of participants with and without a mental health condition engaging with a population-level telephone coaching service

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Objectives

1) Examine the extent to which people who report having had a mental health condition are represented among participants of a free population-level telephone coaching service to improve physical activity and nutrition, and 2) compare the health risk profiles of participants with and without mental health conditions, as well as confidence to make changes to risk behaviours.

Methods

Secondary data analysis was conducted on information collected as a part of the coaching process for 11,925 participants who enrolled in coaching with the NSW Get Healthy Service for the first time between January 2015 and December 2017. Chi-square analyses were used to compare participants who reported having had a mental health condition with those who did not, on health risks (including physical activity, fruit and vegetable consumption, weight status) and confidence.

Lessons Learned

A quarter (26%) of coaching participants identified as having had a mental health condition that required treatment from a health professional. At program intake, when compared to those without such a condition, these participants were less likely to be meeting guidelines for physical activity, were more likely to be overweight/obese, and were less confident in their ability to make changes to their diet, weight, and exercise levels.

Implications

NSW Get Healthy Service coaching participants with a mental health condition engage in higher levels of health risks and lower confidence at intake to the service. These characteristics may mean that participants with a mental health condition require additional support to achieve their health related goals; a supposition that future research might address.

Is ‘minimally adequate treatment’ really adequate? Investigating the effect of mental health treatment on quality of life for children with mental health problems.

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Objective

Clinical trials show both psychological and pharmacological therapies to be efficacious for treatment of children’s mental health problems, which are common. However, many children do not receive treatment consistent with the clinical trial evidence. Defining a minimum standard of adequacy allows population-level measurement of health system performance. Minimally adequate treatment (MAT) for children’s mental health problems is defined based on clinical practice guidelines, but there is no real-world evidence on its effectiveness; this study fills that gap.

Methods

We investigate whether receipt of MAT is associated with better quality of life using data from the Longitudinal Study of Australian Children linked to healthcare utilisation data. The sample are children aged 8-15 with mental health problems (based on the Strengths and Difficulties Questionnaire), with quality of life measured by the Peds-QL at the following wave of the survey (two years later). We apply a lagged dependent variable model to account for potential time-varying endogeneity.

Lessons learned

There is no association between MAT and quality of life. The results are robust to different definitions of treatment and outcome variables, and in a higher-severity sample. While achievements measured by MAT might indicate levels of care provided, this evidence does not support its use to monitor effectiveness in terms of outcomes.

Implications

Possible explanations for the lack of an association between MAT and outcomes include: more treatment is needed to improve outcomes; quality of care and specialist care are not captured; heterogeneity of mental healthcare needs may obscure effects.

Exploring the inclusion of Pacific Peoples in Mental Health Policy in Aotearoa New Zealand

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Objectives

To determine how well and to what extent Pacific peoples and their values, understandings, and approaches to mental health have been included in mental health policy in Aotearoa New Zealand.

Methods

Critical discourse analysis.

Lessons Learned

While Pacific peoples have been discussed in all national mental health policies to date (bar one), these discussions have often been characterised by a lack of ethno-specificity, the conflation of Pacific peoples with other population groups, the inconsistent consultation of relevant stakeholders, the omission of Pacific-led research, and the presentation of Pacific values, understandings, and approaches in an ambivalent and superficial manner. The issue of ineffective inclusion in national mental health policy is exacerbated by the lack of engagement with mental health in Pacific health policies, and by the failure of numerous governments to develop a dedicated Pacific mental health policy.

Implications

Pacific peoples in Aotearoa New Zealand experience poor mental health outcomes when compared to the general population. There is little evidence to suggest that the situation is improving, and little attention has been paid to the role that policy discourse plays in its perpetuation. By examining the inclusion of Pacific peoples in mental health policy we are able to highlight potential pathways for change, supporting inclusion that is more affirmative and meaningful and supporting the development of policy which better meets Pacific peoples' needs.

How to implement and use patient reported experience measures for quality improvement in Australian general practice: A mixed methods consultation study with local and international stakeholders in primary care

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Objective

This study aimed to identify barriers and strategies to systematically implement and use PREMs for quality improvement (QI) in general practice, from the experiences of Australian and international stakeholders in primary care.

Methods

A mixed methods approach using qualitative surveys administered online and by interview, between June 2018 and January 2019. There was a purposive sampling of 20 primary care experts, including academics, survey experts, health administrators, and general practitioners representing Australia (n=10), New Zealand, USA, Canada, UK, and Switzerland. Responses were analysed and organised using content analysis.

Lessons Learned

Participants remarked on the value of establishing and using PREMs, especially in alignment with other QI initiatives. At the patient level, it was recommended that surveys be comprehensible, short, relevant to diverse patient experiences, and in accessible format. At the organisational level, the importance of adequate staff training and support to administer surveys and fit with normal workflow were recognised. IT structures and processes required to easily administer surveys and access data were discussed, with ethical considerations of ensuring data privacy and confidentiality. Time and cost were the most frequently reported barriers.

Strong leadership and accountability at the system level were prioritised, including investing resources to sustain surveys and normalising an organisational QI culture. Stakeholder engagement at all levels – including clearly identifying the purpose and scope of surveys – was identified as key to the success of implementing and using PREMs.

Implications

Findings have the potential to guide policy and practice around implementing and using PREMs in Australian general practice.

Community is where the heart is - The Community Flu Fighters pilot programme for Asian communities.

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Objectives

Influenza immunisation rates amongst the elderly Asian population in Counties-Manukau have been low for some years. A pilot programme offered free influenza vaccinations to Asian people aged 65+, delivered by trained vaccinator pharmacists at community social gatherings. Factors contributing to elderly Asian people receiving vaccines in this pilot programme were identified to address health service inequities and improve health system performance.

Methods

A total of 28 community organisations were offered the pilot programme to their members aged 65+ through networks accessed by the Asian Health Gain Advisor and the Lead Clinical Health Coach. Free health talks and health checks were offered at selected locations. Videos about the pilot programme in Mandarin, Hindi and Punjabi were sent to the organisations to encourage participation.

Lessons Learned

A total of 458 individuals (89 from Chinese organisations, 282 from Indian organisations; and 53 from ethnically diverse organisations) received the vaccines across 21 locations (148 “first timers” and 44 irregular vaccinees). Convenience was the leading reason given for participation, followed by trust in the organiser, preventing flu, supporting community initiatives, and peer support/ friendly environment.

Implications

Transport, language, time, priorities, mistrust, and lack of support are barriers to the elderly Asian population accessing influenza vaccinations via the traditional access points of G.P practices or community pharmacies. This successful pilot programme has demonstrated that influenza immunisation rates can be improved by offering vaccinations where elderly Asian people socialise as social connectedness is fundamental to Asian culture and “community is where the heart is”.

Improving access to health care for people with severe Chronic Obstructive Pulmonary Disease in Southern New Zealand: qualitative study of the views of health professional stakeholders and patients

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Objectives

Chronic obstructive pulmonary disease (COPD) is a common chronic disease with significant morbidity and mortality in those with severe disease and places a large burden on the New Zealand (NZ) health system. Inequalities are marked, particularly for Māori. We undertook a mixed-methods implementation research study which aimed to determine the barriers and enablers to the provision of accessible high quality COPD care.

Methods

Semi-structured interviews were undertaken with 11 health professional stakeholders and 23 patients with severe COPD in NZ's lower south island. The descriptive categories developed from the patient and stakeholder interviews were organised into themes informed by a conceptual framework for access to health care (Levesque et al. 2013).

Lessons learned

Health professional stakeholders identified barriers to providing access to health services, in particular: availability (e.g., limited geographical availability of pulmonary rehabilitation), affordability (e.g., co-payment charge for seeing a general practitioner) and appropriateness (a shared model of care across primary and secondary care was needed to facilitate better delivery of key interventions such as pulmonary rehabilitation). Māori stakeholders highlighted the importance of communication and relationships and the role of whānau for support. Patients' accounts showed variable ability to access services through having a limited understanding of what COPD is, a limited knowledge of services they could access, being unable to attend pulmonary rehabilitation and incurring direct and indirect costs.

Implications

The use of a conceptual framework for access to health care allows demonstration of how both stakeholder and patient perspectives interact along the pathway of COPD care.

Living in a time of personalised medicine: a systematic scoping review of the experiences of people with Multiple Sclerosis.

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Objective

Personalised medicine offers the benefits of knowledge customised to individual care needs. However, little is yet known of how this medical approach may align with lived patient experience. Detailed insight into such experiences may aid consensus on which interventions, measures and outcomes are truly meaningful. This review aimed to explore the experiences of people with Multiple Sclerosis (MS), and consider how and if these experiences can align with, and inform, personalised approaches to managing and treating MS.

Methods

We adopted iterative scoping review methodology, including a descriptive numerical summary and thematic analysis. Systematic searches were conducted in ProQuest, PubMed, CINAHL and PsychINFO databases examining the literature from 2010 to January 2019. Thematic analysis produced a synthesis of key experiences of people with MS, from across the included qualitative literature.

Lessons Learned

Of 1680 articles, 77 were included. We identified five experiential themes, occurring across three temporal disease domains (symptomatology; diagnosis; progression and relapse) and two contexts (the health sector; work, social and family life). The five themes of patient experience were: (1) quest for knowledge; (2) loss of valued roles; (3) fatigue; (4) uncertainty; and (5) adaptation. Of these, quest for knowledge and uncertainty were experienced across all domains and contexts.

Implications

The qualitative literature emphasises the experience of uncertainty, itself related to an enacted quest for knowledge and adaptation. Personalised medicine, which can adapt to individual experience, is relevant to the themes in this review, and promises to reduce uncertainty and inform this quest for knowledge.

The patient experience of unplanned readmission: A mixed methods study

Julie Considine^{1, 2, 3, 4, 6}, Debra Berry^{1, 3, 4, 6}, Evan Newnham^{4, 5}, Peteris Darzins^{4, 5}, Karen Fox⁴,
Stephanie Sprogis^{1, 3, 6}, Maryann Street^{1, 2, 3, 4, 6}

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⁴ Eastern Health, Box Hill

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⁶ Institute of Health Transformation, Deakin University, Geelong

Objective

To understand from a patient and family or carer perspective; i) what features of hospital discharge could be improved to have avoided subsequent hospital readmission and ii) what would have enhanced the discharge experience; and iii) what existing health services designed to support patients at risk of hospital readmission are used by patients and families.

Methods

A mixed methods approach was used to conduct the study: data were collected using medical record audit and semi-structured interviews. Descriptive statistics and thematic analysis were used to analyse the data.

Lessons Learned

Thirty interviews were conducted. Patients were mostly born in Australia (n=22, 73.3%); had a median age of 57 years and 53.3% were male. The median length of stay during the index admission was 1.7 days. Five themes were identified; 1) about the care, 2) hearing and being heard, 3) what's wrong with me, 4) not just about me and 5) all about going home. Most (n=27, 90%) patients were readmitted with a diagnosis directly related to their primary admission diagnosis. The hospital stay for the readmission was 4.0 days which was significantly longer than the index admission length of stay ($p=0.002$).

Implications

The findings of this study will be used to inform the development of a suite of initiatives to enhance the discharge process with the intent of optimising patient and carer experience and reducing unplanned hospital readmissions.

A patient-oriented approach to incorporate preferences into the design of clinical studies: stem cell transplants for people with scleroderma

Magda Aguirre¹, Sarah Munro², Tiasha Burch³, K. Julia Kaal⁴, Tracey-Lea Laba^{5,6}, Nick Bansback^{2,7}, Jennifer Beckett⁸, Mark Harrison^{1,2}

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Objective

To use a patient-oriented approach, with patients and clinicians as research partners, to optimize the design of future scleroderma clinical studies by incorporating patient priorities. The findings will inform a discrete choice experiment.

Methods

We conducted a focus group with people with scleroderma of any stage, living anywhere within British Columbia, Canada using a nominal group technique to identify important factors when considering SCT. To accommodate geographic constraints, we allowed in person and remote participation via a web dial-in. Focus group transcripts were analyzed by two independent researchers and discussed with our patient partners to guarantee fair interpretation and adequate selection of relevant attributes.

Lessons Learned

Eight people participated in the focus group, of which five participated via web dial-in. The highest ranked factor was support from multidisciplinary teams including dietary and mental health support, followed, in order, by out-of-pocket costs, distance from home, the effectiveness of treatment, and logistical concerns (e.g. distance from home).

Implications

Patients' preferences and care vary according to where people live; methods need to be adapted to obtain perspectives of hard to reach populations. Priorities of people with scleroderma for SCT treatment go well beyond clinical effectiveness, typically designated as the primary outcome in clinical studies. Our patient partners were key elements of the research team and supported planning, recruitment, conceptualization of ideas and data interpretation. Knowledge regarding such concerns and the trade-offs patients are willing to make is needed to support better clinical study designs and potentially improve the uptake for novel treatments.

Genomic medicine has arrived: are health service researchers ready to evaluate it?

Symposium Lead: Associate Professor Louisa Gordon, QIMR Berghofer Medical Research Institute

Rationale for Symposium: Genomic medicine is a new medical discipline that involves using genomic information about an individual as part of their clinical care. Genomics is expected to be widely-adopted in many areas of our health system, across all patient groups and settings. However, evaluations of clinical genomics are sorely lacking and there is an urgent need to evaluate clinical applications of genomic sequencing to determine their value to society. There are very important ethical, legal and social issues associated with genomic testing which highlight issues of equity. The opportunity cost of adopting expensive next-generation sequencing tests when there is no shortage of other urgent public health investment needs is also high. Weighing the pros and cons of the initial testing and subsequent flow-on health care decisions and associated costs has significant challenges in economic evaluation. This symposium will highlight the evaluation experiences of the speakers who are active members of the Australian Genomics, Melbourne Genomics and Queensland Genomics alliances and summarise the issues and challenges for health service researchers in future work.

Topic description: Genomic medicine is rapidly being adopted by clinicians demanding to use genomic information for improving care of their patients. There are some significant challenges for program evaluators of this new technology which will be shared and discussed in the symposium.

Presentation one

A/ Professor Louisa Gordon, QIMR Berghofer Medical Research Institute, Population Health Department; Queensland Genomics

Overview: This presentation will introduce genomic medicine and what it means for health services research. Genomic medicine is increasingly used to personalise medical care for patients but it is expensive and there is an urgent need to evaluate clinical applications of genomic sequencing to ensure society recognises their relative value. This presentation will highlight the current evidence base and what health service researchers need to know about this new 'disruptive' technology. There are many challenging issues relating to evaluation and, social, legal and equity issues will also be discussed.

Presentation two

Dr Ilias Goranitis, Centre for Health Policy, University of Melbourne; Australian Genomics Health Alliance, Murdoch Children's Research Institute

Overview: Genomic medicine has transformed patient diagnosis, prognosis and management for many conditions. A key challenge in determining the value of genomics is the wide range of health and non-health benefits they generate to patients and their families. Capturing the value of genomic medicine may require a shift in the conventional methods used in programme evaluations. This presentation will discuss the findings of a stated choice experiment designed to capture the value of genomics in children with neurodevelopmental genetic disorders. The presentation will also reflect on how these findings can be used in a cost-benefit analysis to assist programme evaluations.

Presentation three

Thomas Elliott, QIMR Berghofer Medical Research Institute

Overview: Whole genome sequencing (WGS) can rapidly and accurately identify infectious pathogens. We evaluated the clinical and economic impact of WGS availability in containing a large-scale hospital

outbreak of *E.coli* using a hybrid simulation model of the hospital environment. Model inputs were determined using microbiology and WGS data, hospital admission databases and local clinical knowledge. Over 5 months, an estimated 197 patients were colonised during the outbreak with 75 patients detected. The total outbreak cost was AU\$460,137 with 6.1% spent on sequencing. Without WGS, the outbreak was estimated to result in 352 colonised patients costing AU\$766,921.

Presentation four

Dr Astrid Rodriguez-Acevedo, QIMR Berghofer Medical Research Institute

Overview: Myeloid cancers include a group of disorders including acute myeloid leukaemia (AML). The 2-year survival rate for AML is very poor at 54%. Existing risk stratification methods including clinical, pathological and single gene mutation testing are still unable to accurately predict disease behaviour in a majority of patients. Genomic sequencing offers additional information for doctors to appropriately treat patients with stem cell transplantation, distinguishing between those patients who need it the most and those who do not. This presentation will discuss the evaluation approach to assess the value of introducing this new technology to patients and treating physicians.

