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Resilience, innovation and value through research.

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Disclaimer:

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FRIDAY 2 December

PLENARY SESSION 3: Value in Healthcare
Professor Stirling Bryan, Canada Patient-Oriented Learning Health Systems: Reflections on the drive to increase value in health care
Professor Steven McPhail (QUT/AusHSI), Academic Director of the Australian Centre for Health Services Innovation (AusHSI)
A/Prof Penny Reeves PhD, Associate Director, Health Research Economics: The Embedded Economist Project The embedded economist: Lessons learned & future directions for improving value within local health services

Concurrent Session 1	**Concurrent Session 2**	**Concurrent Session 3**	**Concurrent Session 4**	**Concurrent Session 5**	**Concurrent Session 6**
Symposium 09: Development of an epidemiological and Health Services research data platform using linked electronic health record data	Symposium 10: Invest in proven Indigenous-led solutions to improve perinatal health & wellbeing	Session 7C: Health service utilisation	Session 7D: Providing pharmacy services	Session 7E: Lived experience of consumers and health professionals	Session 7F: Value based healthcare

POSTER PRESENTATIONS

Wednesday 30 November	**Thursday 1 December**	Friday 2 December
Poster Display Themes: Workforce Telehealth Sustainability Research Methods Primary care Models of care Indigenous Health Mental Health	Poster Display Themes: Implementation Experience Data COVID Health literacy	Poster Display Themes: Cost Consumers Co-design Aged care Access Cancer

12th Health Services Research CONFERENCE

Resilience, innovation and value through research.

DAY ONE

WEDNESDAY 30 NOVEMBER

PLENARY SESSION 1

Pandemic Resilience: The UK experience (what the metrics failed to predict)

Professor Trish Greenhalgh
University of Oxford, UK

In October 2019, a month before the first case of what later became known as covid-19 was described, a US group published a 'league table' which ranked the health systems of 195 countries in terms of an index of pandemic preparedness. The top four were USA, UK, Netherlands and Australia. At the bottom of the league table were the countries with so-called fragile health systems. As it turned out, the allegedly best-prepared nations (USA and UK) had two of the highest death rates from covid-19 and also severe hits to their economies; some countries at the bottom of the table had very few deaths. This lecture looks at two things: why UK did so badly in the pandemic and why the 'pandemic preparedness' metrics got the prediction almost 180 degrees wrong. Core to the explanation is the difference between plans and protocols (which, typically, metrics measure) and motives and values (which, typically, they don't). I argue that policymakers need two things from academics—evidence from the hard sciences on the origins, epidemiology, assessment and management of covid-19 and evidence from the social sciences and humanities about why humans behave as they do, why they feel so strongly about some issues, and what public health measures are right and reasonable in a divided society.

Symposium 1: Indigenous health Doula Program, Canada

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Putting them on a Strong Spiritual Path: Indigenous Doulas Responding to the Needs of Indigenous Mothers and Communities

Dr. J Cidro[1], Ms C Doenmez[2], Ms S Sinclair[3], Ms A Nychuk[1], Ms L Wodtke[1], Ms A Hayward[1,3]

[1]University of Winnipeg, Winnipeg, Canada, [2]University of Minnesota, Minneapolis, United States, [3]University of Manitoba, Winnipeg, Canada

Introduction/background

Indigenous women in Canada face less desirable birth outcomes compared to other groups. Disparities in maternal wellness in Canada are intertwined with colonization which has created deeply rooted inequalities in socioeconomic status and health outcomes between Indigenous and non-Indigenous people. Indigenous doulas, who provide culturally appropriate support to Indigenous women during pregnancy, birth, and the post-partum period, are an effective intervention to address this disparity.

Population/setting

We interviewed representatives from five Indigenous doula collectives across Canada.

Method

Qualitative interviews were conducted with members of five Indigenous doula collectives across Canada in 2020. Interviews were transcribed and returned to participants for their approval. Approved transcripts were then coded by all members of the research team to ascertain the dominant themes emerging across the interviews.

Results/findings

Two prominent themes emerged in the interviews. The first theme is “Indigenous doulas responding to community needs.” Participants indicated that responding to community needs involves harm reduction and trauma-informed care, supporting cultural aspects of birthing and family, and helping clients navigate socioeconomic barriers. The second theme is “Indigenous doulas building connections with mothers.” Participants’ comments on providing care to mothers emphasize the importance of advocacy in healthcare systems, boosting their clients’ confidence and skills, and being the “right” doula for their clients. These two inter-related themes stem from Indigenous doulas’ efforts to counter dynamics in healthcare and social services that can be harmful to Indigenous families, while also integrating cultural teachings and practices.

Implications/key message

This presentation illustrates that Indigenous doulas respond to a wide range of issues that affect Indigenous women’s experiences of pregnancy, birth, and the postpartum period. Through building strong, trusting, and non-judgmental connections with mothers and responding to community needs, Indigenous doulas play a critical role in countering medical racism in hospital settings and advancing the resurgence of Indigenous birthing sovereignty.

Indigenous Doulas: Exploitative Work While Caring for Our Relatives?

Ms A Hayward[1,2], Ms L Wodtke[2], Ms C Doenmez[3], Ms S Sinclair[1], Ms A Nychuk[2], Dr. J Cidro[2]
[1]University of Manitoba, Winnipeg, Canada, [2]University Of Winnipeg, Winnipeg, Canada, [3]University of Minnesota, Minneapolis, United States

Introduction/background

The arrival of a new baby into an Indigenous family and community is an important signifier of the resiliency and persistence of Indigenous women as the backbone of community life. Doulas, or birth workers, have historically played an integral role as supports for pregnancy and birthing Indigenous women by providing emotional and cultural support and knowledge for delivery. The support that Indigenous doulas provide is highly relational and affective, but is also excluded from universal healthcare funding in Canada, which can leave them open to potential labour exploitation, especially as they face cultural responsibilities to support other Indigenous people who need them.

Population/setting

This paper explores the service delivery experiences of five Indigenous doula collectives in Canada.

Method

Utilizing qualitative conversational approaches, we interviewed representatives of five Indigenous doula collectives from the provinces of British Columbia, Manitoba, Ontario, Quebec, and Nova Scotia in Canada. Transcripts were coded using grounded theory.

Results/findings

Several themes emerged out of our larger analysis, including connections with mothers, responding to the community, professional development, sustainable funding models, and fair compensation. For the purposes of this presentation, the focus is on fair compensation with two main subthemes: the need for fair payment models and issues with non-payment.

Implications/key message

The conquest of colonization, with its embedded structures of patriarchy and capitalism, has resulted in exploitation of women, and especially Indigenous women and women of colour, who face multiple systemic barriers to fair compensation for work and to quality, culturally competent healthcare. It is essential to explore fair compensation models for Indigenous birth work within a regional and culturally-based framework. The affective costs for Indigenous doulas are high, especially due to the impacts of racism in the health care system, but so too is the potential positive impact of a well-compensated, culturally-grounded Indigenous doula program.

Negotiating and Troubleshooting Western Systems as Indigenous Doulas

K Kowalski[2], Dr J Cidro[2], A Hayward[2,3], A Nychuk[2]
[1]University Of Minnesota, Minneapolis, USA, [2]University of Winnipeg, Winnipeg, Canada , [3]University of Manitoba , Winnipeg, Canada

Introduction/background
In Canada, there has been a significant increase in the training of Indigenous doulas, who provide continuous, culturally appropriate support to Indigenous birthing people during pregnancy, birth, and the post-partum period. This support is critical to counter systemic barriers and issues that disproportionately impact Indigenous families.

Population/setting
This paper analyzes interviews conducted with members of five Indigenous doula collectives across Canada, from the provinces of British Columbia, Manitoba, Ontario, Quebec and Nova Scotia.

Method
Qualitative interviews were conducted with members of the five Indigenous doula collectives across Canada in 2020 as part of the project, "She Walks With Me: Supporting Urban Indigenous Expectant Mothers Through Culturally Based Doulas." Interview transcripts were approved by participants and subsequently coded by the entire research team to identify key themes.

Results/findings
This paper examines the main challenges Indigenous doulas describe confronting when working within western systems, focusing on how the doulas navigate and overcome these obstacles. Specifically, interview participants described tensions with the biomedical approach to reproductive health, and the crisis of Indigenous infant apprehension. In response to these challenges, Indigenous doulas are working to develop Indigenous-specific doula training curricula, engage in collective problem-solving, and advocate for the reformation of a grant program in order to fund more Indigenous doulas.

Implications/key message
The interviews analyzed in this paper indicate that both the biomedical model and the crisis of Indigenous infant removal renders Canadian hospitals unsafe and challenging spaces for many Indigenous birthing people and their families. By revitalizing Indigenous birthing knowledges and forms of care, Indigenous doulas are navigating these challenges and developing strategies to ensure the wellbeing of the people they serve and supporting a long-term vision of reclaiming birth. Ultimately, this paper contends that Indigenous doulas are creatively and concertedly working towards the decolonization of Canadian healthcare systems.

Relationship-Centred Professional Development for Indigenous Birth Support Workers

A Nychuk[1,3], A Hayward[2,3], L Wodtke[3], C Doenmez[3,4], S Sinclair[2], Dr. J Cidro[1,3]
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Background
Indigenous birth support has been proven to be an effective intervention for Indigenous parents as it facilitates the repatriation of traditional culture and identity through the perinatal process in Canada. Indigenous Birth Support Workers (IBSW) provide culturally appropriate care during pregnancy, birth, and post-partum. The integration of the IBSW nurtures the reclamation and resurgence of culture and identity while recuperating Indigenous peoples' sovereignty over their bodies, through a holistic care model, with includes aspects of physical, mental, emotional, and spiritual support.

Population/Settings
This paper describes the experiences of five IBSW collectives from across Canada who are providing services in different ways. This paper is part of a larger project, "She Walks with Me: Supporting Urban Indigenous Expectant Mothers Through Culturally Based Doulas," seeking to create a sustainable Urban Indigenous Birth Support Workers program in Winnipeg, Manitoba, Canada.

Method
This paper describes the experiences of five IBSW collectives from across Canada. These interviews were conducted in 2020 using a "conversational method." Post transcription the research team utilized a constant comparative method which is rooted in grounded theory to analyze each interview.

Results/findings
Through qualitative interviews participants described many gaps they have experienced in their birth support training specific to working with Indigenous parents, navigating conflict, and the incorporation of Indigenous teaching pedagogies. These themes all speak to the challenges that Indigenous Birth Support Work Collectives face in finding and providing training that is both recognized and relevant to Indigenous peoples.

Implications
Several obstacles were identified that IBSW have to contend with in order to provide birth support to their Indigenous relatives, sharing experiences and barriers both when receiving their initial training and in their continuing education. Further articulating that trainings that are geared towards serving Indigenous parents need to be rooted in community and adopt a relationship centered curriculum.

Symposium 2: Cutting edge methods for comparative effectiveness studies using Big Data in stroke

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Wrangling pharmaceutical claims data to measure medication adherence as an outcome after stroke

A/Prof Monique Kilkenny[1,2], Mr Lachlan Dalli[1], Dr Joosup Kim[1,2], Dr David Ung[3], Dr Muideen Olaiya[1], Prof Dominique Cadilhac[1,2], Prof Vijaya Sundararajan[4], Prof Amanda Thrift[1], A/Prof Nadine Andrew[3]

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Introduction

Suboptimal adherence to medications following stroke is associated with recurrent events, but may be improved by use of structured and individualised care plans. We aimed to (i) evaluate the effectiveness of Medicare-funded chronic disease management plans(CDMPs) on medication adherence after stroke/transient ischaemic attack(TIA), and (ii) compare two different methods of measuring medication adherence.