The potential of pharmacists to improve health outcomes & reduce inequities in Aotearoa

Symposium Lead: Dr Trudi Aspden, School of Pharmacy, The University of Auckland

Rationale for Symposium: To highlight the positive contributions pharmacists can make towards improving health and reducing inequitable health outcomes related to medicine use, when providing high quality holistic, person-centred medicine management services.

Topic description

Medicines are the most common therapeutic intervention in healthcare. Pharmacists have evolved from being knowledgeable and skilled compounders of medicines, to becoming efficient and accurate dispensers of medicines focussing on source and supply. More recently they have re-professionalised as expert medicine managers. In New Zealand, pharmacists now work in many settings, both independently and as members of multi-disciplinary teams, with a key role of ensuring safe, rational, and effective use of medicines.

The term medicines management encompasses a range of person-centred approaches focussed on optimising peoples' health outcomes from medicines use. This is an important societal role for pharmacists, as last year alone, New Zealand District Health Boards spent \$870.8 million on pharmaceuticals, and funded 4.5 million prescription items for 3.7 million people. Research indicates persistent inequities in medicine use and health. There are also increased economic and systematic pressures on primary healthcare services. Policy documents such as the Pharmacy Action Plan and Integrated Pharmacist Services in the Community encourage exploration into new ways of working and expansion of the range of pharmacy services available. The underutilised pharmacy profession has been challenged to work at the top of its scopes of practice, and to broaden and create roles that require scope extension. These measures aim to increase the public's access to pharmacists' expertise, reduce health inequities and meet health system demands. Using the findings from research recently conducted at the School of Pharmacy, University of Auckland, this symposium will provide insights into areas of pharmacy aiming to achieve these goals.

Presentation one

Session Introduction

Dr Trudi Aspden¹

¹School of Pharmacy, The University of Auckland

Overview:

This presentation will summarise the rationale for the symposium.

Presentation two

New Models of Care: Access to Pharmacist-led Services in General Practice in New Zealand

Robert Haua¹

Associate Professor Jeff Harrison¹

Dr Trudi Aspden¹

¹School of Pharmacy, The University of Auckland

Overview:

When most people imagine a pharmacist, they think of a person standing in a community pharmacy dispensary. Pharmacists are, however, increasingly becoming integrated into other primary healthcare

settings. Pharmacist-led services within general practice support the New Zealand Health Strategy's aim to provide services closer to home, using a one-team approach. This talk will present findings from a PhD project evaluating different models of pharmacist integration into general practice in New Zealand. Factors contributing to the success of various models will be discussed, alongside the barriers preventing equitable access to pharmacist-led services in general practices throughout the country.

Presentation three

Reaching out beyond hospital walls: Optimising medicines use for people with intellectual disability in the community

Adele Print¹

Dr Trudi Aspden¹

¹School of Pharmacy, The University of Auckland

Overview:

People with intellectual impairment have worse health outcomes than the general population in New Zealand, with similar trends seen globally. This group have complex health needs and are disadvantaged in terms of their life expectancy. The New Zealand Disability Action Plan has prioritised improving access to health services for people with intellectual impairment. This presentation will describe a novel collaboration between a hospital pharmacy department and an independent charitable trust to provide medicines review services to optimise residents' medicines and improve health outcomes. An analysis of the causes of medicines-related problems that were identified will be discussed.

Presentation four

Improving the accessibility of community pharmacy services to disabled people in New Zealand

Jason Zhou¹

Dr Trudi Aspden¹

Dr Laura Wilkinson-Meyers²

¹School of Pharmacy, The University of Auckland

²School of Population Health, The University of Auckland

Overview:

Most New Zealanders will need to use pharmacy services at some stage of their lives. Around 24 percent of people in New Zealand experience disability, yet little is known about the accessibility of community pharmacy services to disabled people. This PhD project has engaged with pharmacist and disabled communities to explore the enablers and barriers to accessing community pharmacy services for disabled people. Using co-design and mixed methods approaches, this research seeks to develop an action plan to inform future initiatives aiming to improve access to community pharmacy services for disabled people in New Zealand.

FRIDAY 6 DECEMBER 2019

Concurrent sessions 9A – 9G

9A HSR and indigenous services and communities |

9A.1 10:15 | Aboriginal Kidney Care Together - Improving Outcomes Now. Janet Kelly, University of Adelaide; Kim O'Donnell, Flinders University Australia

9A.2 10:30 | Anti-Racism and anti-colonial framework in clinical practice: the diabetes integration project's model of care. Lorraine McLeod, First Nations Health & Social Secretariat of Manitoba Canada

9A.3 10:45 | Health Services for First Nations people with diabetes in Ontario Canada. Michael Green, Queens University Canada

9A.4 11:00 | From error to co-endeavour, building Māori equity advancement view of New Zealand health system quality dashboard with Te Tumu Whakarae. Ying Li, Richard Hamblin, Health Quality & Safety Commission; Tricia Keelan, Riki Nia Nia, Te Tumu Whakarae New Zealand

9B Health Economics |

9B.1 10:15 | One size doesn't fit all: Evidence on public preferences for exercise and nutrition programs and the role of incentives. Jemimah Ride, Health Economics Unit, Melbourne School of Population and Global Health, University of Melbourne Australia

9B.2 10:30 | Cost-effectiveness of treatments for stable coronary artery disease in Australia. Victoria McCreanor, Queensland University of Technology Australia

9B.3 10:45 | Using DCE to measure the value of a diabetes prevention program. Adriana Nunez, University of California, Merced United States

9B.4 11:00 | Do people's EQ-5D-5L preferences vary according to their chronic disease status? Trudy Sullivan, University of Otago New Zealand

9B.5 11:15 | Why telehealth integration doesn't always save money for the health system. Centaine L. Snoswell, Centre for Health Services Research, The University of Queensland Australia

9B.6 11:20 | Are we accurately capturing health preferences from people with poor health literacy? Alison Pearce, University of Sydney Australia

9B.7 11:25 | Patterns of multi-morbidity and impact on quality of life measured by EQ-5D-5L utility in an Australian general population sample. Tracy Comans, University of Queensland Australia

9C Integrated Data and HSR Symposium |

9C.1 10:15 | Demonstrating the value of enduring integrated data assets in health services research. Symposium Lead: Louisa Jorm, University of New South Wales, Australia. Presenters: Louisa Jorm, University of New South Wales, Rosemary Korda, ANU, Australia; Rod Jackson, University of Auckland, New Zealand; Michael Falster, Claire Vajdic, University of New South Wales, Australia

9D Improving Quality in Health Services |

9D.1 10:15 | Coordination of Care: Experiences of information sharing between providers for patients aged 45 and over. Sarah Jones, AIHW Australia

9D.2 10:30 | Quality of care Indicators in End Stage Renal Disease: A Comparison of Urban and Rural Care Models in a Canadian Province. James Zacharias, University of Manitoba Canada

9D.3 10:45 | Delivering better quality, better value maternity care: Insights from a critical ethnography in a metropolitan maternity unit. Carly Dyer, Queensland University of Technology Australia

9D.4 11:00 | Patient safety events experienced by culturally and linguistically diverse ethnic minority patients: A systematic review. Ashfaq Chauhan, University of New South Wales Australia

9D.5 11:06 | Using Video Reflexive Ethnography (VRE) to Improve Communication about the HPV Vaccine with Somali Immigrant Patients in Primary Care in Minnesota. Rebekah Pratt, University of Minnesota United States

9E Interventions to Improve Access |

9E.1 10:15 | Evaluating the impact of introducing nurse-supported consultations on access to rheumatology care in British Columbia, Canada. Mark Harrison, The University of British Columbia Canada

9E.2 10:30 | An Australian randomized controlled trial of nurse home visiting (right@home): child and maternal outcomes at child age 4 years. Sharon Goldfeld, Murdoch Children's Research Institute Australia

9E.3 10:45 | Understanding the characteristics of young people in Victorian hospitals who are admitted from, or discharged to, residential aged care. Renata Morello, School of Public Health and Preventive Medicine, Monash University Australia

9E.4 11:00 | Evaluating Outcomes Based Care for Vulnerable Older People: Challenges and lessons learned from a complex program evaluation. Joanne Epp, Macquarie University Centre for the Health Economy Australia

9E.5 11:15 | Not the right place': Non-traumatic dental presentations in NZ's emergency departments. Moira Smith, University of Otago, Wellington New Zealand

9G ASPREE - Opportunities for Studying a Community Population of Seniors Symposium |

9G.1 10:15 | Opportunities for studying a community population of Australian seniors. Symposium Lead: Jane Banaszak-Holl, Monash University, Australia. Presenters: John McNeil, Jane Banaszak-Holl, Rory Wolfe, Danijela Gasevic, Monash University Australia

POSTERS

P1 Using discrete choice experiment to create a priority list of chronic non-communicable diseases to guide their health research spending. Saeideh Babashahi, Otago University New Zealand

P2 Prognostic Analysis of Cancer Patients with Mechanical Ventilation in Adult Intensive Care Units. Shu-Chen Hsing, Department of Respiratory Therapy, Chi-Mei Medical Center Taiwan

P3 Screening for cytomegalovirus infection during pregnancy: A deterministic decision analysis. L.-Rachid Salmi, University of Bordeaux/INSERM/CHU France

P4 Information-seeking behavior of medical residents: Policy to reduce hospital visits. Yu Hua Yan, Tainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Taiwan

P5 The outcomes and factors associated with diabetes care: A diabetes shared care network in Taiwan. Yu Hua Yan, Tainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Taiwan

P6 Compromised cancer-specific survival among under-insured Chinese patients with breast cancer: a prospective cohort study. Donghao Lu, Karolinska Institutet China

P7 A comparison of the Cox model to the Fine-Gray model for survival analyses of re-fracture rates. Huei-Yang Chen, Agency for Clinical Innovation, NSW Australia

P8 The Impact of Chemotherapy Induced Peripheral Neuropathy. Philip Haywood, CHERE Australia

P9 How long and how much? Wait times and costs to private child mental health specialists. Kim Danziel, University of Melbourne, Australia

P10 Positive responses to commitment questions increase uptake of emollient use to prevent skin tears: Evaluation of a targeted national intervention. Anna Moffat, University of South Australia, Australia

P11 Geographical variation in hospital use at the end of life among New South Wales decedents. Hassan Assareh, Agency for Clinical Innovation Australia

P12 Quantifying coronary artery disease complexity and comparing health outcomes among First Nations and non-First Nations angiography patients. Annette Schultz, College of Nursing, University of Manitoba Canada

P13 Power to Quit 2: The experience of participating in a smoking cessation RCT for smokers experiencing homelessness, who also use alcohol. Rebekah Pratt, University of Minnesota United States

- P14 Chart Reviews: Situating Indigeneity within a research context. Moneca Sinclair, College of Nursing, University of Manitoba Canada
- P15 Process improvement and acute ischemic stroke thrombolytic drug administration safety. Yu-Hsia Wang, Nurse Department Taiwan
- P16 Exploring The Views of First-Visit Outpatients on Hospital Service Quality by Customer Satisfaction Survey. Yu-Hsia Wang, Tainan Municipal Hospital Nurse Department Taiwan
- P17 Reconciliation in Public Health Policy and Health Service Delivery - A Scoping Review. Stephanie Van Haute, University of Manitoba Canada
- P18 Identifying barriers and enablers to best practice in pediatric physical therapy: A retrospective clinical record review. Edward Gorgon, The University of Sydney Australia
- P19 Key documents relating to the future of pharmacy in New Zealand: Perceptions of recent BPharm graduates who have left or are considering leaving the profession. Trudi Aspden, School of Pharmacy, The University of Auckland New Zealand
- P20 Digital health patient education platform to improve health literacy and translate best-practice outcomes for post-discharge hip fracture care: a mixed methods study. Lalit Yadav, The University of Adelaide, Australia
- P21 Effect of Clinical Care Pathways on Health-Related Quality of Life and Physical Function Following Fragility Fracture: A Meta-Analysis. Jason Talevski, The University of Melbourne Australia
- P22 Intersectoral Collaboration for Aboriginal Youth Health Promotion in Northern British Columbia, Canada. Innocent Ndateba, University of British Columbia Australia
- P23 Assessing the utility of influenza forecasting models in health services decision making. Nicole White, QUT Australia
- P24 Improving patient experience and delivery of scalp cooling treatment in ambulatory cancer care settings in Australia. Jingjing He, The University of Sydney Australia
- P25 Capacity building for evidence-based local health and wellbeing planning. Geraldine Marsh, La Trobe University Australia
- P26 Clinical Pharmacist Facilitators in Primary Care: A descriptive study of their roles and services provided within general practices of Southern New Zealand. Sivamanoj Yadav Boyina, University of Otago New Zealand
- P27 Determining priorities for a Cerebral palsy quality of life instrument using happiness levels: a discrete choice experiment. Mina Bahrampour, Griffith University Australia
- P28 Which interventions for managing osteoarthritis do stakeholders want? Jason Chua, University of Otago New Zealand
- P29 Carer expectations: the role of health services in providing preventive care for nutrition and physical activity risks to people with a mental health condition. Jenny Bowman, University of Newcastle Australia
- P30 International migration of health professionals and global inequity in human resources for health: Failure of national and global health governance. Australia
- P31 The role of the Maternity Liaison Officer in provision of primary health care: A values-based service model. Carolyne Njue, University of Technology Sydney Australia
- P32 Factors of Physical Therapy Service Volume and Payment in Medicare in the United States. Mei Zhao, University of North Florida, United States
- P33 A Systems Thinking Approach for Universal Health Coverage (UHC), Part One: A Survey of Products, Problems and Protocols in Health Information Systems. Maria Cristina Bautista, Ateneo de Manila University Philippines
- P34 Prevalence of frailty in elderly inpatients using hospital administrative data in New South Wales. Hassan Assareh, NSW Agency for Clinical Innovation Australia
- P35 Taking Charge after Stroke: Cost-effectiveness analysis of a randomized controlled trial of a person-centered intervention to promote self-rehabilitation. Braden Te Ao, The University of Auckland New Zealand

P36 Auckland Concussion services Cost-Effectiveness (ACCESS) Study: Proposed methods. Braden Te Ao, The University of Auckland New Zealand

Aboriginal Kidney Care Together - Improving Outcomes Now

Janet Kelly¹, Kim O'Donnell^{1,2,3}, Odette Pearson^{1,2}, Shilpa Jesudason^{1,4}, Stephen McDonald^{1,4}, Melissa Arnold- Chamney¹, Tahlee Stevenson¹

¹ University of Adelaide, ² South Australian Health and Medical Research Institute, ³ Flinders University, ⁴ Central Northern Adelaide Renal & Transplantation Service

Objective

To meaningfully involve Aboriginal care recipients in improvement strategies for hospital and dialysis based services in Central and Northern South Australia.

Methods

This Health Translation project identified gaps in care and developed responsive strategies for improvement at local, service, jurisdictional and national levels. A range of collaborative processes including community consultations, focus groups and health journey mapping brought together consumers, family members, health professionals, peak bodies, researchers and educators to identify barriers, enablers and best practice examples. The aKction (Aboriginal consumer) Reference Group provided cultural leadership and governance, and a multi-disciplinary Implementation Working Group addressed consumer priorities and led needed changes. Illustrative case studies were developed for health service training and academic medical, nursing and health sciences courses.

Lessons Learned

Multiple strategies are required to address the serious disparities in health outcomes for Indigenous peoples. Aboriginal people are experts of their own health care and wellbeing needs, but this is not always recognised or utilised within mainstream health care systems. Equity in action involves establishing new mechanisms within healthcare systems and ensuring applicability and sustainability. The research has established and embedded new consumer feedback pathways that can be used for ongoing feedback and quality improvement.

Implications

Hospitals now need to address six new Aboriginal and Torres Strait Islander specific actions as part of the National Safety and Quality Health Service Standards. This study developed practical and pragmatic ways of working in partnership to address consumer, clinical and wellbeing needs, to improve cultural competency and the health care environment.