Methods

In the PRECISE study comprised survivors of stroke/TIA from Queensland and Victoria who were included in the Australian Stroke Clinical Registry (January 2012-June 2015) with data individually linked to Medicare, Pharmaceutical and hospital datasets. We included survivors who had ≥1 general practitioner visit during the exposure period (7-18 months post-stroke). The treatment strategy involved receipt/review of ≥1 CDMP during this period. Pharmaceutical data were used to estimate medication adherence during the outcome period (19-30 months post-stroke) using the proportion of days covered (PDC) method (adjustment for re-hospitalisations, stock-piling, pre-supply, death). We analysed PDC as a continuous variable using median regression, and as a binary variable using logistic regression (PDC ≥80% vs <80%). All models involved inverse probability treatment weights to control for measured confounding.

Results

Among 9,337 survivors of stroke/TIA (median age 70 years; 42% female), 45% received a CDMP during the exposure period. During the 1-year follow-up for outcome, the median PDC was 82%. In logistic regression, treatment with CDMPs was associated with being adherent (PDC ≥80%) to antihypertensive medications (odds ratio: 1.14; 95% CI: 1.05-1.25). Using median regression, treatment with CDMPs was associated with 3.8% greater adherence to antihypertensive medications relative to the median of untreated patients (coeff: 3.8; 95% CI: 0.8-6.8).

Implications

Treatment with CDMPs was associated with a small increase in medication adherence following stroke. Despite obtaining similar results when PDC was modelled as a continuous measure, the binary approach was preferred for ease of interpretation and comparison with other studies.

Quantitative analysis of the potential effects of misclassification bias in health services research: a case study of stroke care services

Dr M Olaiya[1], A/Prof M Kilkenny[1,2], Dr J Kim[1,2], Dr D Ung[1], Mr L Dalli[1], Prof D Cadilhac[1,2], Prof V Sundararajan[3], Prof A Thrift[1], A/Prof N Andrew[1]

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Introduction

Health services research using administrative data is used to inform changes in healthcare system and policy. Due to the imprecision of these data, there is a need to undertake bias analysis to ascertain the validity of findings. In PRECISE data linkage study, treatment with a chronic disease management plan (CDMP) at 7-18 months after a stroke or transient ischaemic attack (TIA), assessed based on Medicare claims data, improved survival. We evaluated the bias implications of potential misclassification of treatment with CDMP in administrative data.

Methods

Our cohort of 9,337 patients with stroke/TIA was derived from the Australian Stroke Clinical Registry (2012-2015) and linked to several administrative datasets, including Medicare and death data. We undertook probabilistic bias analyses of the effect (hazard ratio [HR]) of treatment with CDMPs on survival, under differential (misclassification differs between groups) and non-differential misclassification (misclassification similar between groups) of treatment. Monte-Carlo simulations were undertaken using hypothetical ranges for the distribution of the sensitivity and specificity for misclassification. When specifying differential misclassification, we set between-group correlations in sensitivity or specificity at 0.8. This process was repeated 1,000 times to obtain a simulated distribution of HRs corrected for systematic errors.

Results

Using standard methods, the covariate-unadjusted HR of the effect of CDMP was 0.93 (95% CI 0.75-1.15). When assessing plausible ranges of 0.75 to 1 for sensitivity/specificity, the HR was biased away from the null (corrected HR 0.79, 95% 0.11-0.92; 15% bias) for non-differential misclassification of treatment with CDMP. No bias was observed for differential misclassification (corrected HR 0.95, 95% CI 0.63-1.42).

Key message

We provide evidence that bias arising from misclassification of treatment (e.g. CDMP not being delivered in the way intended) could lead to underestimation of treatment effects. These findings demonstrate the importance of evaluating potential sources of bias in administrative data-based health services research.

Minimising measured confounding in real-world effectiveness studies using different propensity score adjustment methods: A case study for stroke

Mr Lachlan L. Dalli[1], A/Prof Monique F. Kilkenny[1,2], Dr David Ung[3], Dr Muideen Olaiya[1], Dr Joosup Kim[1,2], Prof Vijaya Sundararajan[4], Prof Amanda G. Thrift[1], Prof Dominique A. Cadilhac[1,2], A/Prof Nadine E. Andrew[3]

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Background

Observational data are commonly used to assess the effectiveness of interventions in the real-world setting. However, these real-world studies can suffer from biases due to non-random allocation of individuals to particular treatments. Using stroke as a case-study, we provide practical guidance on generating, evaluating, and applying propensity score methods to reduce measured confounding in real-world studies.

Method

The PRECISE project comprises person-level data from the Australian Stroke Clinical Registry (2012-2016; Queensland and Victoria) that are linked with various administrative databases. The exposure was the use of a Medicare-funded chronic disease management plan (CDMP) and the outcome was adherence to secondary prevention medications. We used a data-driven and evidence-informed process to select variables to include in our propensity score to minimise confounding from preferential treatment with CDMPs. The resulting propensity score was then evaluated using rigorous methods (e.g. kernel density plots and standardised differences). We also compared findings using different propensity score-adjustment methods, including matching, weighting, stratification, and direct adjustment as a covariate.

Results

Among 9,337 survivors of stroke or transient ischaemic attack (median age 70 years; 42% female), 45% received a CDMP. Prior to matching, there was considerable imbalance between those treated and untreated with CDMPs (i.e. standardised difference >10% for 18 covariates). Propensity scores were successfully estimated for each survivor based on their probability of receiving a CDMP. Transformation of the propensity score into stabilised inverse probability treatment weights removed all imbalance between treated and untreated groups for the measured covariates. Our findings were similar when the propensity score was applied using matching, stratification, or direct adjustment.

Implications

Correctly specified and implemented propensity score adjustments can reduce measured confounding and enhance the robustness of findings from real-world studies. Our practical guidance on generating and applying propensity scores can assist other health services researchers in undertaking these statistical methods.

Application of the target trial framework in a comparative effectiveness study of Chronic Disease Management Plans following stroke

A/prof Nadine Andrew[1], Dr Nadine Andrew[2,3], Dr David Ung[1], Mr Lachlan Dalli[2], Muideen Olaiya[2], Prof Dominique Cadilhac[2,3], Prof Vijaya Sundararajan[4], Prof Amanda Thrift[2], A/Prof Monique Kilkenny[2,3]

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Introduction

Randomised controlled trials are the gold standard for testing treatment efficacy, but are not always feasible. The advent of 'big data' has seen advancements in the causal analysis of observational data for comparative effectiveness research. One of these is the recent target-trial framework, an approach that minimises limitations apart from those due to non-randomisation. We aim to demonstrate the use of the target-trial framework to perform a comparative effectiveness study of the use of Medicare-funded Chronic Disease Management Plans (CDMPs) following stroke or Transient Ischaemic Attack (TIA).

Methods

The cohort was derived from the Australian Stroke Clinical Registry (January 2012-June 2015, Victoria and Queensland) and linked with Medicare, Pharmaceutical, National Death Index (NDI), aged care and hospital data for the PRECISE project. Consistent with target-trial methods, eligibility was restricted to registrants living in the community, alive and with ≥1 general practice visit during the exposure period (7-18 months post-stroke). The treatment strategy was receipt of ≥1 CDMP or CDMP review, during this period. Survival was determined for the outcome period (19-30 months post-stroke) using NDI data. Inverse probability treatment weights were used to control for measured confounding and applied to multivariable survival analysis.

Results

Among 9,337 eligible registrants (42% female, median age 70 years, 28% TIA), 45% received a CDMP. Excellent baseline balance was achieved between the treated and non-treated groups (35 variables). Receipt compared to non-receipt of a CDMP was associated with a significant 29% reduced hazard of death (adjusted Hazard Ratio (aHR): 0.71, 95% CI 0.58, 0.89, $p<0.001$) and a 32% non-significant reduction (aHR:0.68, 95%CI 0.44, 1.06, $p=0.088$) when restricted to first time CDMP users since stroke/TIA (n=4,458).

Implications

The target-trial framework provided a structured process for specifying our observational study design. This avoided common study-design flaws so that causal inferences could be drawn with increased confidence.

Utilising an Effective Framework for Data Management, Documentation and Transformation of Linked Healthcare, Registry and Claims Data in Stroke

Dr David Ung[1], Mr Lachlan Dalli[2], Dr Joosup Kim[2,3], Dr Muideen Olaiya[2], Associate Professor Monique Kilkenny[2,3], Professor Vijaya Sundararajan[4], Professor Amanda Thrift[2], Professor Dominque Cadilhac[2,3], Dr Nadine Andrew[1]
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Introduction

Data from clinical trials and registries are increasingly being linked with administrative healthcare data for observational research. The merged data enable the evaluation of a broad range of comprehensive health outcomes, including mortality, adverse events, disability, medication dispensing and healthcare utilisation. However, these 'real world' data are often complex, difficult to interpret and require extensive cleaning to be suitable for research. Using the PRECISE project as a case-study, we aim to describe a framework for merging, managing, and transforming multijurisdictional linked data for healthcare evaluation and outcomes research.

Methods

Person-level data from the Australian Stroke Clinical Registry (AuSCR; January 2012-June 2015; Victoria/Queensland) were individually linked with data from National Aged Care, state-held hospital admissions and emergency departments, and commonwealth-held Medicare Benefits Schedule (MBS), Pharmaceutical Benefits Scheme (PBS) and National Death Index.

Results

Personal identifiers from 28,775 AuSCR registrants were submitted for linkage to the relevant State and Commonwealth Data Linkage Units. We achieved an overall linkage rate of 95.3% (≈27,400 patients with stroke) between four national-level and four state-level databases (across two state jurisdictions). Individual linkage rates with the AuSCR were 96.9% (MBS), 97.6% (PBS), 98.5% (admission) and 96.4% (emergency). A comprehensive data management plan was established. Our documentation of data processes and transformations included: data flow diagrams and merging stages between datasets, identification of core analytic variables, harmonisation of six variables across datasets and imputation to maximise data completeness, and standardisation of variable names. A detailed central document, study data dictionary and coding repository (GitLab) were also established to support multiple users and collaborative works.

Key message

Our framework for managing administrative and clinical data have ensured consistency, quality, and ease of use for future analyses, and may benefit other researchers using linked health data.

Using Linked Data in an Economic Evaluation of Care Planning for Managing Stroke

Joosup Kim[1,2], Dominique Cadilhac[1,2], Monique Kilkenny[1,2], Lachlan Dalli[1], David Ung[3], Muideen Olaiya[1], Vijaya Sundararajan[4], Amanda Thrift[1], Nadine Andrew[3]

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Background

The Australian government spends approximately $1 billion annually to fund enhanced models of primary care, including chronic disease management plans (CDMPs). However, there is limited evidence of their effectiveness or cost-effectiveness. We aimed to describe costs obtained from administrative datasets that will be used in an economic evaluation of CDMPs in patients with stroke or transient ischaemic attack (TIA).

Method

For the PRECISE project, patients admitted with stroke or TIA registered in the Australian Stroke Clinical Registry (Queensland and Victoria, 2012-2016) had their data linked with government-held administrative databases (hospital, Medicare, and pharmaceutical data). Administrative databases provided patient-level costs, relating to Medicare claims and pharmaceutical claims between 7 and 18 months after stroke or TIA. Medicare data was used to determine use of a CDMP. Costs per person were described according to whether a CDMP (treated) was provided or not (untreated).

Results

Of the 9,337 people with stroke included for this analysis (median age 70 years; 42% female), 4,184 (45%) received a CDMP. Aggregated costs related to the top 10 reasons for hospital admissions were $2.2 million for the treated group and $1.7 million for the untreated group. Median costs per person related to Medicare claims were $1426 (IQR: 969, 2080) for the treated group and $658 (IQR: 346, 1131) for the untreated group. Median costs per person related to pharmaceutical claims were $774 (IQR: 356, 1398) for the treated group and $469 (IQR: 60, 1015) for the untreated group.

Implications

The patient-level costs described will be used in an economic evaluation of CDMPs in patients with stroke or TIA. Having patient-level costs will enable differences in costs between groups to be adjusted for any differences in patient characteristics and prior resource use between groups and facilitate reliable estimates of cost-effectiveness.

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A framework for the evaluation of geriatric outreach programs for acutely unwell older people residing in residential aged care facilities

Dr Luke Testa[1], Prof Jeffrey Braithwaite[1], A/Prof Rebecca Mitchell[1]
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Introduction/background

The Royal Commission into Aged Care Quality and Safety has recommended the Australian and State and Territory Governments should introduce local hospital network-led multidisciplinary outreach services. Existing theories and frameworks do not adequately consider the concepts pertinent to the evaluation of geriatric outreach programs for older people in residential aged care facilities (RACFs).
Population/setting: RACF residents aged ≥65 years who were reviewed by a geriatric outreach program in New South Wales.

Method

We adapted Donabedian's quality of care model, Andersen's modified health behaviour model and Geary and Schumacher's situation-specific theory of care transitions, creating a framework. We conducted 1) an integrative review and 2) a mixed methods evaluation using the framework. The evaluation involved a geriatric outreach program staffed by a geriatrician, an aged care community registrar and two Clinical Nurse Consultants who provide support to acutely unwell residents living within 43 RACFs.

Results/findings

The integrative review identified seven key initiatives to improve care via geriatric outreach to RACF residents: (1) coordination of care; (2) access to skilled care providers; (3) capability building of RACF staff; (4) risk stratification; (5) partnerships between RACFs and hospitals; (6) advance care planning; and (7) Comprehensive Geriatric Assessment. The mixed methods evaluation identified additional factors related to patients (i.e., cognitive impairment, end-of-life, and multiple comorbidities) and service (i.e., service design, service barriers, and adaptability and responsiveness of service) as being instrumental in having either a negative or positive impact on older people transitioning between RACFs and the hospital system. These additional findings have led to a revised model of geriatric outreach for acutely unwell RACF residents.

Implications/key message

A new, evidence-based theoretical framework of geriatric outreach for acutely unwell RACF residents will be presented. This framework can be used and adapted for future geriatric outreach program evaluations.

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Healthy ageing trends in Australia: integrating changing needs into health service planning

Dr Sabrina Lenzen[1], Professor Stephen Birch[1]
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Introduction
Not only since the Covid-19 pandemic but already in previous decades, have questions been raised about the long-term sustainability of publicly funded health care programmes around the world. Health care planning for the future seems more critical than ever, but despite increasing evidence of changes in population needs, most official health service planning models continue to rely on the assumption that age-specific needs for health care will remain constant in the future.

Method
In this paper, we discuss the advantage of dynamic needs-driven planning systems, compared to simple static planning models, and present a framework that integrates population needs into health service and workforce planning. We use data from the Household, Income and Labour Dynamics survey in Australia (HILDA) to explore trends in health needs over 20 years from 2001 to 2020 and estimate the effects of birth cohorts in explaining these trends in health problems after allowing for age-related differences in health. We incorporate estimated cohort effects into official government estimates from the Intergenerational Report to understand the impact on future health care capacity requirements.

Results or findings
We find that healthy ageing trends can be observed in particular for different birth cohorts who experience different patterns of exposure to social conditions, health care settings, and lifestyle risks, affecting them at different stages of their life. Applying our estimates to government statistics we find that the need for health care is lower when we allow for cohort effects.

Implications or key message
We conclude that it is important for planning models to incorporate dynamic changes in health over time to shift the focus of future planning from what was provided in the past to what will be needed in the future.

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The role of inter-organisational collaboration in the implementation of a population-based programme for the elderly in New Zealand: Study protocol

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Introduction

The New Zealand health system is facing increasing demand as a result of the ageing population. Falls are the most common and costly cause of injury in people 65 years of age and over. Integrated service delivery is needed to provide consistent and reliable outcomes for this condition. A partnership approach across the sector is critical as no single agency can achieve this. In 2016, the Accident Compensation Corporation, the Ministry of Health, the Health Quality & Safety Commission and local health systems initiated the Falls and Fracture Prevention Programme (FFPP), a population-based approach to accelerate improvement in outcomes from falls. The study aims to understand the role of organisational and inter-organisational features in implementing the FFPP and how does the quality of inter-organisational collaboration affect the implementation of FFPP.

Method

A multiple explanatory case study design will be used. Three districts have been selected based on (1) the size of the district and (2) organisational arrangement. The Context and Capability for Integrated Care (CCIC) framework has been employed to capture and compare seventeen organisational and inter-organisational factors within and across selected districts. Data will be collected through 45 semi-structured interview, available documents and official statics.

Results

Preliminary findings indicate that FFPPs have been configured and implemented differently in each district, which differs in terms of basic structure, key processes and people and values.

Data analysis is ongoing, and it is planned to look further at variations and similarities in organisational and inter-organisational characteristics and compare implementation and outcomes of FFPP across three districts.

Implications

This research will provide evidence of the relationship between organisational and inter-organisational context and implementation and outcomes of FFPP in New Zealand and potential applicability to other programmes that require inter-organisational collaboration.

Measuring quality in aged care – issues and solutions

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Background

The Australian government has recently accepted most of the 148 recommendations of the Royal Commission into Aged Care Quality and Safety. This includes the development of a new star rating system. The Centers for Medicare & Medicaid Services (CMS) have published five star ratings on homes since 2008. It is currently unclear how relevant this system is to the proposed Australian five star rating.

The aim of this paper is to propose methods for a five star index that is suitable for use in the Australian context.

Methods

Data was mapped from existing measures and indicators routinely collected in the USA that are used in the five star system to existing measures and indicators routinely collected in the Australian aged care system and relevant to RACF quality and performance.

Results

Many similarities exist in current data collections. Mandatory quality assessment occurs yearly in both setting and domains are similar. Gaps were identified both ways. There is no current system for reporting staffing hours in Australia although this will be mandatory by July 2022. Hospital and PBS items are able to be used in Australia to report on clinical indicators however these are not currently publicly available or used in the US system. Data can be combined into a continuous composite index by using appropriate methods such as winsoring, normalising and weighting the individual quality indicators.

Implications

A composite quality index to monitor and benchmark quality and efficiency performance of RAC homes in Australia will require a more comprehensive and systematic approach. This approach requires not only consideration of additional data-driven statistical methods but also broad stakeholder engagement. The latter is required if the aged care system of Australia aspires to develop a participatory weighting scheme based on preference elicitation methods.

How effective are pictures in eliciting information from people living with dementia? A systematic review

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Background

Decline in language and cognitive functioning often deprives people living with moderate-to-severe dementia of self-reporting their quality of life (QoL) on the written and verbal formats of questionnaires. Consequently, proxies report it on their behalf, however, there are significant differences between self-reported QoL and proxy reports. This systematic review aimed to evaluate the effectiveness of pictorial tools as an alternative method for enabling people living with dementia to self-report their QoL.

Setting

Studies conducted with people living with dementia in the community and residential care settings were considered eligible.

Methods

This systematic review was conducted in line with the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines. Primary research studies in English, reporting on information elicitation from people living with dementia through pictures, were deemed eligible. Six studies satisfied the inclusion criteria. Methodological quality of the studies was evaluated through Downs and Black checklist. Data was extracted according to population, intervention, comparator, and outcomes (PICO) and results were summarised and supplemented by narrative synthesis.

Results

Compared to usual communication methods, pictorial tools were found to have a superior effect on comprehension of conversations and decision-making abilities, minimal effect on preference consistency, and an undeterminable effect on discourse features.

Implications

There is consistent evidence that pictures enhance comprehension and might facilitate decision-making abilities. Our findings suggest that QoL information can be elicited more effectively through pictorial tools compared to usual communication methods alone. Future studies warrant development of pictorial versions of standardized QoL tools which will assist the inclusion of people living with severe dementia.

Self-harm in people over 40 living with dementia: predictors, patterns of service use, and mortality.

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Background
People living with dementia have high rates of self-harm. However, our understanding of the factors that lead to self-harm in people living with dementia and ensuing health outcomes is poor. To facilitate proactive intervention and appropriate service referral for people living with dementia, our study aimed to address these gaps in our understanding of self-harm in people living with dementia.

Population
Using a large linked administrative dataset from New South Wales, Australia (2001-2015), we defined two cohorts of people aged over 40 years: i) people who had received a diagnosis of dementia during a contact with a hospital service, n = 154,811; and ii) people who had presented to a hospital service for self-harm, n = 28,972.

Method
We used flexible parametric survival analyses to investigate predictors of self-harm for people living with dementia. For people who had both a history of dementia and self-harm, we used a combination of survival analysis and Poisson regression to investigate predictors of hospital service use and mortality.

Results
We found that self-harm and dementia diagnoses were most likely to occur within two years of a dementia diagnosis or initial self-harm presentation respectively. Among people living with dementia, older men and those with a history of poor mental health were at the greatest risk of self-harm. Physical and mental health comorbidities were the most prominent predictors of hospital service use and mortality for people with a history of both dementia and self-harm. Notably, mental health ambulatory service use was associated with a lower rate of mortality.

Implications
Our study highlights the need for improved mental health and behavioural supports for people living with dementia. Focus should be placed on supporting older men and those with a history of poor mental health.

Leveraging Natural Language Processing and Clinical Notes for Dementia Detection

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Background

In Peninsula Health, routinely collected data (e.g. coded hospital data, clinical notes) are currently being used to develop dementia prevalence estimates. This is limited and often returns low sensitivity (around 0.14-0.26) because dementia is not always recorded in the hospital notes in such a way as to allow hospital coders to code for dementia. We aim to develop various NLP models with clinical notes for more accurate identification of dementia than using structured (coded) data.

Method

After filtering patients who were admitted before 2021 in Peninsula Health, the NCHA data team established three validation cohorts based on 974 patients: (1) confirmed dementia, (2) confirmed non-dementia, and (3) possible/uncertain dementia. For each patient, all the clinical notes were used. We apply a fine tuned MedCat model on the clinical notes and get the corresponding UMLS annotations for each patient.

For model development, we develop four statistical Machine Learning models and a Deep Learning pipeline. We evaluate the above models within two settings: four cohort (1a, 1b,2a, 2b) and two cohort (1a1b v.s. 2a2b) classification. We use notes from 90% of the patients as training data, the rest 10% as the test set.

Result

62 dementia related terms and phrases are identified by medical experts, we extend the list with UMLS and get 235 dementia related key concepts. We find that the dementia-likely patients tend to have three times more medical notes than non-dementia patients(241-283 v.s. 66-74), and more than 25% of those dementia patients' documents are progress notes. Among the four statistical models, Linear SVM performs the best, achieving an accuracy of 0.572 on four cohort classification and 0.77 on two cohort classification.

Key Message

The 250 dementia related UMLS concepts that we recognize are useful for dementia detection based on medical notes.

Non-admitted patient health service use among people with a hospital diagnosis of dementia: a regional propensity-matched cohort study

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Background

Older people with dementia experience a high disease burden, with an average of 5.4 health conditions compared to 2.9 among older people without dementia. The most common comorbid conditions are arthritis, hypertension, deafness/hearing loss, depression/mood affective disorders, stroke, and diabetes. The Royal Commission into Aged Care Quality and Safety recommended a post-diagnostic support pathway be developed for people with dementia to improve access to services which maintain health, wellbeing and independence. Non-admitted care provides an important interface between hospital and primary care however evidence on non-admitted patient (NAP) care use by people with dementia is lacking.