Anti-Racism and anti-colonial framework in clinical practice: the diabetes integration project's model of care

Barry Lavallee¹, Caroline Chartrand¹, and Lorraine McLeod¹

¹First Nations Health and Social Secretariat of Manitoba

Objective

The Diabetes Integration Project (DIP) is one of the first clinical care interventions developed by First Nation leadership to address secondary complications associated with the diabetes epidemic in First Nation communities in Manitoba; the model of care mitigates First Nation specific racism in the clinical encounter.

Methods

The success of this First Nation led clinical intervention points to DIP's reliance on the employment of point of care testing technology, engaging First Nation nursing workforce, and creating a clinical environment that celebrates community-based strengths and resources.

Lessons Learned

Relying favorably on a biomedical approach did not increase success for the clients involved in the program. A two-pronged approach emerged relying on the Diabetes Canada clinical practice guidelines to address chronic disease (biomedical) and, the other, an approach that incorporates community strengths, identity and language couched within an anti-racist and anti-colonial framework. When approached within this clinical environment, clients' health outcomes improve.

Implications

The employment of an anti-racist and anti-colonial clinical framework requires active support through quarterly case reviews to facilitate an opportunity for providers to apply their knowledge and skills. This approach is First Nation centered and draws upon a deeper understanding of the origins and historical context of community challenges in addressing this epidemic.

Networks to understand patient attachment to their primary care provider. Primary care Reform in Ontario in 2019

Michael E. Green^{1,2}, Eliot Frymire^{1,2}, Liisa Jaakkimainen², Aisha Lofters², Kamila Premji^{2,3}, Tara Kiran^{2,5}, Imaan Bayoumi^{1,2}, Shahriar Khan², Richard H. Glazier^{2,4,5}

¹Department of Family Medicine Queen's University, ²ICES, ³University of Ottawa, ⁴University of Toronto, ⁵CIHR Institute of Health Services and Policy Research

Objective: Recent primary care reforms in Ontario, Canada, have resulted in a restructuring of primary care at the local or regional level. An important aspect of these health care reforms is to develop models of care that minimize unattached and underserved patients. Accurate measurement of who is and is not attached is important for these initiatives. The objective of this work is to improve the definition of the unattached patient in health administration datasets.

Methods: Using health administrative data from ICES, we refine the algorithm for measuring attachment to a family physician. This approach will highlight attachment by geographic subregions within the province of Ontario. The use of geographic information system(GIS) software mapping techniques will use this data to examine province-wide and local small area-level distribution of who is unattached and poorly attached and the proportion of attachment to primary care physicians and primary care teams. The design will include adjustment for age, gender, co-morbidity (John's Hopkins ACG and RUB), SES, and rurality (RIO Band).

Lessons learned: With these networks, most patients are attached in major urban centres.. Those who are not attached are that 2 to 3% of the population who have had no contact with the health care system.

Implications: The study will outline the proportion and distribution of unattached and underserved patients relative to health care providers in southern Ontario by sub region. We anticipate regional variation in attachment levels will be directive for resourcing and prioritization of health programming in specific regions and sub regions

Title: **Health Services for First Nations people with diabetes in Ontario Canada**

Michael E. Green^{1,3}, Carmen Jones², Morgan Slater¹, Baiju Shah⁴, Shahriar Khan³, Eliot Frymire^{1,3}, Jen Walker^{3,4}

¹Department of Family Medicine, Queen's University, ²Chiefs of Ontario, ³ICES, ⁴School of Rural and Northern Health, Laurentian University

Objective :. Key health services metrics for first nations people are reviewed in this presentation.

Methods:. Using health Administration data we looked at a series of outcomes that are important to first nations health. These included measures of access to primary care, Continuity of care, Hospital admissions for ambulatory care-sensitive conditions, Specialist care: endocrinology and general internal medicine, and Comorbid conditions. Adjustments were made for age, sex, rurality and comorbidity.

Lessons learned: Significant differences in the use of primary care exist between First Nations people and other people in Ontario. First Nations people in Ontario with diabetes were less likely to have a primary care physician compared to other Ontarians with diabetes. 28% of First Nations people in Ontario living with diabetes do not have an assigned family physician or team. Among those with a family physician, continuity of care, is lower among First Nations people with diabetes (60%) compared to others in Ontario (74%).

Implications: First nations people in Ontario have reduced access to health care services than others in the province of Ontario. The continuing impact of colonization as a key barrier to health care access is an important factor. Specific policy recommendations regarding how best to address these gaps and imbalances in the provision of health care services are suggested.

From error to co-endeavour, building Māori equity advancement view of New Zealand health system quality dashboard with Te Tumu Whakarae

Ying Li¹, Tricia Keelan², Riki Nia Nia², Richard Hamblin¹

¹ Health Quality Safety Commission,

² Te Tumu Whakarae

Objectives

This paper describes how the Health Quality and Safety Commission (the Commission) addressed the failure of its initial dashboard to present data about equity appropriately. A key part of this is about building and rebuilding relationships in the light of error and committing to genuine co-design and partnership.

Methods

In May 2018, the Commission published a new data presentation tool to aggregate indicators of health service quality across the country. Unfortunately, the presentation of data about equity failed; normalising high levels of inequity of outcome, particularly for Māori populations. The Commission apologised, removed the offending data and undertook a [PDSA](#) -facilitated redesign, working closely with Māori stakeholders to co-design an approach which emphasised both the scale and effects of inequity. A further innovation with Te Tumu Whakarae created the Māori equity advancement view.

Lessons Learned

There isn't a "one-size fits all" solution for data visualisation tools. Both the process and outcome of this dashboard revision project contain lessons on how shared endeavour creates better solutions.

Implications

The equity view of the dashboard ([click here to access](#)) has been supported by various Māori stakeholders, while work continues to constantly improve presentation, indicators and data sources used. Working closely with Te Tumu Whakarae in this revision established a partnership between the Commission and Māori stakeholders. The specific Māori equity advancement view has the potential to be an useful tool to highlight health inequity, and work as a support to drive improvement in closing gap between Māori and non-Māori health outcomes.

Health system quality dashboard (Internal consultation version)

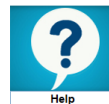
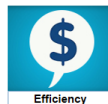
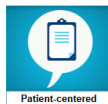


Table of contents

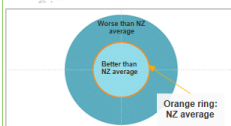
Index of indicators

Dashboard of health system quality: Auckland DHB



Dashboard release
31/05/2019

District health board (DHB) area
Auckland DHB



Each dot is an indicator, hover over to see what they are.

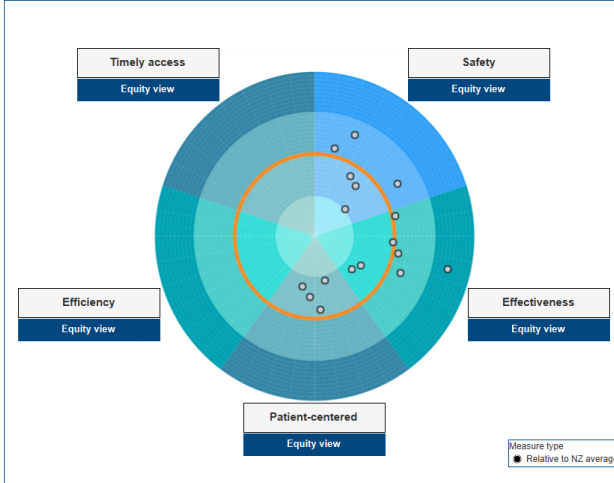


Table of contents

Cover page

Help

One size doesn't fit all: Evidence on public preferences for exercise and nutrition programs and the role of incentives.

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Objective

Novels ways to promote exercise and dietary change are relevant to healthcare systems globally given rising health consequences of inactivity and unhealthy diet. This study aimed to understand preferences for exercise and nutrition programs, and to investigate financial and non-financial incentives to promote uptake.

Methods

A discrete choice experiment among 333 nationally representative Australian participants, with each choice set including a nutrition program, an exercise program, both programs, and the individual's status quo. Programs were described by type, cost, average weight loss, duration, alternative-specific attributes, and incentives for weight loss including cash reward, upfront cash payment lost without goal achievement, group text messages of comparative achievement, and charitable donations. Preferences were analysed using a latent class model.

Lessons learned

The model identified three classes; each class responded differently to incentives. The largest class (48%) were not motivated by weight loss and avoided loss of up-front payment, but preferred cash rewards and group text messages. Two smaller classes (27% and 25%) were motivated by weight loss, but one preferred up-front payments and avoided group text messages, while the other had little response to incentives. Effects of incentives were moderated by degree of weight loss and cost.

Implications

Financial and non-financial incentives have potential to increase uptake of exercise and nutrition programs, but must be carefully targeted to avoid counterproductive responses. A large segment (nearly half) displayed low engagement but responded to cash rewards and group sharing of comparative achievement data.

Cost-effectiveness of treatments for stable coronary artery disease in Australia

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Objective

The objective of this research was to assess the long-term cost-effectiveness of the three main treatments for stable coronary artery disease, medical therapy, percutaneous coronary intervention, and coronary artery bypass graft surgery, in the Australian context.

Methods

We used a Markov model of health service use for patients with stable coronary disease to assess the lifetime costs and health outcomes associated with medical therapy, percutaneous coronary intervention and coronary artery bypass graft surgery. To estimate parameters for costs, health utility and likelihood of repeat treatment or hospitalisation, we synthesised data from three data sets: linked Medicare Benefits Schedule and Pharmaceutical Benefits Scheme data from QSkin, private health insurance claims data, from HAMBS, and health-related quality of life data from the Victorian Cardiac Outcomes Registry.

Results are presented as cost per QALY gained, and assessed against a cost-effectiveness threshold of \$28,000, which represents the opportunity cost of investing in new technology.

Lessons Learned

The results showed that medical therapy is high-value and that routine use of percutaneous coronary intervention in patients with stable coronary artery disease is low-value. Our results indicate that savings of AU\$36 million could be made for every 1,000 patients diverted away from early invasive treatment.

Implications

Medical therapy is high-value and should remain the foundation for treating stable coronary artery disease in Australia. Health services and the health of Australians would benefit from diverting patients away from early percutaneous coronary intervention and reinvesting resources into medical therapy.

Using DCE to measure the value of a diabetes prevention program

Ravi Singh and Paul Brown

University of California, Merced

Objective

Funders need to understand the value the public places on community based chronic disease prevention programs. Use of cost-per-QALY gained has been criticized for ignoring factors such as equity and other factors that might be important when prioritizing. This study compares the public's value of a diabetes prevention program as measured from a discrete choice experiment (DCE) with the value based on the QALYs gained.

Methods

The attributes used in the discrete choice experiment (DCE) were developed in consultation with a community advisory group. Participants (N=500, mean age 37.63) in the DCE were presented with 16 choice sets and asked to choose between program 1, program 2, or neither program. The choices contained attributes involving the community problem the program is focusing on, the targeted group, the cost of the program, program funder, program effectiveness, and when the results will be seen. A fixed effects conditional logistic regression was used to estimate the model, and willingness to pay estimates (WTP) were used to monetarize the outcomes.

Lessons Learned

The results suggest a strong preference for public health programs, with all of the factors seen as important. Willingness to pay estimates were highest for depression prevention programs, followed by violence, heart disease, and lastly diabetes prevention programs. However, the values places on the programs were less than those associated with a \$50,000 per QALY. In addition, the participants placed little additional value on outcomes that reduced health disparities.

Implications

DCEs are an alternative way to value public health programs.

Do people's EQ-5D-5L preferences vary according to their chronic disease status?

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Objectives

To illustrate how personal EQ-5D-5L value sets can be used to explore the health preferences of subgroups of the population.

Methods

A new online valuation tool for creating social and personal EQ-5D-5L value sets was recently developed and trialled in New Zealand. Using EQ-5D-5L data collected from a representative sample of New Zealanders (n=2468), the demographic characteristics, EQ-5D-5L preference weights, and self-reported health status of participants were described by co-morbidity group. A multinomial response model was estimated to determine whether the patterns in people's preferences (i.e. for each dimension of the EQ-5D-5L) varied systematically with chronic disease status and self-reported health, controlling for variables such as age, ethnicity and income.

Lessons Learned

Fifty five percent of participants indicated they have or had, a chronic disease lasting six months or longer with 30% of participants having two or more chronic health conditions. The most common chronic health conditions were depression, followed by anxiety, arthritis, disorders of the neck or back, asthma, diabetes, and heart disease. When grouped together into common co-morbidity groups, pain was the most common chronic disease condition, followed by mental illness, respiratory disease, cardiovascular disease, diabetes, bowel disease and cancer. Preliminary modelling indicates that there are differences in people's preferences depending on chronic disease status.

Implications

As chronic health conditions are associated with high rates of morbidity and mortality, ever-increasing health care costs and rising inequality, understanding the relationship between chronic disease status and HRQoL is likely to be of interest to health providers, funders and policymakers.

Why telehealth integration doesn't always save money for the health system

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Objectives

To determine the elements of telehealth integration that have the potential to result in unexpected cost increases.

Methods

A scoping review was undertaken to meet the study aims. Initially, literature searches were conducted using broad terms for telehealth and economics to identify economic evaluation literature in telehealth. Then, the investigators conducted an expert focus group to identify domains where telehealth could reduce health system costs, followed by targeted literature searches for corresponding evidence.

Lessons Learned

It is often reported in literature or assumed by decision makers that integrating telehealth into the health system will reduce the overall costs of care delivery and improve system sustainability. The cost analyses reviewed demonstrated a low proportion of telehealth projects that reduced costs for the health system in the short-term. The expert focus group identified four areas of potential savings from telehealth; productivity gains, reductions in secondary care, alternate funding models and telementoring. Although telehealth has the potential to reduce travel costs, and triage cases for appropriate procedural or specialist review", the costs associated with set-up and maintenance of the system and increased administration can overshadow these savings.

Implications

Health services considering implementing telehealth should be motivated by benefits other than cost reduction such improved accessibility, greater patient-centricity and societal cost benefit. The available evidence has indicated that while telehealth provides overwhelmingly positive patient benefits, and increases productivity for many services, current evidence suggests that it does not routinely reduce the cost of care delivery for the health system.

Are we accurately capturing health preferences from people with poor health literacy?

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Objectives

Discrete choice experiments (DCEs) are increasingly used to elicit preferences for health care. DCEs are often complex for participants to complete, and the aims of our research were to determine whether people with lower health literacy are: less likely to complete a DCE, report more difficulty completing a DCE, or display less consistent preferences.

Methods

A DCE survey about cancer treatment was run with an online panel sample representative of the Australian population and included questions about health literacy and difficulty with the DCE. Along with descriptive and chi-square comparisons of the proportion of respondents reporting low health literacy and difficulty with the DCE, a heteroscedastic conditional logit model was run to assess whether those with low health literacy had less consistent preferences.

Lessons learned

731 participants completed the DCE. Low health literacy was reported by 10.4% of respondents, below the Australian average of at least 15%. People with low health literacy were significantly less likely to report they understood the concept of making a choice (70% vs 91%, $p < 0.001$), although were no more likely to report attribute non-attendance, hypothetical bias or learning heuristics. People with lower health literacy exhibited greater error variance (HET -0.79, $p < 0.001$).

Implications

People with low health literacy appear less likely to complete a DCE, and those who do find it more difficult and express less consistent preferences. However, over half of Australians have less than adequate health literacy, and thus it is important to consider how to accurately capture health preferences from this sub-population.

Patterns of multi-morbidity and impact on quality of life measured by EQ-5D-5L utility in an Australian general population sample

Tracy Comans¹

¹The University of Queensland

Background

There is limited information at the Australian population level on impacts of multi-morbidity on quality of life. This data is needed to inform health policy and planning.

Methods

Data was drawn from a general population sample (n=5,407) obtained by online survey for a valuation study through the pureprofile company. Participants were selected to broadly represent similar age and gender profile of the Australian population. Participants answered general demographic questions including income, marital status and education level and whether they had any of fifteen different conditions as well as completing the EQ-5D-5L questionnaire. These were further categorised into seven major diagnostic category (MDC) groupings. Utility was derived using pilot Australian values for the five level instrument.