Method

Residents aged 65 and older in Illawarra Shoalhaven Local Health District (ISLHD) were identified with an inpatient dementia diagnosis between July 2015 and June 2020. Propensity-matched controls were matched on socio-demographics, admission characteristics and comorbidity profile, and whether living in aged care.

We compared the percentage of people accessing NAP clinics, emergency department (ED), inpatient and community mental health (CMH) 12-months post-hospitalisation and median number of visits. McNemar's test was used to compare proportions.

Results

The study cohort consisted of 4,511 matched pairs. People with dementia were less likely to have a NAP contact (68.0% vs 75.7%, p<.01) or hospitalisation, and more likely to use CMH. Among those accessing care, people with dementia had lower NAP contacts (8 vs 11), ED visits and CMH contacts.

The highest NAP use by people with dementia was for geriatric services, ACAT, integrated care, palliative care, and respite/day care. People with dementia were most likely to be cared for by nursing (59.2%), medical practitioners (47.0%) and allied health therapy (24.3%) providers.

Implications

Globally there are calls for better health care access across the care continuum. People with dementia in the region may be missing out on evidence-based services which support quality of life and symptom management.

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Obesity, multimorbidity, and patterns of healthcare services utilisation in Australia: evidence from a longitudinal study of 20,000 adults

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Background

Obesity and multimorbidity are long-term chronic health conditions that impact the use of healthcare services. This study investigates this relationship in a cohort of Australian adults.
Setting: Australia

Methods

The present study followed a retrospective cohort design, consisting of 41,073 person-year observations. This study applies Generalized Estimating Equation, negative binomial and Zero-Inflated Negative Binomial regression models by taking into account the characteristics of the outcome variables.

Results

The present research found that rates of doctor visits were 1.26 (Incidence Rate Ratios [IRR]: 1.26; 95% Confidence Interval [CI]: 1.23-1.29) and 1.92 (IRR: 1.92; 95% CI: 1.86-1.98) times higher among obese and adults with multimorbidity compared to healthy weight and peers without multimorbidity, respectively. Obese adults were 1.24 (Odds Ratios [OR]: 1.24; 95% CI: 1.15-1.33), 1.13 (OR: 1.13; 95% CI: 1.06-1.20), 1.34 (OR: 1.34; 95% CI: 1.21-1.50), and 1.34 (OR: 1.34; 95% CI: 1.24-1.44) more likely to visit a hospital doctor, specialist doctor, mental health professionals, and have health check-ups, respectively, than healthy-weight counterparts. The results also showed that individuals with multimorbidity had 2.16 (OR: 2.16; 95% CI: 2.00-2.33); 2.58 (OR: 2.58; 95% CI: 2.41-2.76), 1.40 (OR: 1.40; 95% CI: 1.23-1.60), and 5.17 (OR: 5.17; 95% CI: 4.50-5.94) times greater utilisation of the above-mentioned healthcare services, respectively, compared to peers without multimorbidity. Moreover, hospital admission rates were 1.21 (IRR: 1.21; 95% CI: 1.07-1.37) and 2.33 (IRR: 2.33; 95% CI: 2.15-2.52) times greater among obese and adults with multimorbidity. Furthermore, night stay in hospital is 1.58 (IRR: 1.58; 95% CI: 1.39-1.80) times higher among adults with multimorbidity than their counterparts.

Conclusions

Obesity and multimorbidity are significant public health concerns that require long-term management, with an emphasis on prevention. Failure to properly manage these chronic conditions may result in obesity-induced chronic diseases continuing to rise and increase pressure on the health system.

Impacts of a care pathway program on healthcare utilisation and costs: a matched multiple control cohort study in Saskatchewan, Canada

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Background

Saskatchewan has made significant progress in implementing care pathways for a number of resource-intensive health conditions. However, there has not been any rigorous evaluations of care pathways in the province. The study's objective was to evaluate the impacts of a chronic obstructive pulmonary disease (COPD) care pathway program on healthcare utilisation and costs.

Methods

A difference-in-differences evaluation of a real-life deployment of a COPD care pathway, using patient-level administrative health data in Saskatchewan was conducted. The intervention group (N = 759) included adults (35+ years) with spirometry-confirmed COPD diagnosis recruited into the program in Regina between April 1, 2018 and March 31, 2019. The two control groups comprised adults (35+ years) with COPD who lived in Saskatoon during the same period (N = 759) or Regina between April 1, 2015 and March 31, 2016 (N = 759). One-to-one matching on propensity scores was used to form separate matched pairs.

Results

Compared to the individuals in the Saskatoon control groups, individuals in the COPD care pathway group had shorter inpatient hospital length of stay (average treatment effect on the treated [ATT] -0.46, 95% confidence interval [CI] -0.88 to -0.04) but higher number of general practitioner (GP) visits (ATT 1.46, 95% CI 1.14 to 1.79) and specialist physician visits (ATT 0.84, 95% CI 0.61 to 1.07). Regarding healthcare costs, individuals in the care pathway group had higher COPD-related specialist visit costs (ATT 81.70, 95% CI 59.45 to 103.96) but lower COPD-related outpatient drug dispensation costs (ATT -4.81, 95% CI -9.34 to -0.27). Except for a few key differences, the effects were similar when the pathway group was compared with the Regina control group.

Key Message

The care pathway reduced inpatient hospital length of stay, but an increased GP and specialist physician visits for COPD-related services within the first year of implementation.

Patient-reported experiences and outcomes following hospital care are associated with risk of readmission among adults with chronic health conditions

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Background
The Bureau of Health Information utilised the NSW Patient Survey Program Leading Better Value Care cohort data to identify experiences that reduce the risk of readmissions for adults with chronic obstructive pulmonary disease (COPD) or congestive heart failure (CHF). This study aimed to support efforts to improve care by identifying patient reported measures associated with readmission for high users of hospital services.

Method
A retrospective, cross-sectional study was conducted using a census sample of adults with COPD or CHF who were admitted for acute care in a public hospital in New South Wales during a three-month period in each of three years (2394 COPD patients and 2476 CHF patients in 2018-2020). Patient-level survey data were linked with inpatient administrative data for one year prior to risk-adjust the risk of readmission and after discharge to detect all cause unplanned readmission to a public or private hospital. Cox regression models were used for exploring the associations, also accounting for clustering of patients within same hospitals.

Results
Ninety-day readmission rates for respondents with COPD or CHF were 17% and 19%. After accounting for patient characteristics, adults with COPD or CHF who said the care and treatment didn't help at all were at twice the risk of readmission compared to those who responded that care and treatment helped "definitely". Patients who offered unfavourable ratings of overall care, understandable explanations, organised care, or preparedness for discharge were at a 1.5 to more than two times higher risk of readmission. Other experiences that matter relate to respect and dignity, effective communication, and timely and coordinated care.

Implications
Patient reported experiences were strong predictors of 90-day readmission, even after accounting for characteristics such as co-morbidities. These results suggest that increasing each patient's positive experiences progressively reduces the risk of readmission for adults with chronic conditions.

Telehealth breathing training group for adults with chronic pain: a mixed methods pilot study

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Introduction

1 in 5 Australians living with chronic pain in 2020. Recent literature indicates the prevalence of chronic pain might rise globally as a part of post COVID-19 syndrome. Breathing training (BT) as self-management in chronic pain is an emerging area in research and clinical practice. However, there is a gap in the evidence on the effect of delivering BT via telehealth group. This pilot study aims to trial the implementation of BT via telehealth in a rural NSW adult population and explore the patient's perspective and experience of participating in the intervention.

Method

This study is currently in the data analysis phase and will be finalised by June 2022. Participants who were on the Western NSW Health Chronic Pain Services pathway were recruited to attend a 3-session weekly telehealth BT intervention group. Standardised outcomes measures were taken pre and post intervention, and at 3 months which includes Depression Anxiety Stress Scale 21 (DASS 21), Pain Self-Efficacy Questionnaire (PSEQ), and Pain Coping Strategies (PCS). Descriptive analysis is used to analyse the outcome measures data. Participant's perspectives were explored using a semi-structured interview post intervention and a focus group at 3 months.

Findings

Following themes have emerged from 8 participants: (1) benefits of BT, (3) perception of group setting, (4) acceptability of telehealth, (5) timing of BT. The participants reported to experience and maintained the benefits of attending telehealth BT. All participants viewed the group setting favorably and reported positive effects on their mental health and wellbeing. The participants expressed acceptance of the telehealth delivery during the COVID-19 pandemic and beyond. The participants suggested that telehealth BT group should be offered at multiple points in the patient journey.

Implications

These preliminary findings demonstrated potential significance for incorporating telehealth BT group in chronic pain service pathway and will inform a larger study.

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Balancing value versus burden: people with multiple sclerosis' attitudes to personalised medicine and collection of their data

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Introduction

People with multiple sclerosis (MS) describe uncertainty and anxiety about prognosis and treatment. Clinicians and researchers seek to alleviate this uncertainty through development of precise and personalised approaches to medicine that can inform diagnosis and prognosis. Personalised medicine is underpinned by the collection and use of a broad range of personal health information. This study aimed to explore the attitudes of people with MS towards personalised medicine and collection of their personal health information, including that collected via non-invasive technologies or wearable devices.

Method

We adopted a qualitative descriptive study design and inductive thematic analysis. Focus groups (n=4) were conducted between March and August 2019; one in a large capital city, two in a smaller capital city and one in a regional city. All participants were adults living with MS in Australia, which included people with a diagnosis of MS (n=27), or a family member (n=3), partner (n=4), or carer of a person with MS (n=2).

Results

We identified three overarching themes: (1) Burden of data collection and management vs impact upon illness; (2) Big data for knowledge (for society) vs personal data (for me); (3) Privacy vs benefits to self and others. Participants recognised the "greater good" that might be realised from collection of their personal health information but that it must be balanced against the personal burden of data collection and management, and against data privacy and protection.

Key message

The collection of personal health information to inform personalised medicine is a burden for many people with MS as it immerses them in their condition. People with MS recognise that personalised technologies can offer significant benefit but want to know how their data will be used, who will be using it, and what value it can provide for themselves and the broader MS community

Improving hypertension diagnosis through machine learning in a national general practice database

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Background

Millions of people with hypertension remain undiagnosed and untreated, resulting in avoidable consequences. We aimed to use machine learning to improve the identification of patients at risk of hypertension by using electronic medical records (EMR).

Methods

Cross-sectional study using data from MedicineInsight, a database containing de-identified EMR of 1.9 million patients attending 650 general practices across Australia. Manual algorithms were used to identify patients with a newly recorded hypertension diagnosis between 2016-2018 in 735,000 regular adults without a history of hypertension: 1) two or more records of elevated blood pressures (BP ≥140/90); or 2) diagnosis, encounter reason, or prescription reason of “hypertension”; or 3) prescription for anti-hypertensive therapy preceded by an elevated BP. Using a dataset where the above information was removed, deep learning techniques (a subset of machine learning) were employed to determine whether patients with hypertension could be identified based on other information in the EMR.

Results

The manual algorithm identified 119,230 adults with a newly recorded hypertension diagnosis (average age 56.4 ±15.8 years; 53.0% female). The sensitivity and specificity of the deep learning techniques were 81.0% and 71.3%, respectively. Preliminary analysis was able to identify complex interactions in the EMR to identify patients with hypertension.

Conclusions

Using routinely collected data from primary healthcare settings, deep learning techniques are able to identify patients who may have hypertension using non-traditional variables.

Key message

Machine learning could support the identification of patients at risk of hypertension by using EMR and flag these patients to general practitioners for further investigation.

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Patient chosen gap payments in primary care: Predictions of patient acceptability, uptake and willingness to pay from a discrete choice experiment

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Background
Compulsory co-payments limit access and may compromise quality in primary care. Patient Chosen Gap Payments (PCGPs) allow patients to specify a (voluntary) out-of-pocket contribution, creating an incentive for patient-centred care without the need for complex outcomes-based funding formulae. It is not yet known if widespread use of PCGP services is consistent with consumer preferences.

Population / setting
Sample of the adult Australian general population (n = 1457).

Methods
We conducted a discrete choice experiment (DCE) in during April 2019 to simulate patient choice between alternative primary care services and describe preferences for PCGP services. Participants also completed a supplementary valuation task in which participants reported their intended PCGP contribution for PCGP services. Finally, we conducted policy-simulations to predict market shares when PCGP clinics operate alongside the two existing models of primary care funding in Australia.

Results
Results suggest that patients prefer shorter wait time, longer consults, lower compulsory copayments, services with higher patient satisfaction ratings, choice of doctor and $0 suggested voluntary contribution for PCGP services. Policy-simulations suggest that high-quality PCGP services could obtain market share of up to 39% and voluntary contributions of up to $25.36 per service (95%CI: $10.24, $40.47), potentially adding $1.48 billion AUD in revenues and funding for primary care at no cost to government. Low-quality PCGP services are unlikely to capture significant market share and PCGP contributions were lowest for low-quality PCGP services ($12.12, 95%CI: $2.09, $26.34). Further field testing is recommended where (i) patients make consequential choices (e.g. real payments for simulated services), and (ii) dynamic effects on quality and utilisation can be observed.

Implications
PCGP services aligned with patient preferences could capture significant market share and substantially increase revenue to general practice. Research is underway to test whether PCGP market share and contributions vary in line with adherence to clinical practice guidelines.

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Preferences for a polygenic test to estimate cancer risk

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Introduction
There is significant interest in the use of polygenic risk score (PRS) tests to improve cancer risk assessment and stratified prevention. Our current understanding of preferences regarding different aspects of this novel testing approach is limited. This study examined which attributes of a PRS test most influence the likelihood of testing.

Population
A representative online sample of the Australian adult population.

Methods
A discrete choice experiment was developed to elicit preferences for different aspects of a PRS test. Preferences were assessed using mixed logistic regression, latent class analysis and marginal willingness to pay.

Results
The 1002 respondents were more likely to choose a PRS test that was more accurate, tested for multiple cancer types and enabled cancer risk reduction through lifestyle modification, screening, or medication. There was also a preference for testing through a general practitioner rather than online or through a genetic specialist. A test that did not impact life insurance eligibility or premiums was preferred over one that did.

Key message
This study found that the Australian population prefer a PRS test that is highly accurate, tests for multiple cancers, has non-invasive risk reduction measures and is performed through general practice.

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Men’s preferences for image-guidance in prostate radiation therapy: a discrete choice experiment

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Background

Men with prostate cancer undergo monitoring of the prostate position during radiation therapy. Several options for real-time prostate monitoring exist including fiducial markers (FMs) and transperineal ultrasound (US). However, the patient experience for these distinct procedures is very different. This study investigated preferences around various aspects of prostate image-guidance, focusing on FMs and US.

Population

Male participants were recruited from prostate cancer patients presenting to a regional cancer centre and the general Australian population.

Methods and Materials

A discrete choice experiment (DCE) was conducted, with the attributes of: pain; out of pocket cost; accuracy, side effects; additional appointments; and additional time. The DCE survey required participants to make hypothetical choices in each of 8 choice sets. Multinomial logit modelling and Latent Class Analysis were used to analyse the responses. Marginal willingness to pay (mWTP) was calculated.

Results

476 respondents completed the survey (236 prostate cancer patients and 240 general population, mean age of 73.8 and 44.3 years respectively). The most important attributes were pain, cost and accuracy for both cohorts ($p<0.01$). Prostate cancer patients were more willing to pay a higher cost to avoid worst pain than the general population, and also more willing to pay a higher cost for increased accuracy. Latent Class Analysis revealed 3 groups: 2 were focused more on the process-related attributes of pain and cost, and the third was focused on the clinical efficacy attributes of accuracy and side effects. There was a tendency for those with higher education to be in the clinical efficacy group ($p<0.01$).

Implications

Both prostate cancer patients and the general population preferred less cost and pain, and improved accuracy. Radiation oncology centres should consider the preferences of patients when considering image-guidance techniques in addition to the clinical and technical evidence.

Are Quality Adjusted Life Year (QALY) gains in children of similar value to those in adults? A qualitative exploration with young people, adults and decision makers

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Background

We aimed to compare the views of diverse stakeholders about whether children's health gains should be valued as equivalent to gains for adults in formal decision processes regarding funding of health technologies; and to describe how decision-makers navigate these social values in practice, particularly in relation to funding of health technologies for children and young people (CYP) compared to adults.

Methods

A qualitative study involving individual in-depth, semi-structured interviews with young people (aged 15-17), adults, and participants in Pharmaceutical Benefits Advisory Committee (PBAC) and Medical Services Advisory Committee (MSAC) Health Technology Assessment (HTA) processes. Interviews ranged from 30 to 95 minutes, following a semi-structured interview guide. Transcripts were analysed using thematic analysis.

Results

10 young people (aged 15 to 17), 20 adults from the general population and 23 professionals were interviewed. We identified 4 preliminary themes: 1) Prioritising vulnerable populations using a deliberative approach; 2) Navigating decision-making trade-offs; 3) Ambivalence about favouring CYP compared to adults; and 4) Negotiating moral boundaries. Broadly, participants believed health resources should be prioritised for some populations more than others, but there was strong disagreement over whether CYP status could be isolated as a criterion for decision making about the value of health gains.

Key messages

While all stakeholders recognised that some form of health resource prioritisation was necessary and acceptable, preliminary findings suggest that few stakeholders—citizens or decision-makers—would support a standardised ‘rule’ that valued benefits for CYP more than benefits to adults. Decision-makers resisted the idea of algorithmic decision-making, and valued the nuance and complexity available in deliberative decision-making while recognising that it carried some risks. This study provides novel insight into both the process and the substance of Australian HTA in relation to age.

Session 1F: COVID-19: Health service response

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A telephone based COVID-19 Community Monitoring Service: a mixed methods evaluation

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Background
The coronavirus pandemic (COVID-19) has put unprecedented demand on health services. Provision of support and monitoring for patients who are experiencing mild illness and self-isolating at home may allow hospitals to reduce the risk of exposure for health care workers, assist with reducing community spread, and improve capacity to accommodate those with more severe illness.

Population/Setting
A hospital based monitoring program to manage COVID-19 positive patients in their home.

Methods
A retrospective mixed methods evaluation of a telephone based community monitoring program using the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) framework. Descriptive statistics were used to present demographics and patient outcome data. Interviews and surveys were used to capture staff and patient experience.

Results
A total of 855 COVID-19 positive patients were enrolled (54% female, mean age 34 years [SD 17]). 409 (48%) patients were born outside Australia. 305 (36%) were classified as having a high risk of serious illness from COVID-19. There were no deaths in patients that participated in the service. Common reported ongoing symptoms were fatigue (55%), breathing issues (26%) and mental health issues such as low mood (19%). 15 staff participated in interviews and 271 patients participated in a survey. A total of four final themes emerged: service commissioning enablers, service delivery benefits for patients, fragmentation of care, and workforce strengths.

Implications
Rapid commissioning of this community monitoring service ensured early detection of deterioration and there were no deaths in those patients being monitored. Additional benefits included provision of accurate and trustworthy information to isolate safely at home and prevent community transmission. The main challenges experienced by staff and patients were the multiple agencies involved in patient monitoring, which will be addressed in the future by attributing responsibility for monitoring to a single agency.

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Primary care attachment patterns and COVID-19 vaccination uptake in Ontario, Canada: Health service implications

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Introduction/background

In Ontario, Canada, primary care providers have played an important role in facilitating covid -19 vaccination efforts. The relationship of those who do not have a primary care provider on vaccination status is not well understood and little data has been published on this. This study explores the association between primary care attachment and patient enrolment model (PEM), and COVID-19 vaccination status.

Population/setting

We looked at people living in Ontario, Canada aged 12 and older (12,829,049). We used administrative health service records prior to September 1, 2021 to examine attachment to a primary care provider and vaccination status.

Methods

We applied the validated algorithm to identify patient attachment status of people receiving primary healthcare in Ontario. Attachment status was first dichotomized to attached and uncertainly attached to a primary care provider. Patients attached to a PEM were further categorized by: enhanced fee-for service, blended capitation PEM, family health team PEM, not in a PEM, no primary care, and other primary care model. Results: One-fifth (20.2%) of patients attached to primary care were unvaccinated (i.e., 0 doses of any COVID-19 vaccine); among attached patients, the highest proportion of unvaccinated patients were enrolled in Enhanced Fee-For-Service (EFFS) PEMs (37%). Of patients attached specifically to PEMs, the highest proportion of unvaccinated patients remained among EFFS PEMs (38.2%). Of patients enrolled in EFFS models, 22% were unvaccinated; of patients enrolled in blended capitation models, 19% were unvaccinated; of patients enrolled in family health teams, 19% of patients were unvaccinated. Two-fifths (40.2%) of patients uncertainly attached to primary care remained unvaccinated.

Key Message

Our findings indicate primary care attachment increases vaccination uptake. Our findings can assist in guiding health services decision making and government investment in public health campaigns to optimize vaccination uptake.

The effect of COVID-19 and the introduction of temporary telehealth items on the use and costs of GP and ambulatory specialist services: a whole-of-population linked data study

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Background

In response to the COVID-19 pandemic, primary and secondary healthcare in Australia has undergone a rapid transition in the way services are delivered, including the introduction of temporary telehealth items (TTHI). However, the impact of this on individual use and costs of GP and specialist services and to what extent certain population subgroups have been affected differently is unknown.

Method

Using individual-level Medicare Benefits Schedule (MBS) data linked to Census 2016, National Health Survey 2017-18 and deaths data, compiled through the Multi-Agency Data Integration Project, changes in use of GP and specialist services and out-of-pocket (OOP) costs were examined over a two-year period, from 1 January 2019 to 31 December 2020. Use and OOP costs were calculated separately for distinct periods–before COVID 19, early pandemic and pre-telehealth, and post introduction of TTHI–to examine changes over time and in relation to sociodemographic characteristics and selected chronic health conditions (e.g. diabetes or heart disease).

Findings

Data for ~20M persons comprising ~160M GP and ~32M specialist services each year were available for analysis. Changes over time in total and average number of services and OOP costs (for all services and separately by face to face and telehealth), will be presented – for the total sample and by sociodemographic characteristics and health conditions (incomplete at time of abstract submission).

Implications

These data will provide robust evidence on the impact of the COVID-19 pandemic and the introduction of telehealth items on GP and specialist service use and costs, including equity of healthcare. Findings will provide insights as to the potential effects of ongoing widescale integration of telehealth, which could form the basis of major health system reform in Australia.

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Digital infrastructure for care coordination during national emergencies: a precision public health intervention in Australia

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Background

Emergencies disproportionally affect vulnerable populations. The COVID-19 pandemic affected older patients with co-morbidities both directly, with more severe infection, and indirectly, affecting care provision. To promote continuity of care, public health professionals require tools to quickly and precisely coordinate with primary care providers. This study evaluated whether digital interventions powered by current existing infrastructure are more effective than conventional interventions in promoting primary care appointments during national emergencies.

Methods

We developed a digital intervention delivered by secure messaging and compared it to an intervention delivered by post to promote continuity of care in a real world, non-randomised, interventional study. The study was implemented as part of the Veterans' MATES program, an Australian Government Department of Veterans' Affairs intervention that provides targeted education with audit and feedback to Australian veterans and their primary care providers. The intervention took place in April 2020, during the first weeks of COVID-19 social distancing rules in Australia. The main outcome was time to first appointment with the primary General Practitioner.