Results

Around half the sample reported no conditions. The most prevalent MDC were mental health conditions (32% of people) respiratory (17%), musculoskeletal (11%) and endocrine (10%). Preliminary analysis showed an expected linear relationship for utility with the total number of MDCs, ranging from 0.87 for none to 0.50 for three or more. For single conditions, nervous disorders and musculo-skeletal conditions had the biggest impact on utility with means of 0.48 (SE 0.04) and 0.58 (SE 0.01) respectively. The most common multi-morbid condition was mental+respiratory, with utility of 0.55 (SE 0.01) Regression analysis indicated that being male and higher education levels were more protective on utility scores however income showed protective effects at very low and high levels.

Discussion

People with increasing number of multi-morbid conditions and with arthritis and mental health problems have substantially lower quality of life than other people. Understanding the extent of this in the Australian population will help to target appropriate services.

Demonstrating the value of enduring integrated data assets in health services research.

Symposium Lead: Professor Louisa Jorm, Director, Centre for Big Data Research in Health, University of New South Wales, Co-convenor, RADiANT (Australian and New Zealand **Real-World Data Network**)

Rationale for Symposium:

Demonstrating the value of enduring integrated data assets in health services research

Topic description

RADiANT, the Australian and New Zealand Real-World Data Network, was established in June 2018 in response to the findings and recommendations of the Australian Government Productivity Commission into Data Availability and Use. It is a researcher-led and researcher-focused scientific network established to promote policy that supports good practice in the access to and use of real-world data for research. Multi-agency partnerships in Australia and New Zealand have designed and built integrated data assets to enable public good health research. But there is much more to be done, particularly in Australia. Researchers have a leadership role in the use of public data for public good research. They have a responsibility to help build and maintain the social license for these assets, to work in partnership with agencies to maximise the research utility of the assets, and to actively engage and contribute to the design and implementation of related legislation. This engagement is required to achieve equitable, efficient, innovative, sustainable and secure data access and use. In this Symposium, you will learn about three integrated data assets, and some of the pivotal discoveries generated from them. You will also learn about the current real-world data policy reforms, and related data initiatives, being contributed to by RADiANT members.

Presentation one

Associate Professor Rosemary Korda
Fellow, National Centre for Epidemiology and Population Health, Australian National University

Overview: The Multi-Agency Data Integration Project (MADIP) is a partnership among Australian Government agencies to combine information on health, education, government payments, personal income tax and the Census. We will demonstrate the utility of these data to inform policy on health care financing, by presenting methods and findings from our study on out-of-pocket costs. We used linked personal income tax, Census, Social Security, National Health Survey, mortality, MBS and PBS data to describe the distribution of out-of-pocket costs for medical services and prescriptions in relation to ability to pay and how this varies by sociodemographic characteristics and key health conditions.

Presentation two

Professor Rod Jackson
Professor of Epidemiology, Faculty of Medical and Health Sciences, The University of Auckland

Overview: We established three overlapping 'big-data' cohort studies in NZ, a primary care cohort (500,000 +), a hospital cohort (100,000 +) and a national cohort (2m +). These cohorts are electronically linked to routine national health datasets of laboratory investigations, drug treatment, hospitalisations and deaths. We use these linked data to: i. develop vascular and bleeding risk prediction algorithms to assist clinicians estimate vascular risk in different populations; ii. investigate under- and over-treatment of vascular risk; iii. develop a 'big-data' vascular health information platform to support initiatives to increase appropriate treatment, reduce inequities and improve overall vascular health.

Presentation three

Dr Michael Falster

Biostatistician and Research Fellow, Centre for Big Data in Research and Health, University of New South Wales

Overview: The National Data Linkage Demonstration Project (NDLDP) was established to demonstrate the value of national linked data to inform health planning and policy, with the Australian Institute of Health and Welfare linking five years of hospital, emergency department, pharmaceutical, medical services and mortality data for NSW and Victoria. Using the NDLDP we identified significant underuse and variation in post-discharge pharmacological care for cardiac patients, demonstrating this novel linkage enabled evaluation of care pathways across hospital and community-based services. We also identified key gaps in the data, highlighting the value of embedding researchers in development of these enduring data assets.

Presentation four

Associate Professor Claire Vajdic
Co-convenor, RADiANT

Overview: Public data holdings have enabled internationally recognised research and vital policy and practice change. Australia is at a crossroads in terms of policy reforms for data governance and data infrastructure, with major ramifications for the future of real-world data science. We will give an overview of the current data access and use policy reforms and related data initiatives, being contributed to by RADiANT members. We will summarise how far we have come, and where we are heading. We will also reinforce the case for researchers shaping data use and access design principles, and achieving and maintaining a social license.

Coordination of Care: Experiences of information sharing between providers for patients aged 45 and over

Sarah Jones¹

¹AIHW, Australia

Objective

To present new findings on gaps in information sharing between providers using patient-reported measures from the 2016 Survey of Health Care (SHC)

Methods

The SHC collected data on respondents' experiences with health professionals and the health system including whether their GP had an understanding of the patient's health-care history, GP seemed informed about specialist or hospital care or whether their test results were available at the time of their appointment. These responses were from a representative sample of the 8.8 million Australians aged 45 and over who had seen a GP in the previous 12 months. It oversampled those with high health-care needs.

Lessons Learned

- People with no usual GP were 2–3 times as likely to report poor sharing of information as those with a usual GP.

Of patients:

- who visit an emergency department, 1 in 4 say information is not shared with their GP
- who were admitted to hospital, 14% reported that their GP was not informed of their follow-up needs
- who live in remote areas are more likely to say their GP is not informed of visits to other providers
- who rated their health as poor, 1 in 5 reported not receiving enough information about their care and treatment, compared to 1 in 25 who rate their health as excellent.

Implications

Problems emerge when people move between care systems. New technologies create opportunities for timely sharing of information between providers and across the health system and to create better coordinated, less fragmented care patients.

Quality of care Indicators in End Stage Renal Disease: A Comparison of Urban and Rural Care Models in a Canadian Province

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¹Max Rady College of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada

Objective

The Manitoba Renal Program's Local Renal Health Centre (LRHC) delivers care collaboratively with kidney specialists, rural family physicians, and interdisciplinary care teams in both urban and rural sites. This study aimed to evaluate the quality of care in a model of remote hemodialysis (HD) care compared to an urban care model

Methods

We performed a retrospective cohort study of incident adult HD patients treated in Manitoba's LRHCs compared with patients treated in urban tertiary care centres between 1999 and 2010. This was accomplished using clinical administrative databases.. Differences in quality of care indicators were evaluated using the Chi-squared test, hospitalization rates using negative binomial regression, and survival using Cox proportional hazards models.

Lessons Learned

Care in rural sites was delivered in smaller units where there was a high level of continuity of care by nurses and doctors, with careful oversight by urban-based specialists and senior nurse experts. This contrasted to a more discontinuous model in urban HD sites. Between 1999 and 2010 Manitoba had 3,139 incident hemodialysis starts (510 in LRHCs). Quality of care was generally similar or better in Urban sites. No statistically significant differences in hospitalization rates were observed. In all models mortality was shown to be similar between patients who received treatment in LCDUs and their urban counterparts (aHR 0.90, 95% CI- 0.79 to 1.02).

Implications

The LRHC model offers HD patients the ability to live in their home communities and maintains comparable outcomes to patients treated in urban tertiary care settings.

Delivering better value, better quality maternity care: Insights from a critical ethnography in a metropolitan maternity unit

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Objective

Only 8% of Australian women can access a continuity midwifery model of maternity care, despite evidence that, compared to standard care, this model delivers higher maternal satisfaction and lower rates of obstetric intervention at a lower cost. While emerging evidence suggests that non-clinical factors underpin current unacceptably high levels of obstetric intervention, these are poorly understood. A longitudinal critical ethnography was undertaken in a metropolitan maternity unit in Queensland to better understand the non-clinical factors that drive the over-medicalisation of maternity care and the mechanisms by which continuity midwifery models deliver better quality, better value care.

Methods

A maximum variation sample of thirteen women was shadowed from booking-in visit to six weeks postpartum. Participants were primiparas and multiparas engaged with private midwifery, caseload midwifery, standard clinic, GP-shared care, obstetrician shared-care, and private obstetric care models. One hundred and one antenatal care consultations were observed, audio-recorded, transcribed and analysed via conversation analysis.

Lessons Learned

Women in continuity midwifery models built rapport with their birth attendant, discussed fears, were given more comprehensive information, and developed a more active stance towards decision-making and childbirth. Women in standard and shared-care models received mainly risk-related information and generally adopted a compliant, passive stance towards decision-making and birth. In medically-led models, more defensive practice and obstetric intervention were observed, driven by fear of litigation and a culture of standardisation.

Implications

This research identified social and structural factors observed to influence over-medicalisation in standard maternity care. Larger scale studies are required to verify these observations.

Patient safety events experienced by culturally and linguistically diverse ethnic minority patients: A systematic review

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¹ University of New South Wales

² University of Sydney

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⁴ Hunter New England Library

Objectives

To examine to establish the evidence base regarding the nature and frequency of safety events arising amongst culturally and linguistically diverse (CALD) healthcare consumers and how CALD populations are conceptualised across international literature.

Methods

A systematic review of the three electronic databases (Medline, PubMed, PsychInfo) between January 2000-November 2018 was conducted. Following title and abstract screening, two authors reviewed full texts against eligibility criteria. Relevant data were extracted and subject to a narrative synthesis.

Lessons Learned

Thirty-three studies were eligible for inclusion into the review. Our initial findings identified common safety events reported in the context of CALD consumers were medication and communication errors. Language barriers were predominantly focused on, with little research exploring wider factors contributing to care experiences and safety events. Very few papers explored the influence of culture and ethnicity in relation to safety events. Strategies to reduce the potential for preventable healthcare harm were discussed in a small number of papers, with recommendations at system level including mandatory integration of translation services.

Implications

Those from CALD backgrounds are vulnerable to a number of safety threats in their healthcare. In order to improve patient safety for CALD populations, enhanced knowledge of the influence of variables beyond language on safety and an expansion of the safety event studied beyond drug events are critical. Use of co-design may be valuable to enable nuanced understanding of particular populations and contextual needs in order to develop relevant strategies to reduce preventable patient harm.

Funding statement: This research was funded by an NHMRC Project Grant (1049703) obtained by CI Walton and CI Manias and administered by the University of Sydney.

Using Video Reflexive Ethnography (VRE) to Improve Communication about the HPV Vaccine with Somali Immigrant Patients in Primary Care in Minnesota

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¹University of Minnesota

²Smiley's Family Medicine Clinic

Objective: East African women have one of the highest rates of cervical cancer in the world. Despite this, HPV vaccination rates among Somali immigrant patients in primary care in Minnesota are as low as 10%. Our objective was to better understand the communication that occurs between clinic staff and Somali patients in discussing the HPV vaccine, and identify opportunities to improve communication.

Methods: The VRE method entailed conducting observations of clinic interactions, engagement of clinic staff and video recording of patient-staff interactions around the HPV vaccination. Three weeks of observational data was collected and eight patient-provider videos were recorded. The staff (12 medical assistants) and researchers undertook a participatory analysis of the video clips, identifying areas of best practice and potential opportunities to improve communication.

Lessons Learned: Clinic staff practiced consistent standard work, regardless of the different types of patient need. Staff were able to draw on insights from the participatory analysis to develop new, culturally tailored information to assist them with addressing the specific concerns of Somali patients in relation to the HPV vaccine, more effectively. This tailored patient information was successfully piloted, resulting in an increase in HPV vaccination initiation from 10% to 23%.

Implications: Engaging staff using a VRE methodology can help to identify innovations from within the clinic. The resulting innovations were quickly adopted by staff, due to their engagement in identifying opportunities. The process allowed culturally tailored patient information that made a positive impact on a serious health disparity in the Somali immigrant patient population.

Evaluating the impact of introducing nurse-supported consultations on access to rheumatology care in British Columbia, Canada

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Objective

To evaluate the impact of the introduction of a fee code incentive (G31060) in 2011 to promote multidisciplinary care of people with complex rheumatic diseases in British Columbia (BC), Canada, on access to care.

Methods

A cohort of all people with any musculoskeletal disease in BC (2009-2016) was assembled using linked administrative data. Rheumatologists were classified as 'intervention' if they ever billed the code G31060, or 'control' if they never billed the code, in the primary analysis. Access was defined as unique patient visits. The impact of the introduction of the fee code was explored using comparative interrupted time series. The impact of the frequency of use of the fee code was explored in sensitivity analyses - at least: i) annually; ii) 30 times per month.

Lessons Learned

Using the definition of 'intervention' in the primary analysis, the introduction of the multidisciplinary fee code did not have a significant impact on the level ($p=0.683$) or trend ($p=0.231$) of unique patient visits. However, more intensive use of the fee code there was associated significant increases in patients seen per month attributable to the introduction of G31060; i) annual: 15 (95% CI 2, 29; $p=0.034$), ii) 30 times per month: 13 (95% CI 1, 25; $p=0.031$).

Implications

Introducing a fee code to support multidisciplinary care of patients with rheumatic diseases improved access to care for patients. Supporting multidisciplinary care may free up time for rheumatologists to see additional patients. Potential benefits beyond substitution of effort also need to be explored.

An Australian randomized controlled trial of nurse home visiting (right@home): child and maternal outcomes at child age 4 years

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¹Centre for Community Child Health, Murdoch Children's Research Institute, ²Population Health, Murdoch Children's Research Institute, ³Clinical Epidemiology and Biostatistics Unit, Murdoch Children's Research Institute, ⁴School of Health and Social Development, Deakin University, ⁵Ingham Institute, Western Sydney University ⁶Australian Research Alliance for Children & Youth

Objective

To evaluate the impact of right@home (the largest Australian multi-site RCT of nurse home visiting [NHV]) at child age 4 years on child health, learning and language, and maternal parenting and health.

Methods

Participants: 722 pregnant women experiencing adversity, recruited from antenatal clinics at 10 hospitals across Victoria and Tasmania in 2013-14. Intervention: 25 scheduled, flexibly-structured nurse home visits until child aged 2 years, focusing on parenting and the home learning environment, embedded in the existing universal health service. Outcome measures at 4 years: parent-reported or direct assessment of child quality of life (QoL), mental and physical health, language, emergent literacy, and executive functioning; and maternal parenting practices, mental health and QoL. Outcomes were compared using linear/logistic regression models adjusted for stratification factors, nurse clustering and baseline variables with multiple imputation (intention-to-treat).

Lessons Learned

Of 722 women randomized (363 intervention, 359 control), 459 (64%) participated at 4 years. Intervention mothers reported improved mental health (depression: adjusted odds ratio [OR]=1.64, 95% confidence interval [CI]=0.94 to 2.86; anxiety: OR=1.11, 95% CI=0.75 to 1.66; stress: OR=1.73, 95% CI=1.06 to 2.83) and wellbeing (adjusted mean difference=2.83, 95% CI=-0.14 to 5.80). Small improvements were observed across a range of outcomes although no statistically significant impact was shown for the early child development outcomes.

Implications

The evidence of sustained benefit to maternal wellbeing as children turn 4 years has significant implications for equitable service delivery investment, especially in Australia. Like other NHV programs, ongoing follow-up will demonstrate whether benefits to children's development emerge over time.

Understanding the characteristics of young people in Victorian hospitals who are admitted from, or discharged to, residential aged care

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²Summer Foundation

³South Western Sydney Local Health District

Objective

To identify the demographic or clinical characteristics that may contribute to a younger person's use of residential aged care (RAC) and whether they utilise the hospital system differently to those living in the community.

Methods

An exploratory study of de-identified routinely collected Victorian hospital administrative data (July 2014-June 2017). Three clinical cohorts, identified from the literature as commonly living in RAC (Stroke, Traumatic Brain Injury [TBI] and Multiple Sclerosis [MS]), were used to compare characteristics and hospital utilisation of those living in the community to those in RAC. A two-step modelling approach was undertaken to identify the demographic and clinical characteristics that may predict a young persons' use of RAC.

Lessons Learned

Approximately 2% of patients admitted to hospital with a primary diagnosis of MS, stroke, or TBI used RAC during the observation period. For all three clinical cohorts, public patients, aged 55-64, with one or more comorbidities, and who had a diagnosis of paralysis following their index admission were more likely to use RAC during the observation period when compared to those living in the community. Use of RAC following stroke and TBI was associated with a longer total hospital length of stay during the observation period.

Implications

RAC is not the best place for young people with complex medical conditions, who may be particularly vulnerable to poor quality of life because they have poorer health from the start. This study identified potential predictors of use of RAC which could be used to inform points for early intervention.