Results

A total of 77,911 veterans (51,052 digital and 26,859 post) were targeted for the intervention, and 18,577 GPs were identified as their main care provider. The proportion of patients seeing their primary GP during the three months following intervention was higher in the digital group (77.8%) than the post group (61.5%). Being in the digital group was associated with earlier appointments, even after adjusting the Cox model for number of visits in the year prior ($p< 0.01$).

Implications

Current infrastructure coupled with innovative solutions enables the promotion of care coordination at scale during national emergencies, opening up new perspectives for precision public health initiatives. This work reinforces the value of developing solutions fit for context, using iterative and participatory processes.

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COVID-19 and the public health response: impacts on specialist pain services in Australia and New Zealand

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Introduction and population

The electronic Persistent Pain Outcomes Collaboration (ePPOC) is an integrated outcomes centre comprising over 100 adult and paediatric specialist pain services from Australia and New Zealand. This study examined the impact of COVID-19 and the associated public health response on pain services, patient treatment and outcomes.

Method

Employing a mixed methods design, between September 2021 and March 2022 ePPOC undertook monthly surveys of member services to examine COVID-19-related changes to referral volumes, capacity, care delivery and access to resources. Services also described impacts not captured via the standard survey questions. Routinely collected outcome data and subsequent monthly survey results provided a timely picture of the pandemic's evolving impact.

Results

69 services responded at least once to the survey, with a median monthly response of 33 services. Analysis identified three broad areas of negative impact: service provision, clinical care and mental health. Many clinics pivoted to telehealth, but often regarded this medium as ill-suited to key aspects of chronic pain treatment. Resources shortages and infection control measures prevented the delivery of some treatment components, e.g., groups, hydrotherapy. Overall, there was reduced service capacity and a more limited care approach. Services also reported increased mental health presentations in patients, and heightened emotional distress in staff. Routinely collected outcome data suggests the combined effects of these changes may be delayed or may be reflected in alternate healthcare settings.

Implications

Specialist pain services faced explicit challenges during the pandemic. Services were resilient, innovative and responsive in their efforts to minimise disruptions to patient care, however reduced capacity coupled with continued demand suggests extended wait times, which in turn are associated with greater complexity at treatment commencement and poorer outcomes. Strategies are required to address referral backlogs and to support persons awaiting treatment, their interim healthcare providers and specialist pain service staff.

Early and ongoing impact of the COVID-19 pandemic on the financial viability of Australian primary care practices

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Introduction
Primary care practices faced many challenges responding to the COVID-19 pandemic including a downturn in patient attendances, the rapid adoption of telehealth and increased bulk-billing. This research investigates the impacts of these adaptions on practice financial viability and resilience.

Population/Methods
An online survey (conducted April 2021) of Australian general practices and community allied health practices (AHPs) operating prior and during the pandemic. The survey explored adaptations and impacts on practice finances during early lockdown and a year into the pandemic. The survey was co-designed and piloted with primary care research partners. Respondents were recruited through the primary health network, peak bodies and social media.

Results
72% (n=213) of valid responses were from general practices (including general practitioners n=142, practice managers n=49, practice nurses n=19) with 28% (n=84) from AHPs (most commonly psychologists n=22, chiropractors n=19)

During early lockdown most respondents reported reductions in patient numbers (66%) and income (72%). Practices adapted most commonly by decreasing staffing hours, and less commonly laying off staff. The introduction of Medicare funded telehealth had highest reported positive impact, while requirements to bulk-bill telehealth items early in the pandemic had the largest negative impact.

Most respondents (62%) indicate optimism about the future viability of their practices, although 46% of respondents report decreased profitability one year after pandemic onset. Reduced ongoing practice profitability was more commonly reported by general practice respondents (56%) than AHPs providing mental health services (24%) or physical health services (31%). 42% of general practice respondents felt the COVID vaccination program would worsen practice viability (19% improve, 35% no change).

Implications
Many primary care practices continue to suffer negative financial impacts one year after the pandemic onset. This is likely to decrease practice viability, affecting the sustainability of the primary care workforce, access to services and current models of primary care.

An empirical method to differentiate patients are admitted with or due to COVID-19 in NSW

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In early 2022, NSW Health system was under great pressure due to many COVID-19 patients presented at hospitals. The main reason for these admissions are often not well recorded and hence pose a challenge for the system and clinicians to offer appropriate care. An algorithm was developed aiming to assess the extent to which COVID-19 positive patients are admitted because of COVID-19.

Several hundreds of admission reasons of COVID-19 patient records in NSW Health were reviewed and keywords are identified. Keywords were then reviewed by clinicians and researchers to group keywords into three main categories—COVID-direct (i.e. COVID-19, suggesting patients admitted directly for COVID-19), COVID-indirect (i.e. Vomiting, suggesting admitted for another principal reason but COVID-19 complexified their care) and incidental (i.e. Chest pain, suggesting patients admitted with COVID, rather than for COVID). For those admissions with multiple reasons recorded, a pre-defined hierarchy (COVID-direct, incidental, then COVID-indirect) was used. Keywords were reviewed regularly to capture new or emerging admission reasons.

Of 43,317 admissions between January and May 2022, 28% of records do not have a valid admission reason. Of the remaining 31,134 admissions, 49%, 17% and 34% were grouped into COVID-direct, COVID-indirect and incidental, respectively. COVID-direct accounted for most admission over time (41%-62%). Patients aged 50 and above accounted for most COVID-direct admissions, while aged 18-49 accounted for the most of COVID-indirect and incidental admissions. Proportion of admissions with short stay (< 7 days) accounted for the most admissions regardless of group over the study period.

This algorithm has the potential to provide simplified but timeliness information at frontline to help manage COVID positive patients seeking for medical care in hospitals. This algorithm can adopt other keywords for identifying condition of interest. Routine feedback to hospitals may also facilitate clinicians/hospitals review their coding practice.

Symposium 3: What it takes to create value based maternity care

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Complexities of evidence adoption and adaption in maternity care: the txt4two experience

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Background

txt4two is a multi-modality intervention aiming to promote healthy nutrition, physical activity and gestational weight gain (GWG) in pregnant women. Program components were co-created with women and antenatal health professionals and mapped to behaviour change techniques. Delivery modalities include health professional introduction, tailored, bi-directional text messages, website, videos, and chat room. A feasibility RCT (n=91) demonstrated significantly lower GWG (7.8kg + 4.7 versus 9.7 kg + 3.9; p=0.041) and smaller reductions in physical activity (p=0.001).

Setting

Following the feasibility trial, another tertiary level hospital, Brisbane's Mater Mothers Hospital's, wished to comparatively evaluate a pragmatic implementation of a tailored version of txt4two.

Methods

Using a consecutive cohort design and the RE-AIM framework for implementation and evaluation, txt4two was delivered through the antenatal clinic, with locally-adapted texts and online platforms. Eligibility criteria: BMI > 25kg/m2; receiving publicly-funded care; singleton pregnancy between 10+0 to 17+6 weeks; mobile phone ownership.

Women were to be recruited through hospital registration and social media, with 150 women per control and txt4twogroups, surveyed at baseline and 36 weeks. The txt4two group also received a health professional goal-setting appointment and the program.

Findings

txt4two delivery has recently completed with reach, effectiveness and implementation metrics to be presented. Embedding a research program in another context raised numerous implementation challenges, further complicated by COVID-19. Implementation took two years due to extensive navigation of interdependent but unaligned systems (ethics, governance, IT governance, clinical and managerial groups, research institute, hospital education, legal services, marketing, and administration services). Adaptations included recruiting via hospital registration SMS towards the end of the control period.

Implications

As we move beyond pilots and embed research programs within health services, we need to understand transformational impacts on program fidelity and health outcomes, as well as facilitators and barriers, to strengthen the evidence for the refinement of implementation plans.

Patient-reported outcomes and cost-effectiveness in maternity services.

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Background

Childbirth is the leading cause of hospital admission in Australia. It is therefore important to deliver efficient and high-quality maternity healthcare services. However, internationally, best models of care and appropriate, cost-effective interventions in maternity services remain contested. Internationally, there is very little, if any data on women's antenatal and postpartum patient-reported outcomes and/or utility, a measure of quality life between the values of zero and one. For example, the mean utility of a sample of women who had a caesarean section might be 0.75 or 0.9 and the difference could affect results of cost-effectiveness analyses in maternity services.

Setting

This study was conducted at Mater Health Services, South Brisbane as an ongoing universal establishment of patient-reported outcome measures across public and private maternity services.

Method

All women who were cared for antenatally and birthed at the Mater private and public hospitals were invited to report their patient-reported quality of life outcomes using the PROMIS-10 tool. This study is a longitudinal cohort study, as patient-reported outcome measures have been established as an ongoing value-based healthcare strategy to monitor quality of the maternity service and drive innovation.

Results

In the first 9 months of the study, 531 antenatal and 2293 birthing women provided quality of life data, which corresponded to a 24% and 40% response rate respectively. PROMIS-10 responses were transformed into utility values with a mean utility of 0.68 for all women. Mean day 7 postpartum utility did not vary significantly by mode of birth when examined using ANOVA and multiple linear regression modelling. In the most parsimonius linear regression model (R-squared = 0.943), postpartum utility for all women was significantly improved with age (β coefficient 0.01 p = 0.035).

Key message

Engaging women with maternity patient-reported outcome measures is difficult, but critical for value-based maternity services and cost-effectiveness analysis.

Care pathways for reduced fetal movements, a cost analysis.

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Introduction
Reduced fetal movements (RFM) is the most common reason for emergency presentation to obstetric units during the second and third trimesters of pregnancy. Prompt assessment and management of these women has been shown to reduce the rate of stillbirth. As a result, a midwifery-navigator care pathway was created at our institution to manage patients with RFM. The objective of this study was to assess whether the new care pathway has resulted in improved patient flow and admission times, and whether it is cost-effective.

Setting
This study was conducted at the Royal Brisbane and Women's Hospital's Obstetric Review Centre in Queensland, Australia.

Method
A retrospective cohort study was conducted with patients who presented for emergency review of RFM prior too, and following, implementation of the care pathway in 2018 and 2019. Using this admission data, a state-based Markov model was created to simulate the cost-effectiveness of the implementation over a 12- month time horizon in a department delivering 5000 women/year.

Results
In total, 253 patients were involved in this study, 141 in the intervention arm and 112 in the control arm. Patients with RFM accounted for 28% of acute presentations (2521 patients with RFM for 8924 presentations in 2019). The midwifery navigator pathway significant reduced patient admission time (1hr 56 mins vs 3hrs 3mins, P<0.001) and with a cost saving of AU$ 86 067/year, or AU$78 per patient. There were no stillbirths in either group, and no difference in maternal or fetal delivery outcomes.

Key message
Care pathways, in this case the use of a midwifery navigator may be beneficial to improve patient admission times and costs associated with the increasing burden of RFM.

Implementation science and active co-design – a recipe for successfully producing a perinatal education program that partners with Queensland mums.

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Introduction

Women-centred perinatal education is a core component of high quality, effective maternity care for positive pregnancy outcomes. However, an evidence-practice gap exists through misalignment between the needs of women and their families, the evidence-base, and how and what education is provided to empower women in pregnancy, birth and beyond.

To effectively engage with expectant and new parents throughout the perinatal period in a digital age requires a clear recipe. Implementation science and health behaviour theories, models, frameworks, and tools are all important ingredients that can support the research process by delivering a practical structure underpinned by theory. This paper aims to outline a multidimensional approach to designing and implementing a woman and family centred perinatal education program in a large maternity hospital.

Methods

Two key ingredients are required. Firstly, the rich base of theories (education pedagogy, health behaviour, women-centred perinatal care, and implementation science) provides structure to the dish. Secondly, a generous helping of local flavours of understanding local needs (community, organisation, participant) provides insight into the enablers and barriers to implementation.

These flavours define the dish. Next is blending these two ingredients through co-design with expectant and new parents, and the multidisciplinary healthcare team. This balances the dish to best meet needs, enhance enablers, overcome barriers, and apply theory to practice. Implementation science frameworks are an appetizing, systematic and rigorous way to articulate and operationalise all steps to plate-up an implementation and evaluation plan for an effective program of co-designed perinatal education.

Results

This recipe has produced unique and responsive pregnancy, birth, postnatal and parenting education served up in a program delivered over multiple platforms.

Implications

Co-design with all stakeholders gives insight into local needs and operationalising a theory informed approach to care. Understanding this through an implementation science lens provides a structure to guide the process.

Lessons learned in engaging clinicians to address unwarranted clinical variation in maternity care.

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Introduction
Unwarranted clinical variation (UCV) is a major healthcare challenge. It may indicate inequality in healthcare provision and reduce health service efficiency and effectiveness, limiting the ability to deliver value-based healthcare. Effective strategies to identify and reduce UCV remain unclear, however practice audit and feedback may have potential. This study aims to understand barriers, enablers and perceptions of maternity clinicians towards using audit and feedback to identify and reduce UCV.

Setting
This study was conducted in the Mater Maternity Network, comprising six Queensland facilities including a tertiary maternity and level six NCCU facility, and encompassing public and privately funded models of care. The network provides maternity care for almost 13,000 births per year.

Method
We conducted a cross-sectional questionnaire of multi-disciplinary Mater maternity clinicians. The questionnaire was informed by the Theoretical Domains Framework and adapted from the Determinants of Implementation Behaviour Questionnaire. New participants in the Mater PICNIC (Practice Improvement with Clinicians eNgaged in Improving Care) audit and improvement program were invited to participate when completing their first clinical audit.

Findings
105 doctors, nurses and midwives participated in the questionnaire across all Mater maternity facilities.

78% of respondents believed that identification and reduction of UCV is “the right thing do to” and 95% were motivated to do this to improve patient outcomes. CPD points (68%), career development (67%) and expectations of patients (60%), colleagues (57%) and Mater organisational culture (57%) were also motivating factors. The main barriers identified were time (80%), competing priorities (75%) and lack of access to resources (data, systems, colleagues, meetings) (45 %).

Implications
These results provide valuable insights into how best to engage clinicians in practice audit and review. The findings can be used to enhance engagement of clinicians in identification and reduction of UCV, to improve care and outcomes, and to enhance value-based healthcare.

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Are virtual visits in primary care associated with more emergency department use?

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Background
To improve access to care and continuity during the COVID-19 pandemic, family physicians increased their use of virtual care. The aim of this study was to understand whether the use of virtual care in the primary care setting was associated with increased emergency department visits.

Setting/Population
Linked health administrative data in Ontario, Canada where primary care and ED visits are fully insured and free at the point-of-care for all permanent residents. All family physicians with billings from February to October 2021 (n=15,155) and all patients living in Ontario and attached to a family physician as of March 31, 2021 (n=14,705,864).

Methods
Population-based study comparing the mean ED visits in Feb to Oct 2019 (pre-pandemic) with those in Feb to Oct 2021, stratified by the family physician's percent of care delivered virtually in 2021. : The primary outcome measured were the mean number of ED visits among patients, stratified by the percent of care delivered virtually by their attached physician.

Results
Mean total ED visits decreased by 15% from 299 per 1000 people in 2019 to 254 visits per 1000 people in 2021. The largest proportion of patients were seen by physicians who provided >60-80% of care virtually (31.7%, n=4,657,341). Patients whose family physicians provided 100% of visits in-person had the highest mean number of ED visits (488 per 1000), while patients whose physicians delivered >80%-<100% care virtually had the lowest volume of ED use (243 visits per 1000).

Key message
Family physicians with a higher proportion of virtual encounters did not have higher rates of emergency department use among their patients. Differences observed in patient ED use across levels of physician virtual care provision were similar in 2019, suggesting pre-existing patterns unrelated to the expansion of virtual care during the pandemic.

Is enrolment with a primary care provider associated with amenable mortality? Evidence from Aotearoa New Zealand, 2008-2017

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Introduction

Having people formally enrol with a general practitioner is an important way of strengthening the connection between health care provider and user, promoting better access to health services (e.g., so people have a health care home they go to first, and through recalls for screening). This system operates in many countries and different forms. Understanding the role that Primary Health Care (PHC) enrolment plays in determining Aotearoa New Zealand's health outcomes is hindered by the lack of a national primary care database. We aim to address that knowledge gap by using data from multiple sources to examine whether enrolment is associated with amenable mortality.

Method

We retrieved details of all the mortality cases registered between 2008 to 2017 from three datasets: PHC enrolment, hospitalization, and mortality. The PHC enrolment dataset provided the enrolment status of those mortality cases enrolled in PHC. The adjusted risk of amenable deaths by PHO enrolment status was estimated by conducting a logistic regression analysis. Adjustments were made for the effects of age, sex, prioritized ethnicity, and deprivation.

Results

The mortality dataset for the study years provided 308,628 analyzable mortality records. Of these, 38.2% were premature deaths, and among them, 47.8% were amenable deaths. The adjusted odds of amenable mortality among those not enrolled in a PHO are 39% higher [OR = 1.39, 95% CI 1.30-1.47] than those enrolled. Similarly, males, youths aged 15-24 years, Pacific People and Māori, and those living in the most deprived areas demonstrated higher risk than their respective reference categories.

Implications

Study findings help understand the implications of not being enrolled with a primary care provider - more likely to die from the amenable causes. These insights will add to the international knowledge on the benefits of the enrolment system for maximizing PHC results.

The challenge of closed books in primary care access, health outcomes and equity in Aotearoa New Zealand

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Background

The prevalence of “closed books”, when general practices do not accept new patients, was estimated in 2018 as 11% in Aotearoa New Zealand. The aim of this study is to update that prevalence estimate and to understand its impact on health outcomes, access, and equity. With these insights, we hope to generate potential solutions to inform decisions and policy reforms.

Method

A mixed-methods approach will be used in this study, including interviews with experts in primary care sector, a survey across general practices, and an analysis of data from the Integrated Data Infrastructure (IDI) held by Statistics New Zealand. The first round of interviews with up to 12 participants will be used to refine the survey questions. Survey will be sent to practice managers, nurses and about 5,500 GPs across 1,000 practices through Qualtrics to estimate the proportion of practices with closed books and factors associated with closed books. The second set of interviews (n=12) will identify recommendations from a primary care perspective. The IDI analysis will compare hospitalization and mortality rates among people who are enrolled at a practice and those who are not enrolled.

Results

The first round of interviews has started, and the survey will be launched in mid-June. The preliminary analysis of the interview data indicates that some practices in urban areas appear to be making decisions about enrolling new patients based on their ethnicity, presumably because of their perceived healthcare needs. The results will be presented at the Sydney conference.

Implications

By providing robust evidence on the extent and impacts of closed books and identifying potential solutions, this study will benefit the population of Aotearoa New Zealand by improving equity and access to primary care. The results and recommendations will also provide other countries with evidence and insights to improve their primary care systems.

Optimising Management Of Knee Osteoarthritis In Primary Care (PARTNER): A Cluster Randomised Controlled Trial

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Introduction

Day-to-day healthcare of Australians with knee osteoarthritis (OA) is inconsistent with recommended guidelines. We evaluated the effectiveness of a new model of primary care-based service delivery for knee OA (PARTNER).

Setting

Australian general practices

Methods

A two-arm, cluster, superiority randomised controlled trial (2018 to 2020, ACTRN12617001595303). We aimed to recruit 44 practices, and 572 patients aged ≥45 years with knee pain for >3 months. General practices were randomly allocated to intervention (PARTNER) or usual care. Interventions targeted GPs and their patients for 12-months. All patients had an initial GP visit to confirm a knee OA diagnosis. PARTNER GPs were offered online professional development opportunities on evidence-based OA care, and asked to have a conversation with patients around the key interventions of physical activity, muscle strengthening and weight-loss. PARTNER patients were referred to a centralised Care Support Team (CST), trained in behaviour change support and OA management. The CST delivered, via telehealth, OA education and an agreed OA action plan targeting the key interventions, and with secondary treatments if required. Primary outcomes were self-reported change in knee pain (numerical rating scale, 0-10=worse pain) and physical function (Knee Injury and Osteoarthritis Outcome Score Activities of Daily Living subscale, 0-100=better function) at 12-months.

Results

The trial was stopped before the target number of practices or patients were recruited due to a delayed start, slow initial recruitment and time constraints. Thirty-eight general practices, and 217 patients were recruited. At 12-months, the intervention improved pain by 0.8/10 points (95% CI 0.2 to 1.5), and ADL function by 6.5/100 points (95% CI 2.1 to 11.0), more than usual care.

Implications

Our findings suggest the PARTNER model improved knee pain and function more than usual GP care, however as the trial was underpowered our findings around the magnitude of change should be interpreted with caution.

Identifying implementation barriers and strategies to support the adoption of universal access to self-collection in primary care practices in Victoria, Australia

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Introduction

Australia's long-established National Cervical Screening Program (NCSP) underwent a significant change in December 2017, moving from cytology to HPV-based primary screening. This provided the opportunity to introduce self-collection cervical screening (vaginal swab taken by oneself), initially restricted to under-screened people. From 1 July 2022, self-collection will be available as a choice for all people undergoing screening, offered by a healthcare professional. The uptake of self-collection has been very low due to implementation barriers within primary care and low awareness among consumers. This study aims to identify suitable tailored strategies to assist the integration of a universally available choice for self-collection in practice.

Methods

10 practices have been recruited (Victoria, Australia) with an additional 2-5 practices to be recruited in before July 2022. Interviews analysed by thematic analysis using deductive coding informed by the integrated Promoting Action on Research Implementation in Health Services and the Consolidated Framework for Implementation Research frameworks.

Results

Data emerging from preliminary interviews (5 interviews, 11 providers) show support for policy change expanding access to self-collection, however they reported differences in how they intend to provide it in practice. Preliminary findings indicate tailored strategies are required to integrate a universally available choice for self-collection, including health-system strategies (financial resources), practice-level strategies (whole of practice, recalls), provider-level strategies (education), patient-focused strategies (resources tailored to patient needs) and community-level strategies (promotion and education).

Implications

This study is being conducted during a time of significant change in Australia's NCSP and will provide highly relevant recommendations to support the roll out of a universally available choice for self-collection in primary care. Preliminary findings indicate tailored strategies are required to support primary care's adoption of a universal available choice for self-collection. This is important to ensure opportunities of self-collection to increase participation and progress Australia's elimination of cervical cancer are realised.

Exploring the Patient Medical Home for Indigenous Primary Healthcare in Alberta, Canada

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Introduction/background

The Patient Medical Home (PMH) model is an approach to delivering high-quality, comprehensive, patient-centered and team-based care. The PMH model emphasizes a patient having an ongoing relationship with a particular doctor (who leads a multidisciplinary practice team) and coordinates patient care across the health system. An Indigenous model of care fosters relationships and collaboration between care providers, patients, families, and caregivers, and ensures Indigenous knowledge, local context, equity of access, and integration of services is supported.

Population/setting

The Indigenous Primary Health Care and Policy Research (IPHCPR) Network in Alberta, Canada brought together primary health care providers, health system leaders, and Indigenous Knowledge Holders, to identify opportunities for adapting the PMH model for Indigenous primary health care delivery in Alberta.

Method

A Primary Health Care Innovations virtual forum was held on May 13th, 2021. The objectives of the forum were to: 1) to engage in a critical exploration of the PMH Model; 2) To identify gaps and/or assumptions underlying the PMH Model and what this means for Indigenous peoples; and 3) To identify opportunities for adapting the PMH model for Indigenous PHC delivery. A pre-circulated evidence brief was circulated to participants which summarized the evidence from a global scoping review on Indigenous primary health care invocations.