Evaluating *Outcomes Based Care for Vulnerable Older People*: Challenges and lessons learned from a complex program evaluation

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1. Centre for the Health Economy, Macquarie University

2. Central Coast Local Health District

Objectives

In 2017, the NSW Central Coast Local Hospital District (CCLHD) introduced the *Outcomes Based Care* program to keep vulnerable older people healthy and at home. Two providers were commissioned to deliver their own form of care coordination for one year. Provider payments were based on their capacity to reduce unplanned public hospital bed days for an allocated patient cohort.

Our study objectives were to explore how provider and service characteristics, along with patient behaviours, and mediators and moderators of service delivery, may have impacted outcomes. These included hospital utilisation, health outcomes and patient experience with care coordination.

Methods

We undertook a process evaluation to explore mechanisms of impact, along with contextual factors that shape the process of how each mechanism generates outcomes. Information was collected through patient surveys, interviews with patients, providers and CCLHD, provider collected patient data, and program documentation provided by CCLHD.

Lessons Learned

The study results examine the risk stratification approach, the level of frailty of the patient cohort, the impact of the funding incentives, and mechanisms, barriers and enablers for care coordination between the CCLHD, community providers, hospitals and primary care. We provide key recommendations for future learning.

Implications

A community-led model of coordinated care needs to align with the complexity of multi-morbidity and the potential for measurable benefits.

'Not the right place': Non-traumatic dental presentations in NZ's emergency departments

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²University of Otago

Purpose

Cost is a key barrier to dental care among low-income New Zealand (NZ) adults. Anecdotal evidence indicates that low-income NZ adults regularly attend emergency departments (ED) for relief of dental-related pain and infection (non-traumatic dental presentations). Dental presentations place substantial burdens on EDs. To inform policy and practice, greater understanding is needed about such presentations. This study aimed to explore dental-related ED presentations and ED personnel perspectives on non-traumatic dental presentations in NZ.

Method

This study used mixed methods. Data on non-traumatic dental presentations to ED (2017 and 2018) at four NZ hospitals were collected and analysed descriptively. Using semi-structured interviews, the perspectives of ED personnel (n=16) from those hospitals on such presentations were collected and analysed thematically.

Lessons learned

Most non-traumatic dental presentations were made by Māori and Pasifika, those aged 19-39, and typically low-income adults. All participants said they could only provide palliative care, and that some presentations resulted in overnight admissions, intravenous antibiotics, and intensive care unit admissions. All participants said there were few definitive care pathways for patients presenting with non-traumatic dental problems, unlike almost all other presenting medical conditions. There is potential to improve ED staff training in diagnosis and anaesthetic administration, however, referral pathways into primary care was most sought by participants.

Implications

Accessible and affordable dental care pathways, for non-traumatic dental presentations in primary care, and policies to support such services, are urgently needed, in order to relieve people's pain and infection, reduce hospital admissions, and prescribing and health care costs.

Word count: 244

Opportunities for Studying a Community Population of Australian Seniors

Symposium Lead: Professor Jane Banaszak-Holl, Monash University School of Public Health and Preventive Medicine

Rationale for Symposium: This symposium proposes to describe data on the changing health conditions of Australian seniors available from the ASPREE-ALSOP cohort project that can potentially address a range of HSR questions on access to and use and quality of services for the aged.

Description:

We will present examples of health service research projects using one of the world's largest and most detailed cohorts of community-dwelling seniors---16,700 Australians relatively healthy and aged 70 and over when enrolled in the **AS**Pirin in **R**educing **E**vents in the **E**lderly (ASPREE) trial and who will be followed prospectively for 11 years overall. These data are unique in the breadth of demographic, socio-economic and health data collected, in the original trial and through the ALSOP substudy, which expanded collection of personal, medical and social data. These elements include socio-demographics, family and personal medical history including clinical episodes, lifestyle factors, quality of life, and medication intake. Participants were assessed routinely for cognitive and physical functioning and disability and underwent clinical measurements of body composition, grip strength, blood pressure, as well as all information on hospitalisations. ALSOP expanded the self-reported medical and social questions in years 1, 3 and 5 of participation. This symposium highlights existing clinical findings and research on hospitalisation within the ASPREE cohort and presents opportunities to collaborate with study investigators to address a range of HSR questions

The ASPREE Trial: Design, structure and major findings

John McNeil, Professor, School of Public Health and Preventive Medicine, Monash University

The ASPREE trial was established to determine whether a daily use of 100mg of enteric-coated aspirin prolongs healthy life span for older adults and collected information on a wide range of socio-economic and health conditions for participants. The principal outcome measure was disability-free survival, a composite derived from survival free of physical disability and dementia. The routine measurement of these parameters under clinical trial conditions in 19,100 Australians & US citizens provides unique insights into the trajectories of health and illness in the elderly. The study has made a major impact on preventive recommendations for millions of individuals worldwide. Previously, the practice of taking daily aspirin for prevention was reported for 10% of Australians and 40% of Americans aged 70 and over.

Hospitalisations in the ASPREE Cohort

Jane Banaszak-Holl, Professor, Monash University School of Public Health and Preventive Medicine

This study describes how ASPREE data are being used to examine trends and trajectories of hospitalisation for older adults. While past studies have analysed disease-specific episodes of care or used administrative health service data, this study compares relatively healthy individuals in the community who were hospitalised to those with and without risk factors who do not reach the hospital. The ASPREE cohort experienced over 28,000 hospitalisations with 16,000 attributable to study key endpoints. Rates of hospitalisation increased over time for the cohort, reflecting declining health among participants. Data on hospitalisation risks can then be linked to administrative data on hospitalisation separations.

Statistical Methods for Analysing Health Service Use in the ASPREE Community Cohort

Rory Wolfe, Professor, Monash University, School of Public Health and Preventive Medicine

This presentation proposes solutions to some of the analytical challenges present in the longitudinal ASPREE data including varying length of follow-up time per individual, loss to follow-up due to death, and a rich spread of measures of outcome available either in continuous time or on repeated discrete occasions. Survival analysis models for time to hospital admission require accommodation of multiple hospital separations (events) per person and hence allowance for within-person correlation of hospital admission times. To identify clusters of modifiable risk factors measured at baseline that differentiate individuals with frequent hospital admission during the study we propose latent class methods. Accommodation of evolving profiles of risk factors in analysis is possible but requires the use of special methods adapted according to the research question of interest

Identifying Community Living Elders At High Risk Of Preventable Hospitalisation

Danijela Gasevic, Senior Lecturer, Monash University School of Public Health and Preventive Medicine

We describe the use of ASPREE data in developing a patient-centred approach to the challenges of managing complex chronic conditions for avoidable hospitalisations. The ASPREE data are used to develop more accurate risk predictions for potentially avoidable hospitalisations among community-dwelling seniors, and for the association of hospitalisation with both multi-morbidity across a range of chronic conditions and a comprehensive set of health and social risk factors. Patients' voices will then be incorporated through social listening to identify their perspectives on when risks for hospitalisation should be addressed and how to target risk factors and translate research findings.

POSTERS

- P1 Using discrete choice experiment to create a priority list of chronic non-communicable diseases to guide their health research spending. Saeideh Babashahi, Otago University New Zealand
- P2 Prognostic Analysis of Cancer Patients with Mechanical Ventilation in Adult Intensive Care Units. Shu-Chen Hsing, Department of Respiratory Therapy, Chi-Mei Medical Center Taiwan
- P3 Screening for cytomegalovirus infection during pregnancy: A deterministic decision analysis. L.-Rachid Salmi, University of Bordeaux/INSERM/CHU France
- P4 Information-seeking behavior of medical residents: Policy to reduce hospital visits. Yu Hua Yan, Tainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Taiwan
- P5 The outcomes and factors associated with diabetes care: A diabetes shared care network in Taiwan. Yu Hua Yan, Tainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation) Taiwan
- P6 Compromised cancer-specific survival among under-insured Chinese patients with breast cancer: a prospective cohort study. Donghao Lu, Karolinska Institutet China
- P7 A comparison of the Cox model to the Fine-Gray model for survival analyses of re-fracture rates. Huei-Yang Chen, Agency for Clinical Innovation, NSW Australia
- P8 The Impact of Chemotherapy Induced Peripheral Neuropathy. Philip Haywood, CHERE Australia
- P9 How long and how much? Wait times and costs to private child mental health specialists. Kim Danziel, University of Melbourne, Australia
- P10 Positive responses to commitment questions increase uptake of emollient use to prevent skin tears: Evaluation of a targeted national intervention. Anna Moffat, University of South Australia, Australia
- P11 Geographical variation in hospital use at the end of life among New South Wales decedents. Hassan Assareh, Agency for Clinical Innovation Australia
- P12 Quantifying coronary artery disease complexity and comparing health outcomes among First Nations and non-First Nations angiography patients. Annette Schultz, College of Nursing, University of Manitoba Canada
- P13 Power to Quit 2: The experience of participating in a smoking cessation RCT for smokers experiencing homelessness, who also use alcohol. Rebekah Pratt, University of Minnesota United States
- P14 Chart Reviews: Situating Indigeneity within a research context. Moneca Sinclair, College of Nursing, University of Manitoba Canada
- P15 Process improvement and acute ischemic stroke thrombolytic drug administration safety. Yu-Hsia Wang, Nurse Department Taiwan
- P16 Exploring The Views of First-Visit Outpatients on Hospital Service Quality by Customer Satisfaction Survey. Yu-Hsia Wang, Tainan Municipal Hospital Nurse Department Taiwan
- P17 Reconciliation in Public Health Policy and Health Service Delivery - A Scoping Review. Stephanie Van Haute, University of Manitoba Canada
- P18 Identifying barriers and enablers to best practice in pediatric physical therapy: A retrospective clinical record review. Edward Gorgon, The University of Sydney Australia
- P19 Key documents relating to the future of pharmacy in New Zealand: Perceptions of recent BPharm graduates who have left or are considering leaving the profession. Trudi Aspden, School of Pharmacy, The University of Auckland New Zealand
- P20 Digital health patient education platform to improve health literacy and translate best-practice outcomes for post-discharge hip fracture care: a mixed methods study. Lalit Yadav, The University of Adelaide, Australia
- P21 Effect of Clinical Care Pathways on Health-Related Quality of Life and Physical Function Following Fragility Fracture: A Meta-Analysis. Jason Talevski, The University of Melbourne Australia
- P22 Intersectoral Collaboration for Aboriginal Youth Health Promotion in Northern British Columbia, Canada. Innocent Ndateba, University of British Columbia Australia

- P23 Assessing the utility of influenza forecasting models in health services decision making. Nicole White, QUT Australia
- P24 Improving patient experience and delivery of scalp cooling treatment in ambulatory cancer care settings in Australia. Jingjing He, The University of Sydney Australia
- P25 Capacity building for evidence-based local health and wellbeing planning. Geraldine Marsh, La Trobe University Australia
- P26 Clinical Pharmacist Facilitators in Primary Care: A descriptive study of their roles and services provided within general practices of Southern New Zealand. Sivamanoj Yadav Boyina, University of Otago New Zealand
- P27 Determining priorities for a Cerebral palsy quality of life instrument using happiness levels: a discrete choice experiment. Mina Bahrampour, Griffith University Australia
- P28 Which interventions for managing osteoarthritis do stakeholders want? Jason Chua, University of Otago New Zealand
- P29 Carer expectations: the role of health services in providing preventive care for nutrition and physical activity risks to people with a mental health condition. Jenny Bowman, University of Newcastle Australia
- P30 International migration of health professionals and global inequity in human resources for health: Failure of national and global health governance. Australia
- P31 The role of the Maternity Liaison Officer in provision of primary health care: A values-based service model. Carolyne Njue, University of Technology Sydney Australia
- P32 Factors of Physical Therapy Service Volume and Payment in Medicare in the United States. Mei Zhao, University of North Florida, United States
- P33 A Systems Thinking Approach for Universal Health Coverage (UHC), Part One: A Survey of Products, Problems and Protocols in Health Information Systems. Maria Cristina Bautista, Ateneo de Manila University Philippines
- P34 Prevalence of frailty in elderly inpatients using hospital administrative data in New South Wales. Hassan Assareh, NSW Agency for Clinical Innovation Australia
- P35 Taking Charge after Stroke: Cost-effectiveness analysis of a randomized controlled trial of a person-centered intervention to promote self-rehabilitation. Braden Te Ao, The University of Auckland New Zealand
- P36 Auckland Concussion services Cost-Effectiveness (ACCESS) Study: Proposed methods. Braden Te Ao, The University of Auckland New Zealand

Using discrete choice experiment (DCE) to create a priority list of chronic non-communicable diseases (NCDs) to guide their health research spending

Saeideh Babashahi
University of Otago

Objectives

A priority list of non-communicable diseases (NCDs) was developed to guide their health research spending in New Zealand (NZ).

Methods

A priority-setting framework was developed through a Discrete Choice Experiment (DCE) administered using 1000minds to elicit key stakeholders' preferences relating to NCDs in terms of their priority for health research funding in NZ. To support the robustness of the results, a subsample of 40 completed the survey twice, two weeks apart, to assess the DCE's test-retest reliability. In addition, cluster analysis was used to identify participants with similar patterns of preferences and the possible correlations between participants' preferences and their background characteristics.

Lessons Learned

The results revealed that mental, neurological and musculoskeletal diseases are listed in the first tiers of the priority list. This suggests that NZ, like many other countries, is undergoing a disability transition. This has been indicated by other studies that the proportion of the world's population who are experiencing nonfatal health loss is growing substantially. In addition, these top ranked NCDs are mainly associated with high health care costs showing a correlation between disability and high health care costs that has also been identified in previous studies. These findings demonstrate that it is pivotal to consider the multidimensional aspects – e.g. fatal, nonfatal and health care cost – of NCDs when prioritising them. The results of test-retest reliability showed that the priority-setting framework could generate reliable results over time. Moreover, the results of cluster analysis showed that participants' preferences are associated more with their idiosyncratic personal preferences than their demographic characteristics.

Implications

Ideally, the proposed prioritisation exercise will help policy-makers and researchers to implement systematic health research prioritisation frameworks, and effectively allocate health research spending across NCDs. The methodology and the priority-setting framework used in this study could be implemented elsewhere too.

Prognostic Analysis of Cancer Patients with Mechanical Ventilation in Adult Intensive Care Units

Shu-Chen Hsing¹ Kuei-Ling Tseng¹ Jia-Wei Lin¹

¹ Chi-Mei Medical Center

Objective

Acute respiratory failure in cancer patients may require intubation in the intensive care unit and use of ventilators to maintain oxygenation and ventilation. It is generally believed that the prognosis of cancer patients is poor and the use of ventilators is long. The main purpose of this study is to investigate the prognostic analysis of cancer patients using ventilators.

Methods

This study was retrospectively collected from January 2015 to December 2015 for cancer and non-cancer patients, in adult intensive care units and using ventilator. Record gender, age, number of hours of ventilators, reasons for using the ventilators, oxygen concentration, and survival analysis. Statistical methods were performed using SPSS for windows 17.0 (AN IBM Company) to analyze patient basic data and to compare differences between cancer and non-cancer ICU ventilators using independent t test.

Lessons Learned

A total of 2104 patients were collected in this study. There were no statistical differences in age, APACHE II score, and COMA scale compared with cancer and non-cancer patients, but the proportion of males was 307 (72.6%) vs 1038 (61.7%). Significant differences ($P < 0.001$), ventilator used hours median (IRQ: Q3-Q1) cancer and non-cancer patients 88.2 vs.72.0 ($P < 0.001$), cancer patients TISS Score 26.9 ± 7.0 , non-cancer patients 28.3 ± 8.9 significant difference ($P < 0.001$), in the hospitalization results, cancer patients vs non-cancer patients survival rate 357 (84.4%) vs 1312 (78.0%) were significantly different ($P = 0.005$).

Implications

Cancer patients use ventilators which have longer duration of use, lower TISS scores and lower mortality rates.

Screening for cytomegalovirus infection during pregnancy: A deterministic decision analysis

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Objective

Cytomegalovirus infection is the most frequent viral congenital infection and can cause deafness. Some professionals propose screening, although organisations, notably in New-Zealand and Australia, do not recommend screening. We summarize a deterministic decision analysis comparing the current no-screening situation to screening during pregnancy.

Methods

A Working Group met to formulate the problem, develop the decision model, and review WHO screening criteria and the evidence. We simulated the one-year natural history of cytomegalovirus infection in a cohort of 800 000 pregnant women estimated from the number of live births in France; data were extracted from systematic reviews, representative studies, prospective or historical cohorts or randomized trials. The screening strategy would consist of systematically proposing tests, during the first trimester, with possible repeated tests as needed, to all pregnant women.

Lessons learned

Relevant data were scarce and available treatments might be harmful. We estimated that 4 352 maternal primary infection would result in 1 741 foetal infestations and an unknown number of maternal reinfections would result in 1 699 foetal infestations. There would be 788 cytomegalovirus-related consequences, including 316 foetal deaths or terminations of pregnancy, and 424 moderate and 48 severe sequelae. Screening would result in a 1.66-fold increase (min: 1.13; max: 2.16) of poor outcomes, mostly related to a 2.93-fold increase (min: 1.9; max: 4.38) in deaths and terminations of pregnancy, not compensated by the decrease in severe symptomatic newborns, including those developing severe sequelae (relative risk: 0.83).

Implications

Screening for cytomegalovirus infection during pregnancy should not be recommended.

Information-seeking behavior of medical residents: Policy to reduce hospital visits

Yu-Hua, Yan

Tainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation)

Objectives

The health competent authority in Taiwan initiated the allowance reduction of the outpatient visits at regional hospitals and higher hierarchical hospitals from 2018. Starting from 2018, the allowance of outpatient visits at the regional hospital and medical centers will be reduced by 2%, followed by a total of 10% reduction in 5 years. This study intends to investigate the impact of the hierarchical medical system in national health insurance on the resident's medical seeking behavior in Taiwan.

Methods

This research adopts a cross-sectional study and data was collected between August and December, 2018 from subjects, this research collected 1,340 copies of valid samples.

Lessons Learned

For the impact on healthcare seeking behavior, the age group of 40-49 ($p < 0.1$), subjects with educational background of junior high school ($p < 0.05$), those who were not aware of the policy ($p < 0.001$), and, and the awareness towards hierarchical medical system and the policy to reduce outpatient visits to large hospitals ($p < 0.001$) reached significant levels.

Implications

It is especially important to restrict freedom of healthcare seeking for the implementation of the hierarchical medical system. this study suggests the competent authority of health administration work more on policy promotion to let the public become aware of and understand the hierarchical medical system to resolve the issue of upgrading healthcare seeking.

The outcomes and factors associated with diabetes care: A diabetes shared care network in Taiwan

Yu-Hua, Yan

Tainan Municipal Hospital (Managed by Show Chwan Medical Care Corporation)

Objectives

A diabetes shared care network can provide accessible, continuous, and comprehensive medical care to patients with diabetes to prevent and/or delay the occurrence of diabetes complications. The aim of this study was to assess 3-year outcomes and factors associated with those outcomes in diabetic patients who joined the diabetes shared-care program in Taiwan.

Methods

This is a retrospective study. This study was Diabetes with nationwide data for the year 2018 from the national health insurance medical care quality information public network in Taiwan. The remained cases were 464,374 after some selection criteria and the four groups in the diabetes shared care network (Clinic, Community hospital, Regional hospital, Medical center).

Lessons Learned

Availability of diabetes shared care network in Clinic and hospital accreditation level, Of diabetes shared care network participants, 464,374 effective samples were acquired 27.4, 38.5, 41.2 and 47.2% were fundus examination ($p<0.001$); 48.3, 55.9, 52.7 and 61.2% were Urine Protein ($p<0.001$); 81.8, 83.7, 77.1 and 80.7% were Fasting lipid profile ($p<0.001$); 48.3, 55.9, 52.7 and 61.2% were Glycated hemoglobin ($p<0.001$); 27.7, 43.9, 51.5 and 41.0% were Participation rate by diabetes shared care network ($p<0.001$).

Implications

The diabetes shared care program demonstrates measurable benefits of HbA1c control. A diabetes shared care program is truly beneficial and feasible and should be proactively promoted in the future to provide comprehensive care.

Compromised cancer-specific survival among under-insured Chinese patients with breast cancer: a prospective cohort study

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* Equal contribution to the work.

Objectives

Little is known about how health insurance policies, particularly in developing countries, may influence breast cancer prognosis. We aimed to examine the association between individual health insurance plans and breast cancer-specific mortality among patients with invasive breast cancer in China.

Methods

We included 7,436 women diagnosed with invasive breast cancer during 2009-2016 at West China Hospital. The health insurance plan of each patient was classified as either urban or rural schemes and was further categorized as covering reimbursements below or above the median. Using Cox proportional hazards models, we calculated hazard ratios (HRs) for cancer-specific mortality, contrasting rates among patients with a rural insurance scheme or low reimbursement rate to that of those with an urban insurance scheme or high reimbursement rate, respectively.

Lessons Learned

During the median follow-up of 3.1 years, 326 patients died of breast cancer. Compared with patients covered by urban insurance schemes, patients covered by rural insurance schemes had a 28% increased cancer-specific mortality (95% CI 0%-64%) after adjusting for demographics, tumor characteristics, and treatment modes. Reimbursement rate below the median was associated with a 43% increased rate of cancer-specific mortality (95% CI 12%-83%). Every 10% increase in the reimbursement rate was associated with a 7% (95% CI 2%-12%) reduction in cancer-specific mortality risk, particularly in patients covered by rural insurance schemes (25%, 95% CI 9%-39%).

Implications

Our findings suggest that under-insured patients with breast cancer in China face increased breast cancer-specific mortality. Higher reimbursement rates may be key to reduce such health disparities.

A comparison of the Cox model to the Fine-Gray model for survival analyses of re-fracture rates

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Background: Compared with the Kaplan-Meier and Cox model, the Fine-Gray competing risk model was developed to take competing risks into account, which provides a better estimation for the risk of main outcome of interest when one or more competing risks presented. To date, it remains underused. This study aims to use a case study to illustrate why and how the Fine-Gray model should be used and interpreted, especially when a competing risk is present.

Methods: Using a cohort of patients who presented to NSW hospital for a non-trauma related fracture between 2013 and 2017, the cumulative incidence and rate of re-fracture was estimated by the Kaplan-Meier and the Cox model, and by the Fine-Gray model when deaths present as competing events.

Results: The cumulative incidence of re-fracture at day 1825 (five years) was 20.7 % when using the Kaplan-Meier model and was 17.7% when using Fine-Gray model. The estimations of cumulative incidence or rate of re-fracture were consistently higher by traditional survival analyses (Kaplan-Meier or Cox) compared with Fine-Gray model. For patients aged 90 years and older, the re-fracture incidence at year 5 were estimated to be 66% versus 28% whereas patients with a history of osteoporosis were 44% versus 31%. Similarly, compared with patient without osteoporosis history, the estimated re-fracture rate for those with osteoporosis were 9.2 times higher by the Cox model but only 2.6 times higher by the Fine-Gray model.

Conclusion: The Fine-Gray model more accurately estimates the cumulative incidence of re-fracture and the effect of covariates on the hazard rate than the Kaplan-Meier and Cox models in the presence of a competing risk. This accuracy improves the larger the rate of a competing event.

What is the impact of chemotherapy induced peripheral neuropathy for individuals and the community?

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¹University of Technology Sydney, ²UNSW Sydney, ³University of Sydney

Objectives

Nerve damage (chemotherapy induced peripheral neuropathy [CIPN]) is a major side effect following chemotherapy treatment that impacts on quality of life. The impact of CIPN for patients and the community has historically been underestimated. It is important to improve information to understand and alleviate the impact of CIPN.

Methods

A cross-sectional and longitudinal data collection was undertaken of 409 patients who were exposed to known neuropathy inducing chemotherapy treatment. Information on CIPN, quality of life, presentism and absenteeism was collected and linked to administrative data on medical services and pharmaceutical scripts.

Lessons learnt

An increasing severity of peripheral neuropathy is associated with a substantial decrease in quality of life, especially in the mental subdomains. There was an increasing probability of missing work and an increased requirement to postpone work. There was also an impact on concentration and the pace of work for those who remained at work. There was also an increasing requirement for carers associated with increasing severity of CIPN. There was a lesser impact on non-employment activities. There was also an increase in medical use and costs over time relative to those without CIPN. The pharmaceutical costs decreased for those with CIPN relative to those without it.

Implications

It is important that those who develop CIPN and those who care for them are aware of the potential impact. Decision-makers in society should be aware of the full impact of CIPN, including on productivity, and ensure that cost-effective strategies are introduced to avoid or mitigate the consequences.

How long and how much? Wait times and costs to private child mental health specialists.

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Objectives

We aimed to quantify the wait times and costs of an initial appointment with key private child mental health specialists (paediatricians, child psychiatrists, child psychologists) and to investigate whether these differed by metropolitan versus rural location or practice area socioeconomic status (SES).

Methods

A "secret shopper" study was performed between March to May 2019. Phone calls ($n = 327$) were made to the private practices of paediatricians, psychologists, and psychiatrists in 2 states of Australia. CL posed as the parent seeking treatment for her child. One of 2 vignettes were randomly selected:

- A. An 11-year-old girl with likely anxiety; and
- B. A boy in Grade 2 with likely attention deficit hyperactivity disorder

The wait times and out-of-pocket costs for an initial appointment with a specific specialist were requested.

Lessons learned

Over 40% of requested clinicians were unable to offer an appointment. The primary reasons were: not taking new referrals ($n = 56$, 38.9%); and do not treat young children ($n = 38$, 26.4%). The mean wait time was 58.3 days for paediatricians, 50.8 days for psychiatrists and 40.5 days for psychologists. The average out-of-pocket costs were \$122.30 AUD for paediatricians, \$184.84 for psychiatrists and \$82.33 for psychologists. Paediatrician and psychologist costs increased with an increasing SES gradient. Metropolitan psychologists charged higher fees than rural colleagues.

Implications

There is inequity for families seeking child mental health services in rural and low socioeconomic status regions. Increased funding and redistributing the mental health workforce to reflect population need is necessary.

Positive responses to commitment questions increase uptake of emollient use to prevent skin tears: Evaluation of a targeted national intervention

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¹Quality Use of Medicines and Pharmacy Research Centre, University of South Australia

Objective

One way of increasing behavioural outcomes associated with health interventions is to ask participants questions about their commitment to performing a target behaviour. This study aimed to evaluate the impact of a commitment question on emollient dispensings for the prevention of skin tears as part of a targeted national intervention.

Method

The intervention targeted 56,000 persons aged 65 years or older who had risk factors for wound development. The intervention included educational materials that provided practical tips on how to look after your skin, including the application of an appropriate emollient to reduce the risk of skin tears. A self-report questionnaire asked recipients about their commitment to talking to their doctor about which emollient was appropriate for their use. The rate of claims for emollients was compared between persons who responded that they intended to speak to their doctor about emollients, and those who did not respond, or who responded that they did not intend to speak with their doctor.

Lessons learned

Positive responses to the commitment question were associated with an seven-fold increase in the rate of dispensing of emollients (Rate Ratio: 7.66, 95%Confidence Interval: 6.70 to 8.76) compared to persons who did not respond and those who did not commit to speaking with their doctor about an appropriate emollient to reduce the risk of skin tears.

Implications

Commitment questions are effective in increasing behavioural outcomes when applied at the population level in large-scale national health interventions.

Geographical variation in hospital use at the end of life among New South Wales decedents

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² Western Sydney Local Health District

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Objectives

Hospital use increases in the last three months of life. We examined its association with where people live, its drivers and variation across a large health jurisdiction in New South Wales (NSW), Australia.

Methods

We studied number of emergency department (ED) presentations, days spent in hospital, and in-hospital death among decedents who were hospitalised within 30 days of death across 153 NSW Local Government Areas (LGAs) during 2010-2015. Bayesian modelling was employed to examine and account for contributing factors and areal variations.

Lessons Learned

NSW decedents had 1.6 ED presentations, spent 14 days in hospital, and three in four died in hospital. Over the six-year period, ED presentations increased by 13%, whereas days in hospital and in-hospital death noticeably decreased by 12% and 8%, respectively. Decedents' demographics and their health status were associated with hospital use; primary care and aged care supply had no or minimal influence, contrary to other areal factors. Only one-sixth of areal variation in ED presentations was explained by contributing factors. Areal variation in days in hospital and in-hospital death was largely explained by confounders. There was a 17% to 25% difference in hospital use by decedents across LGAs. Between 18% and 57% of patients' areas of residence had hospital use that differed from the average. There was a weak association between measures of hospital use within areas.

Implications

The observed disparity can inform targeted local efforts to strengthen use of community care services and reduce the burden of end of life care on hospitals.

Quantifying coronary artery disease complexity and comparing health outcomes among First Nations and non-First Nations angiography patients

Annette Schultz¹, Lindsey Dahl¹, Elizabeth McGibbon², Jarvis Brownlie¹, Catherine Cook¹, Basem Elbarouni³, Alan Katz⁴, Thang Nguyen³, Jo-Ann Sawatzky¹, Moneca Sinclair¹, Karen Thronson³, Randy Fransoo⁴

¹University of Manitoba, ²St. Francis Xavier University, ³St. Boniface General Hospital, ⁴Manitoba Centre for Health Policy

Objectives

To quantify and compare the extent of coronary artery disease among First Nations (FN) and non-FN patients undergoing angiography using SYNTAX scores (SXscore), and to determine if any differences in SXscore could explain health disparities between populations.

Methods

Patients who underwent index coronary angiography 2008-2012 in Manitoba, Canada were identified using administrative health data. Non-FN patients were matched to a random sample of FN patients (n = 277) on age, sex, area of residence, and index date. Median SXscores and distributions of patients in SXscore categories were compared between groups. The five-year all-cause mortality, cardiovascular mortality, all-cause hospitalizations, cardiovascular-related hospitalizations were compared between FN and non-FN patients using adjusted Cox proportional hazards models adjusting for socio-demographic variables, comorbidities, conventional cardiovascular risk factors, and SXscore.

Lessons Learned

The median SXscores and distributions of patients in SXscore categories were not significantly different between groups. FN patients had a higher risk of 5-year all-cause mortality, all-cause hospitalizations, AMI hospitalizations, and IHD hospitalizations compared to non-FN patients. While the risks for the all-cause outcomes remained significantly different between groups after adjustment, the disparities in cardiovascular-related outcomes were explained primarily by conventional risk factors.

Implications

At the time of index angiography, extent of coronary artery disease appears similar between FN and non-FN patients. With cardiovascular-related outcomes, cardiac risk factors appear to explain the disparities. Still, it is important to avoid the pitfalls of 'lifestyle drift' in which a focus on individual lifestyle factors takes away from considering more broad social determinants of health.

(249/250 words)

Power to Quit 2: The experience of participating in a smoking cessation RCT for smokers experiencing homelessness, who also use alcohol.

Authors

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Objective: Up to 80 percent of the adult homeless population in the US smoke cigarettes. Offering ways to engage in smoking cessation is one important strategy to mitigate the deleterious impact of homelessness on preventable mortality and morbidity for this population. This research sought to identify the experience of smokers experiencing homelessness (and also use alcohol) in participating in Power to Quit 2 (PTQ2), a smoking cessation randomized control trial.

Methods: Semi-structured interviews were conducted with 40 people enrolled in PTQ2. Interviews were audio recorded, and transcribed verbatim. A detailed thematic analysis based was conducted.

Lessons Learned: Participants faced a range of challenges to participation in this community based trial, including transportation. There were additional challenges of the intervention being based in the shelter, both in relation to privacy and the impact of the shelter as a pro-smoking environment. Most participants had a positive experience the CBT and MI based counselling, particularly appreciating the empathy and consideration they experienced from the study counsellors. Some participants resented participation in the counselling sessions. Participants, including those in the control arm, described the beneficial nature of completing regular surveys on their mental health and nicotine use.

Implications: Cessation programs are acceptable and beneficial for smokers experiencing homelessness, however the shelter environment poses unique challenges. Addressing cessation at the institutional level, including the pro-smoking norms in spaces around the shelter, could help support individual efforts to quit. Future research studies should consider the potential impact of frequent surveys of self-reported cigarette use.

Situating Indigeneity within a research context

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Objective – To disrupt the dominance of biomedical approaches in health research use of Two-Eyed Seeing and Ethical space, two concepts rooted in Canadian Indigenous teachings, are foundational in exploring the experiences of collecting data from medical charts.

Methods –A mixed methods guided this study that focused on honoring Indigenous people's experiences with their heart health. One data source was reviewing angiogram procedures in over 600 charts. In this poster presentation, the research assistant reflects on his experiences of reviewing the charts and reports numbers of behavioral compliance.

Lessons Learned – As an indigenous researcher, inherent in my role as chart reviewer/data collector, was a sense of dancing between two worlds. Reflecting on data collection offers a look at how norms are defined and otherness articulated or *unarticulated*. For instance behavioural compliance to the biomedical model uses charitable adjectives: kind, lovely, pleasant versus issues of compliance, language more clinical, less adjectives.

Implications – This study questions how chart review data constructs narratives when they are devoid of social context, which in turn defined norms by which people are *Othered*. As well, what does it mean for one to play a role in producing such knowledge? How do we nurture a sense of indigeneity within such structures?

Process improvement and acute ischemic stroke thrombolytic drug administration safety

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Objectives

This project is to investigate the potential problems that may emerge when nursing staff conduct assessment, communication, implementation and evaluation processes during the first 72 hours of care provision for stroke patients who receive thrombolytic therapy. Through careful examination, our goal is to propose appropriate precautions and countermeasures to address the problems for processes improvement, which could assist the acute stroke intervention team members to reach a consensus on the maintenance of patient safety and to further prevent major hazards.

Methods

The adverse events occurred in the previous thrombolytic drug administration processes are used for analyses. We focus on the investigation of human-related errors during the drug administration processes to locate, record, and analyze the failure incidents associated with the design and operation of the processes.

lessons learned

After the implementation of the project, the Risk Priority Index (RPI) reduces considerably by 70.28%, from the score of 552 to 164. In addition, the safe drug administration completion rate increases from 81.9% to 100%, and the teamwork climate scores of the department show a positive growth from 57.25 to 63.55.

Implications

The process improvement enables nurses to practice in accordance with the safe protection mechanism; to control and/or eliminate potential operational risks; to establish clinical practice standards; to carry out analysis; to discuss about specific case scenarios; to propagate the use of SBAR communication tool; to actually practice in self-reviewing; and to conduct associated education and training.

Exploring The Views Of First-Visit Outpatients On Hospital Service Quality By Customer Satisfaction Survey

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Objectives

First-visit patients represent a new source for a hospital which is an important indicator for the growth . The purpose of this research is to investigate the association between the level of service, first-visit patients' perceived satisfaction of provided services, and whether their needs are adequately addressed by these services in a regional hospital in southern Taiwan for future health care service quality improvement.

Methods

We adopted questionnaire on outpatient's satisfaction level provided by the Taiwan Healthcare Indicator Series as the research approach. The questionnaire was amended to meet the hospital's needs and clinical practice implementation requirements, including items such as background and medical service. Patients and families who first-visited our outpatient department were randomly selected as research subjects of the survey.

lessons learned

There is an overall first-visit outpatient satisfaction of 82.2%; The services that are ranked satisfied include the highest ranking "examination personnel service" (89.2%); Among the services that are ranked dissatisfied, waiting time is the least satisfied with " physician service waiting time" and "registration and/or payment waiting time" ranked(78.4%); Recommendations by family and friends, transportation convenience and location are the main considerations for customers' visits; 89.7% of first-visit customers express their willingness of re-visiting and recommendation.

Implications

The research outcomes indicate that not only to understand what a customer feels satisfied with is the part of importance; rather, to grasp what a customer dissatisfied with is more crucial in terms of management and marketing strategies development for the maintenance of hospital sustainability.

Reconciliation in Public Health Policy and Health Service Delivery - A Scoping Review

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Objectives

In this poster presentation, results of a scoping review that examined current efforts towards reconciliation in the modern Canadian context, as well as efforts that evidence Indigenous self-determination or decolonizing practices in the areas of health policy and programming are presented.

Methods

We followed Arsky and O'Malley's framework for scoping reviews (2005). Four data bases were searched along with grey literature. A two-step selection process followed a title review to identify eligible documents. Data extraction focused on characteristics of the study authors; types of publications; and characteristics of the policy, intervention or program. A mixed methods analysis includes descriptive trends and a narrative analysis, guided by the *Anishinaabe Medicine Wheel* to ensure a two-eyed seeing approach as employed which to discuss review findings.

Lessons Learned

A total of 26 articles were included in the review, and grey literature is in process (completion 08/19). The results map the breadth and scope of efforts undertaken in Canada to support reconciliation in today's health systems. By using the Medicine Wheel, we are able to discuss which doorways appear out of balance from an Indigenous perspective concerning these efforts towards reconciliation.

Implications

Findings show that cultural reclamation and continuity including land connection as integral to health. Self-determination of healthcare administration has been identified a necessary prerequisite for changes to health disparities faced by Indigenous people. Having holistic healthcare systems that acknowledges all aspects of the Medicine Wheel- body, mind, spirit and emotional wellbeing, could dramatically change the way that we define, fund and administer health services.

Identifying barriers and enablers to best practice in pediatric physical therapy: A retrospective clinical record review

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Objective

Best practice is underpinned by the best available scientific evidence that supports its safety, effectiveness and efficiency. In pediatric care, it is also well accepted that the primary focus of management should be on the child, their parent(s) and the extended family. This study examined whether physical therapy processes enable or hinder best practice for children in a student-led outpatient service.

Methods

This study involved a retrospective file review of clinical records of patients receiving physical therapy (n=237) from 2011-2015 in Manila, Philippines. Data on clinical diagnosis, interventions, parameters of episode of care, therapy goals, and outcome measures were extracted and coded by trained researchers using a standardized form.

Lessons Learned

Most patients (n=229, 97%) had developmental conditions. Active interventions were almost universally employed (n=236, 99%) and self-management plans appeared in majority of the records (n=161, 68%). The duration of the episode of care was variable (median=16 months, range=1-139). Almost all patients (n=230, 97%) commenced with weekly therapy sessions but the total number of sessions varied from 1-150 (median=15). Therapy goals were reported routinely (n=236, 99%). Objective measures were recorded in 209 of 237 (88%) records at baseline, but in only 136 (57%) at follow-up. There was no consistent time point for outcome assessment (range=<1-36 months).

Implications

Key elements of physical therapy service delivery were consistent with best practice, however, there were aspects of practice that could be streamlined and could include better involvement of the family in decision-making. These results will contribute in 'idea generation' for service redesign.

Key documents relating to the future of pharmacy in New Zealand: Perceptions of recent BPharm graduates who have left or are considering leaving the profession

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Objective

The New Zealand “Pharmacy Action Plan 2016 to 2020” seeks to address “the need to provide sustainable, high-quality pharmacist services”; and asks pharmacists to be “clear on the role they have to play in making its vision of the future into a reality”. However, concerns have been raised about younger pharmacists wanting to leave the profession. This work forms part of a larger study of pharmacists completing BPharm programs later than 2002 who have left or are considering leaving the profession. This section aimed to elicit perceptions of the Plan, and the complementary “Integrated Pharmacist Services in the Community” document.

Methods

An anonymous online survey was open December 2018 to February 2019. Recruitment occurred via: e-mail lists of universities and professional organisations, print and social media, and word-of-mouth. Free-text responses were thematically analysed using a general inductive approach.

Lessons Learned

The 340 analysable surveys received contained 94 comments about the documents. Overarching themes were: (1) Concern over their achievability, which included the lack of financial commitment detailed in them and the subsequent push-back from pharmacy owners; (2) Frustration, partly as they were insufficiently aspirational, at the lack of leadership for their implementation and at the slow implementation progress; and (3) Scepticism, of their benefits for pharmacists, and their ability to secure a future for the profession.

Implications

The pharmacy workforce is predominantly young, and appears to be seeking change and professional evolution. Policymakers should engage with early career pharmacists to chart a sustainable and disruptor-embracing future for pharmacy.

Digital health patient education platform to improve health literacy and translate best-practice outcomes for post-discharge hip fracture care: a mixed methods study

Introduction

Adequate health literacy skills are important for understanding disease condition, informed consent, surgical procedure and adhering to post-hospital discharge instructions. Older people with hip fractures often require long term care and a crucial aspect is the provision of quality health information to patients and their carers to support continuity of care. If patients are well informed about their health condition and caring needs, particularly post-hospital discharge into the community setting, this could help them to make good health choices and in return foster recovery to improve quality of life. Further, as internet and mobile access reach every household, the study intends to utilise this technology and build an educational platform where both patients and their providers of care can establish an efficient information exchange process.

Methods and analysis

This study aims to engage patients, their carers and healthcare providers using a mixed methods approach. Quantitative method will explore health literacy and ehealth literacy among older people with hip fractures admitted to the two public tertiary care hospitals in Adelaide. Whereas, qualitative method will enable an understanding of aspects of content and context required for the digital health platform to be developed in order to deliver quality health information. The study will use appropriate theoretical frameworks and constructs to guide the design and analysis of the study.

Ethics and dissemination

The study has been approved by the Human Research Ethics Committee of Central Adelaide Local Health Network and the University of Adelaide Human Research Ethics Committee. The scope of the study intends to ultimately empower patients and their carers to influence through self-management and demand coordinated services at the community level could prevent further falls, leading to fractures, and reduce acute hospital admissions and costs. Findings from the study will be published in suitable peer review journals and disseminated through workshops or conferences, involving all the stakeholders.

Strengths and limitations of this study

- The proposed study will use a mixed methods approach which will provide a unique perspective on our understanding of the entire hip fracture care pathway, through a combination of the distinct strengths of each methodology
- The study intends to utilise a combination of different and relevant theoretical frameworks to guide the design and analysis of study findings. This will enrich the collected data and interpretation of the study results, reflecting a practical scenario for development of the potential intervention
- Involvement of patients and carers is a key feature in the design of this study
- A quantitative survey with limited sample size and considering only two hospital settings could be a major limitation of the study as the study findings may not be generalisable

Effect of Clinical Care Pathways on Health-Related Quality of Life and Physical Function Following Fragility Fracture: A Meta-Analysis

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Objectives

To evaluate the effect of clinical care pathways (CCPs) on health-related quality of life (HRQoL) and physical function following fragility fracture of the hip, wrist, vertebrae or humerus.

Methods

We searched 4 online databases for published studies involving participants aged ≥ 50 years who sustained a fragility fracture; evaluated the effects of a CCP compared to usual care; and reported outcomes of HRQoL or physical function.

Lessons Learned

22 studies (17 randomized controlled trials, 5 non-randomized studies) were included comprising 5,842 participants. 21 studies included hip fracture patients, and one included wrist fracture patients. 82% of studies were assessed as high quality. Meta-analyses showed moderate improvements in the CCP group for HRQoL [standardized mean difference (SMD)=0.24; 95% CI, 0.12-0.35; n=10 studies] and physical function (SMD=0.21; 95% CI, 0.10-0.33; n=15 studies) compared with usual care. Inpatient CCPs that extended to the outpatient setting showed greater improvements in HRQoL and physical function compared to CCPs that were only inpatient or outpatient. Larger improvements in HRQoL and physical function were found for CCPs that included a care coordinator; geriatric assessment; rehabilitation; nutritional advice; discharge planning; or home modifications.

Implications

Meta-analysis by fracture type was not possible due to lack of non-hip fracture studies. Treatment with CCPs following hip fracture showed improvements in HRQoL and physical function compared with usual care. Further research is warranted to assess the combination of CCP components that provide the most beneficial results; and evaluate the effect of CCPs in patients with non-hip fractures.

Intersectoral Collaboration for Aboriginal Youth Health Promotion in Northern British Columbia, Canada

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Objective

In Canada, Aboriginal youth continue to experience health inequities given their increased vulnerability to multiple intersecting social determinants of health. This study explored how different sectors work together to increase health and well-being among Aboriginal youth living in northern British Columbia, Canada

Methods

A community-based participatory research approach was used. In-depth individual and group interviews were conducted among 17 key stakeholders. They worked in community organizations, school and government institutions, or were Elders. Semi-structured interviews and focus group discussions were audio-recorded and transcribed verbatim. Themes were drawn from the data.

Lessons learned

An intersectoral collaboration for Aboriginal youth health promotion is facilitated by building a strong trust relationship between stakeholders. Families and Elders are key community members for the success of any health promotion activities. Availability of supportive legal frameworks creates an environment that allows organizations to provide activities that promote the health of the youth. Educational, health, child and family, social welfare development sectors and First Nation community organizations provide a variety of services that enhance access to health, social and educational support services including empowerment programs that address unemployment issues. However, the lack of formal collaborative partnerships between sectors negatively affects these health promotion initiatives.

Implications

Successful intersectoral collaboration for Aboriginal youth health promotion requires a strong trust relationship between sectors and a First Nation's strength based approach which connects culture, land and community. An intersectoral collaborative framework with clear roles and responsibilities of stakeholders would strengthen efforts that address social determinants of Aboriginal youth health and promote their health status.

Assessing the utility of influenza forecasting models in health services decision making

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Seasonal influenza-like illness (ILI) places additional burden on health services each year. Forecasts of ILI incidence may assist with quantifying expected increases in health services demand attributable to ILI, and inform potential management strategies. ILI forecasting models based on 'non-traditional' modes of surveillance such as participatory surveillance surveys and social media data, have shown favourable performance in published studies, providing predictions up to 6 weeks in advance. However, evidence for the translation of these methods into practice is limited.

To address this gap, we conducted a scoping review to identify current models for ILI forecasting using non-traditional surveillance data. Identified models were assessed in terms of reported measures of predictive performance, forecasting horizon and data source(s) used. Using these findings, we developed a hypothetical model to evaluate the utility of ILI forecasting models to guide resource allocation in the Emergency Department during flu season.

Improving patient experience and delivery of scalp cooling treatment in ambulatory cancer care settings in Australia

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Objective

Chemotherapy-induced alopecia (CIA) is one of the most distressing side effects of cancer treatment. Across Australia, a number of cancer centres have implemented scalp cooling treatment to reduce CIA in cancer patients. Treatment users are predominately women with breast cancer. Limited evidence is available to inform health service providers as to how best this technology can be used to improve patient experience while not impacting the existing clinical workflow in cancer settings. This study aims to explore cancer patients' experience of receiving scalp cooling treatment to reduce CIA, and the impact of scalp cooling treatment on public and private ambulatory cancer care settings.

Methods

We used a multi-method evaluation design. Semi-structured interviews were conducted with breast cancer patients at two hospital sites in Australia (both public and private sectors). Observations of oncology ambulatory settings and brief interviews with nursing staff (clinical staff and nurse unit managers) were also undertaken to explore the impact of scalp cooling treatment on cancer settings.

Lessons Learned

The impact of scalp cooling treatment on breast cancer patients, chemotherapy scheduling, treatment time, workflow, and nursing care time, and other themes emerging from data analysis will be presented.

Implications

The findings from this study will lead to a better understanding of patients' experience during scalp cooling treatment and the introduction of a new technology in a busy clinical environment. The findings will inform policy makers and key stakeholders to implement scalp cooling treatment with a recognition of the potential impact on clinical workflow and patient experience.

Capacity building for evidence-based local health and wellbeing planning

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Objective

In Victoria, Australia, it is a legislative requirement that local councils prepare a Municipal Public Health and Wellbeing Plan (MPHW Plans) every 5 years. There are 79 councils in Victoria. The Victorian Health Promotion Foundation (VicHealth) provides a range of support to health promotion practitioners to implement evidence-informed, local level health promotion actions to address locally relevant health priorities.

VicHealth and La Trobe University are currently undertaking research to inform VicHealth's future work in providing support to local council health planners and other health promotion practitioners developing place-based health and wellbeing strategies.

Methods

During the second half of 2019, data will be collected using mixed methods including:

- A focus group with experienced local government planners
- Semi-structured interviews with representatives from local government, community health services, Primary Care Partnerships and Primary Health Networks
- An online survey directed to local level health promotion practitioners
- Identification of examples of existing health promotion activities delivered by local government or other providers at a local level and development of a select number of case studies for inclusion in VicHealth local action guides
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Lessons learned

This paper will describe the data, evidence, resources and support required by health planners to enable them develop and implement strategies that address issues of local community health inequity.

Implications

VicHealth will use the findings from the research to refine their approach to supporting evidence based health planning. Other organisations will be able to use the findings to support their capacity building for evidence-based health planning.

Clinical pharmacist facilitators in primary care: A descriptive study of their roles and services provided within general practices of Southern New Zealand.

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Objective: To investigate the different range of activities performed by clinical pharmacist facilitators (CPFs) in collaborative settings with general practices of Southern New Zealand.

Methods: The CPF performed services were collected from patient medical records retrospectively for the three year time period. Further, to determine the patients receiving these services, this study gathered the summary reports of clinical notes about the patients seen by CPF in general practice. The data was analysed to determine the development of CPF roles, their range of activities, and patients characteristics.

Lessons Learned: The CPF role was initiated with three pharmacists in three different locations across the region. In the initial days of pharmacist's integration there were fewer referrals, CPFs proactively conducted internal audits of complex patients and gave their recommendations to the general practitioners (GPs). Once the GPs became aware of the skills and value of the CPF, trust developed, and referrals were increased from other general practices. Within 18 months of service initiation, the number of CPFs were increased to eight. As a result of collaboration, 42% of referrals came from GP team. Overall, 2621 drug related problems were identified in 2195 patients. Dosage adjustment was the most common recommendation made by CPFs to the GPs. CPFs tended to work with older patients (86.5% of patients were above 65 years) and patients with polypharmacy (88% of patients having more than 5 medicines).

Implication: With effective collaboration, CPFs can play a key role in optimisation of therapy and in patient education on drug therapy.

Determining priorities for a Cerebral palsy quality of life instrument using happiness levels: a discrete choice experiment

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Introduction: Cerebral palsy is a lifelong disability that occurs due to a non-progressive defect or lesion in the developing brain, during pregnancy or shortly after birth. CP-6D is a descriptive system generated from CPQOL, which is quality of life (QOL) instrument for people with Cerebral palsy. CP-6D has six domain; acceptance; physical health; manual ability; communication; pain and sleep, and describes each domain in terms of five levels (very happy to very unhappy).

Discrete Choice Experiment (DCE) is a stated preference method that elicits persons preferences based on hypothetical choice sets. The purpose of this paper is to apply DCE to elicit people's preferences for CP-6D health attributes when scaling the attributes on happiness levels.

Methods: A Discrete Choice experiment was applied describing two hypothetical scenarios, random choice-sets of attributes and their levels, from the CP-6D. The DCEs were sent as an online survey to a sub sample of Australian general population asking them to choose their preferred health state among two described health states. A conditional logit was used to analyse the results.

Lessons learned: The results indicate that manual ability (being happy about using hands) is the most important domain when prioritizing health attributes using CP-6D. The other attributes, based on importance are sleep, acceptance, pain, communication, physical health.

Implications: Understanding the impact of health states on happiness is a novel approach to measuring and valuing health. For policy makers and healthcare decision makers it is important to prioritise interventions and services that matter most to patients.

Which interventions for managing osteoarthritis do stakeholders want?

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Objective

To prioritize interventions for knee osteoarthritis (OA) based on stakeholder preferences and intervention performance criteria.

Methods

Multi-criteria decision analysis among cross-sector New Zealanders. In a previous study of ours we identified 8 attributes of OA interventions used to choose OA interventions. Preference weights of these criteria, representing the criteria's relative importance, were obtained from a choice-based survey (N=178; 63% female; [mean age±SD] 54±13) completed by consumers (n=58), Māori health advocates (n=5), healthcare providers (n=79), policy-makers (n=24) and OA experts (n=12). Interventions from a recent OA clinical practice guideline were rated on the criteria, and their preference weights summed to produce a ranking of the interventions.

Lessons learned

Stakeholders preferred the following attributes, in order of decreasing importance: 'recommendation' (preference weight: 19.0%), 'quality of evidence' (17.6%), 'effectiveness' (15.0%), 'duration' (13.2%), 'risk of serious harm' (12.8%), 'risk of mild harm' (9.4%), 'cost' (6.6%) and 'accessibility' (6.3%). Of the 15 guideline-recommended interventions, 'land-based exercise' (intervention score=74.2%), 'topical NSAIDs' (76.7%), and 'total knee replacement' (74.3%) ranked 1st for early-, mid- and advanced-stage osteoarthritis, respectively. At any stage of osteoarthritis 'aquatic exercise' (range: 70.5%-70.5%), 'massage therapy' (68.9%-73.1%), 'duloxetine' (67.9%-72.1%) and 'walking cane' (64.7%-68.9%) ranked ≤6th; the difference between 1st and 6th ranked intervention scores was ≤7.8%. Core interventions 'weight management' and 'self-management and education' ranked 12th-14th (50.5%-56.0%).

Implications: The core intervention 'land-based exercise' has desirable attributes, whereas 'weight management' and 'education' are less preferred than many second-line, adjunct interventions. This may explain low uptake.

Carer expectations: the role of health services in providing preventive care for nutrition and physical activity risks to people with a mental health condition

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Objectives

To examine family carers' expectations of preventive care provision for nutrition and physical activity risk factors from health and community services for people with a mental health condition; and explore socio-demographic and attitudinal factors associated with expectations.

Methods

A cross sectional survey was undertaken with 144 family carers of adults with a mental health condition in one region in NSW, Australia. Items assessed carer expectations of care provision for health risk behaviours by a range of health and community services, and carer perceptions concerning the impact of these behaviours on mental well-being. Regression analyses explored associations of carer characteristics with care provision expectations.

Lessons Learned

A majority of carers expected health and community services to be providing preventive care for nutrition and physical activity risks to people with a mental health condition. Carers who perceived that reducing these risks would benefit the mental well-being of people with a mental health condition were more likely to express an expectation that preventive care would be provided.

Implications

Family carers are key stakeholders in the delivery of care to people with a mental health condition. Carers' expectations concerning the provision of preventive care around nutrition and physical activity risk behaviours within health and community service settings reinforces the need to provide care to redress the inequitable burden of potentially preventable chronic disease experienced by people with a mental health condition. Raising awareness of the link between physical health risk behaviours and mental well-being may further strengthen carer expectations of preventive care provision.

International migration of health professionals and global inequity in human resources for health: Failure of national and global health governance

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Objective

The human resource for health (HRH) situation especially in the global South has reached a point of severe crisis and unable to provide basic health services. One of the major factors contributing to this crisis is emigration of skilled health professionals. Research shows that international migration leads to internal migration: from rural to urban, public to private and from primary to specialist care. Inequitable distribution of HRH leads to inequity in access, utilisation and quality of health care services. This results in unequal impact on health outcomes and health status of the poor and marginalised.

Methods

Emigration of health professionals is failure of global social justice and questionable in terms of human rights. It represents failure of labour market to allocate and distribute the scarce human resources equitably and productively where they are most needed and produced. Unfortunately, HRH is so far absent from global health equity research agenda.

Lessons Learned

Overseas qualified doctors comprise 30% of the UK NHS; while in the US and Canada, IMGs account for 24% of all practicing physicians. In Australia 56% GPs and 47% specialists are born overseas while in NZ the proportion of IMGs in the workforce is 43%. These data are not cumulative.

Implications

The WHO has enacted a voluntary Global Code on Recruitment of Health Personnel in 2010. But it is mired with contested consensus, convoluted negotiations and consequential ethics. There is not a single country which has implemented the global code; and since the passage of the Code, the recruitment has in fact increased.

The role of the Maternity Liaison Officer in provision of primary health care: A values-based service model

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Background

A policy directive of the New South Wales government to ensure all ethnic groups within the community have appropriate and equitable access to services led to the introduction of the maternity liaison officers (MLO) program in the late 1990s. The role of the MLO is to work alongside health professionals to provide direct education, preventive, support and counselling services to refugee and migrant groups with particular attention to the needs of women.

Objectives

We examined how the role of MLOs has evolved and how it can be best shaped to address the changing needs of women from culturally and linguistically diverse (CALD) and refugee backgrounds, and thus contribute to improved maternity outcomes and satisfaction.

Methods

Using evidence from reviews and reports spanning the last 10 years, we provide an overview of the attributes of this hospital-based service model and share insights into how the different cadres of MLOs deliver care for mothers and babies and the impact of this model of care delivery.

Results

Maternity liaison officers have readily assumed the responsibility of maintaining current knowledge and building competency in improving the health and wellbeing of refugee and migrant women and newborns. They act as important bridge enabling vulnerable women to competently navigate their maternity journey- pregnancy and the care of newborn infants- in a culturally sensitive and appropriate way, in line with childbirth educators.

Conclusions

This service model offers an acceptable way to support the delivery of maternity care to women of culturally and linguistically diverse backgrounds (CALD) and those from refugee-backgrounds. MLOs assist women to navigate the primary health care services. Strengthening their role in promoting continuity of care can empower women to make meaning of their transition experiences. Investment in the rigorous evaluation of this service is needed to provide strong evidence to optimise service delivery and guide future decision making.

Key words: service models of care, quality care, vulnerable groups, refugee, migrant women, maternal and child health

Factors of physical therapy service volume and payment in Medicare in the United States

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Objective

The traditional Medicare fee-for-service (FFS) program covers physical therapy services under Part B. It is unclear what factors affect the service volume and payment of physical therapy services. This study aimed to document the geographic distribution of Physical therapists (PTs) and examine variables associated with service volume and Medicare payment.

Methods

This was a retrospective cross-sectional study. Medicare Provider Utilization and Payment Data was used to identify PTs who billed Medicare during 2014 and were located in 50 US states as well as the District of Columbia. The number of PTs serving Medicare per 10,000 beneficiaries and percent of licensed PTs serving beneficiaries at the state level were mapped to depict the geographic distribution of PTs. The top 10 services by total Medicare allowed amount were identified. Multivariate regressions were used to evaluate variables associated with the total number of services performed and total Medicare standardized payment amount per therapist.

Lessons Learned

In 2014, 40,833 PTs provided 88,641,716 units of services to Medicare FFS beneficiaries and received 2.4 billion dollars from Medicare. States with low PTs serving Medicare per 10,000 beneficiaries were likely to have a low percentage of licensed PTs serving beneficiaries. PT demographic, practice, and market related characteristics were associated with service volume and Medicare payment per therapist, after controlling for confounding variables.

Implications

There is substantial variation in the geographical distribution of PTs serving Medicare beneficiaries. PT's service volume and Medicare payment are affected by demographic, practice, and market characteristics.

A Systems Thinking Approach for Universal Health Coverage (UHC), Part One: A Survey of Products, Problems and Protocols in Health Information Systems

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Objectives

One of the first few low-to-middle income countries to commit to Universal Health Coverage (UHC), the Philippines has signed into law this year (2019) its very own aspirations to provide universal care for over a hundred million population. It moves beyond UHC's health financing thrust and stipulates a whole-of-system and whole-of-government approach that hinges on the adoption of health information systems with four components: enterprise resource planning, human resource information, electronic health records, and electronic prescription log. The social, political and technological demands to transition to such a complex system invite visualization or pictures that speak powerfully to decision makers; hence, a geographical information system forms part of our approach.

Methods

In this paper, we explore how five components can be integrated to benefit the service delivery networks that will be formed, based on existing health information system products and patents. Specifically, we present findings on implementation of electronic medical records and syndromic surveillance within the context of health information exchange.

Lessons Learned

We discuss the possible problems that may be faced in the adoption of a single health care information system in the country, and what protocols need to be set in place to protect the privacy of patients and medical practitioners, while allowing health managers and researchers to mine this big data for the common good.

Implications

The paper and presentation will be of interest to countries on the cusp of transforming their own health systems and for counties that face fragmentation, shortages and other dysfunctions.

Prevalence of frailty in elderly inpatients using hospital administrative data in New South Wales

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Objectives

Frailty is associated with higher hospital use and poorer outcomes among elderly people. We implemented a risk scoring tool on hospital administrative data to identify frail patients and their outcomes in New South Wales (NSW).

Methods

The Gilbert Hospital Frailty Risk Score (HFRS) method was implemented using patient diagnosis codes drawn from the NSW Hospital Performance Dataset (Ministry of Health). Inpatients aged 75 or older who had one or more emergency acute-care overnight admissions over a one-year period (April-March, 2016-17) were assessed for frailty level at latest admission—classified as low, intermediate or high-risk based on two years' retrospective data.

Lessons Learned

Of 489,800 acute-care overnight patients, 131,667 (26.9%) were aged 75 or older. Of these, 47,491 (36.1%) were classed intermediate and 41,680 (31.7%) classed high-risk. Intermediate/high-risk individuals were of greater mean age, more often female, and more often hospitalised in the two-year lookback period. Average length of stay at index was 7.8 days (intermediate) and 11.6 days (high-risk) compared with 4.3 days (low-risk group). 30-day mortality rates were 10.7% (intermediate) and 18.8% (high-risk) compared with 4% (low-risk group). Corresponding 1-year rates were 23.3% and 40.6% compared with 10.1%. Comparable frailty rates were seen in a similar cohort (April-March, 2013-14), with 36.6% intermediate and 28.9% high-risk.

Implications

Two thirds of NSW older inpatients (18% of all acute-care overnight patients) were identified as frail and had a longer length of stay and higher 30-day mortality rate. The screening and assessment of frailty on hospital admission could potentially support appropriateness of care and inform service planning.

TAKING CHARGE AFTER STROKE: COST-EFFECTIVENESS ANALYSIS OF A RANDOMISED CONTROLLED TRIAL OF A PERSON-CENTRED INTERVENTION TO PROMOTE SELF-REHABILITATION

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Objectives:

The Take Charge intervention – a brief 'talking therapy' approach to facilitate self-rehabilitation for people discharged to community living following stroke – improves independence and quality of life. We performed a cost-effectiveness analysis as part of the Taking Charge after Stroke (TaCAS) trial.

Methods:

TaCAS methods and main results are being presented separately at ESOC. 400 participants were randomly allocated either one or two Take Charge (TC) sessions or a control intervention. One TC session costs €60. Health utilities were derived from EuroQol 5D scores, 12 months after stroke. Direct and indirect costs of care for all participants between baseline (mean 45 days after stroke) and final follow-up 12 months after stroke were calculated from interview, hospital records and the New Zealand Ministry of Health.

Lessons learnt:

In the control group the mean 1 year cost of care was NZ\$13,768 (95%CI 7,256 – 15,409) and mean health utility score was 0.71 (95%CI 0.67 to 0.75) compared to the TC intervention combined group where mean 1 year cost was NZ\$9,916 (95%CI 6,454 - 10,123) and mean health utility score was 0.75 (95%CI 0.73 to 0.77). Mean cost saving per participant was NZ\$3,853. Number needed to treat to gain 1 QALY is 25. Cost per quality adjusted life year (QALY) gained is (-) NZ\$92,595. Take Charge remains dominant over a wide range of cost assumptions. Most of the cost saving came from reduced rates of institutional care and hospital readmission.

Implications:

The Take Charge intervention is likely cost-saving.

Auckland Concussion services Cost-Effectiveness (ACCESS) Study: Proposed methods

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Objectives:

This study aims to assess the relative cost effectiveness of concussion services for mild traumatic brain injury (TBI) aimed at reducing long-term consequences, improving quality of life and improved return to work.

Methods:

A prospective community-based sample will be used. Participants will be observed in one of two groups (i) Early Presentation (those receiving care on a concussion service within a minimum of 10-30 days from injury onset); (ii) Late Presentations (those receiving care on a concussion service after 30 days from injury onset). Assessments will be conducted face to face at baseline 3 and 12 months post initial assessment. Cost of health services, post-concussion symptoms, work productivity and quality of life of mild TBI sufferers. Healthcare resource use and unmet healthcare need will be measured and linked with long-term cost. Euroqol (EQ-5D-3L) questionnaire will be used to measure health-related quality of life and calculate quality-adjusted life years. The differences in the healthcare costs, unmet healthcare needs and outcomes, for the concussion service will be compared against time delays to receiving care

Lessons learnt/ Implications:

The economic burden for mild TBI in NZ is high, but significant cost savings and improvements in outcomes may be achieved by informing decision makers' resource allocation to support better healthcare. Cost savings to the District Health Boards & Accident Compensation Corporation (ACC) might result, by reducing the need for long-term rehabilitation. Further, the longer-term impact on policy, service delivery and development of new interventions will be substantial.