Results/findings

Participants explored innovations around the PMH Model. In small breakout group discussions, participants outlined several key elements of an Indigenous PMH, including building relationships and trust with Indigenous patients, incorporating traditional knowledge, funding for infrastructure and care delivery, customized access, cultural safety, and engaging community voices in the design of health services.

Implications/key message

Implementing a PMH Model for Indigenous patients requires addressing structural and organizational barriers such as, funding for infrastructure, ensuring culturally competent care providers, including spiritual and cultural components of health, and exploring alternative payment models for physicians.

Session 2D: Implementation science and knowledge translation

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Knowledge brokering versus recommendation dissemination for healthcare resource allocation decisions: A cluster randomised controlled implementation trial

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Background

Implementing evidence into clinical practice is a key focus of healthcare improvements to reduce unwarranted variation. The aim of this study was to determine the effectiveness of these two research implementation strategies to facilitate evidence-informed healthcare management decisions for the provision of inpatient weekend allied health services.

Methods

This multicentre, single-blinded, three-group parallel cluster randomised controlled trial with concealed allocation was conducted in Australian and New Zealand hospitals between February 2018 and January 2020. Clustering and randomisation took place at the organisation-level where weekend allied health staffing decisions were made (e.g. network of hospitals or single hospital). Three conditions were compared over a 12-month period: 1) usual practice control; 2) written evidence-based practice recommendations; and 3) access to a webinar-based knowledge broker in addition to the recommendations. The primary outcome was the alignment of weekend allied health provision with practice recommendations. The secondary outcome was hospital length of stay.

Results

A total of 45 clusters (n=833 wards) were randomised to either control (n=15), recommendation (n=16) or knowledge broker (n=14) conditions. Four (9%) did not provide follow up data. No significant effect was found with either implementation strategy for the primary outcome at the cluster-level or ward-level. There was no significant effect between strategies for the secondary outcomes at cluster-level. None of the control or knowledge broker clusters transitioned to partial or full alignment with the recommendations. Three (20%) of the clusters who only received the written recommendations transitioned from nonalignment to partial alignment.

Implications

This trial was unable to identify a difference between the knowledge broker strategy and dissemination of recommendations compared with usual practice for the promotion of evidence-informed resource allocation to inpatient weekend allied health services. Future research is needed to determine the interactions between different implementation strategies and healthcare contexts when translating evidence into healthcare practice.

Audit and feedback reduces musculoskeletal diagnostic imaging by high-requesting Australian general practitioners: A nation-wide cluster randomised factorial trial

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Background

Overuse of musculoskeletal diagnostic imaging is common in general practice and can lead to unnecessary care. Audit and feedback can improve professional practice but few trials have evaluated its effectiveness for this problem.

Objectives

To evaluate the effectiveness of audit-feedback used at a national level for reducing requests for 11 commonly overused musculoskeletal imaging tests by high-requesting Australian GPs compared with no intervention control. A secondary objective was to evaluate which forms of audit-feedback are most effective.

Methods

Australian general practices with at least one high-requesting GP were randomised to either no intervention control or individualised audit-feedback. Audit-feedback factors were (a) frequency of feedback (one versus two occasions) and (b) enhanced visual display (yes/no). The primary outcome was rate of requests for 11 targeted musculoskeletal imaging tests over 12 months. All primary analyses were intention-to-treat by statisticians blinded to group allocation.

Results

On 8 Nov 2019, 3,819 GPs from 2,271 practices were randomised with 3,660 GPs included in the primary analysis. Audit-feedback reduced the overall rate of musculoskeletal imaging compared with control at 6, 12, and 18 months: adjusted mean difference (MD) -2.81 (95% CI -3.36 to -2.26, $p<0.001$), -2.66 (95% CI -3.24 to -2.07, $p<0.001$) and -2.11 (95% CI -2.63 to -1.58, $p<0.001$) respectively. Feedback on two occasions was more effective than one occasion over 18 months; enhanced display was more effective than standard over 6 and 12 months but not 18 months. An estimated 47,318 (95% CI 35,562 to 59,074) fewer scans were requested due to the audit-feedback intervention.

Key messages

A relatively light-touch intervention that provides performance data to high-requesting GPs reduced musculoskeletal imaging at a national scale. Feedback on two occasions and use of a simple display enhancement slightly increased effects.

This trial was a collaboration between the Australian Government Department of Health and WiserHealthcare.

Staff and senior managers perspectives of implementing a service redesign model, using targeted care navigation and a readmission risk prediction algorithm, for reducing hospital readmission

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Introduction

Hospital readmissions are expensive and many are preventable. In 2016, as part of the HealthLinks initiative, the Victorian Department of Health provided a readmission risk algorithm to Health Services. In response, one of the metropolitan Health Services implemented a pilot program delivering targeted care navigation (TCN) to patients identified, using the algorithm, as being at risk of unplanned hospital presentations. We aimed to evaluate staff and managers' perceptions of the program and factors influencing implementation.

Methods

Staff and senior managers directly involved in the project, were invited to participate in semi-structured interviews to elicit information on barriers and facilitators to implementation. Interviews were transcribed verbatim and coded using NVivo12. Transcripts were analysed thematically using Ritchie and Spencer's five-stage framework. Themes were mapped to the constructs of the integrated Promoting Action on Research Implementation in Health Services (i-PARiHS) framework (facilitation, recipients, innovation and context) to identify factors that may influence broader implementation.

Results

All staff involved in implementation participated and interviews conducted in August 2019 with one staff member and five managers including director level. The following themes: capacity and capability, health service culture, leadership, resources and perceived patient experience were identified. TCN was believed to be an effective model of care when supported by the algorithm (innovation); with alignment of professional values and good quality of care (recipients). With reference to context interviewees felt that internal and external sectors of the health systems were not equally embraced, and awareness of multidisciplinary community based care was inconsistent. Lack of prioritisation and funding; unclear expectations and unsophisticated IT limited communication and services engagement. The i-PARiHS framework highlighted that facilitation is key to future sustainable implementation.

Implications

Our findings highlight the influence of context at multiple levels, demonstrating the complexity of implementing Health Department driven models of care within a local context.

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Exploring the determinants of evidence use within Australian clinical network stewardship models

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Background

The Australian health care system is characterised as fragmented, with variable integration between participants, and a perception that decisions do not always reflect “the evidence”.

State Government clinical networks seek to pursue system improvements through the empowerment and stewardship of multidisciplinary clinicians, consumers, and stakeholders. “Evidence use” is considered essential. This raises questions as to what evidence is, and what does evidence use involve when Australian clinical networks explore system level, rather than clinical practice level priorties.

Method

Research to understand the determinants of clinical network evidence use involved national qualitative study (interview: n=8) and case study analysis of three different Victorian clinical networks. Mixed method case study analysis comprised document review, interview (n=40), observation (n=3), and Q methodology study to identify common viewpoints (n=26).

Q methodology explored the influence of i) network management, ii) network participation, iii) the evidence base, and iv) functional processes. Participants rank-ordered 40 clustered text statements and provided explanatory information on selection. Data analysis was conducted using PQMethod software (statistical method: principal components analysis with varimax rotation, automatic and manual flagging (P=<0.01), Pearson coefficient, and eigenvalue cut-off >1.0). Salient viewpoints explaining determinants of evidence use within clinical networks were interpreted.

Findings

Four prominent viewpoints of the key determinants of evidence use were identified (providing 45% explanatory variance). Viewpoints understood evidence stewardship as a form of good governance and the means for the clinical network to influence influential leaders. Evidence adoption was inextricably linked to system improvement, reliant on robust evidence generation and implementation processes. Findings are the basis for integrated theory building.

Implications

Understanding of the key factors which influence the use of evidence, and realist exploration using Q methodology are the unique contributions of this research. Recommendations to optimise the fidelity of clinical network leadership and health system stewardship approaches will be presented.

Informed Financial Consent Processes in Cancer Services: Implementation recommendations from early adopters.

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Background

Despite the known negative psychological and physical impacts financial toxicity has on people affected by cancer, a gap remains in the establishment of standard processes to ensure that informed financial consent (IFC) is obtained within cancer care settings. Through implementation process mapping and thematic analysis, this study aimed to understand existing pathways of established IFC processes to develop general recommendations as to how IFC can be implemented in various cancer clinical care settings.

Population

Australian medical professionals who had previously demonstrated or discussed having some level of IFC processes already in place, labelling them 'early adopters'.

Methods

Semi-structured interviews were conducted with participants. The Consolidated Framework for Implementation Research informed the development of interview questions. An aggregated process map of recommendations as to instances where IFC discussion and strategies should be deployed was designed through deductive thematic analysis.

Results

Ten medical professionals participated in interviews. IFC processes varied across professional speciality (i.e., general practice, surgery, radiation oncology and medical oncology) and healthcare settings (i.e., public and private). Individualised process maps were established and confirmed by the different participants. Key components of the individual IFC process maps were characterised and led to the development of an aggregated process map. Key components include; establishment of centralised points of contact, consolidated information delivery, reiteration and follow-up. Identified themes from the interviews were grouped into barriers and enablers to the delivery of IFC. The themes and aggregated process map provide recommendations on essential practices to achieving minimum standards of IFC are met.

Implications

The study produced examples of practical actions and recommendations for healthcare professionals and services to consider when adopting IFC processes. Further work could consider implementation strategies and outcomes to inform the integration and scale-up of IFC processes.

Which strategies support the effective use of clinical practice guidelines and clinical quality registry data to inform health service delivery?

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Background
Empirical evidence suggests Clinical Practice Guidelines and Clinical Quality Registries are not being used to their full potential, leaving health service managers, clinicians and other health care providers without clear guidance on how best to utilise data and insights from these sources to improve healthcare delivery. This lack of uptake of existing research knowledge represents low value to the health care system and needs to change.

Methods
Five electronic databases (Medline, Embase, CINAHL, Cochrane Central and Cochrane Database of Systematic Reviews) were systematically searched. Included studies were published between 2000-2020, reported on the attributes and/or impact of Clinical Practice Guidelines and Clinical Quality Registries, with specific information on how the evidence or data informed health service delivery.

Results
Twenty-six articles including one randomised controlled trial, eight before-and-after studies, eight case studies/reviews, five survey and four interview studies, covering a wide range of medical conditions and conducted in the United States of America, Australia and Europe were identified. Five complementary strategies were outlined to maximise the likelihood of best practice health service delivery: 1. Feedback and transparency; 2. Intervention sustainability; 3. Clinical Practice Guideline adherence; 4. Productive partnerships; and 5. Whole-of-team approach.

Implications
These five strategies, used in context-relevant combinations, are most likely to support the application of existing high quality data, adding value to health service delivery. The review highlighted the limitations of study design in opportunistic registry studies that do not produce clear, usable evidence to guide changes to health service implementation practices. Recommendations include further exploration of innovative methodologies such as implementation laboratories and hybrid designs, improved coordination of national registries and exploration of the role of incentives to encourage publication and dissemination of successful strategies. Examples of these will be discussed in the presentation.

Barriers and facilitators to integrating intravenous iron for anaemic pregnant women in the Malawian health care system using the Consolidated Framework for Implementation Research

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Introduction/Setting

Anaemia in pregnancy is commonly due to iron deficiency, with antenatal iron supplementation being critical to maternal and child health (MCH) outcomes. In low-and middle-income countries, women receive oral iron; however, access and adherence is limited. Modern intravenous (IV) iron products are available in high-income countries and provide an opportunity to deliver iron in a single infusion during pregnancy. In Malawi, a study will be conducted to assess the effectiveness of IV iron vs standard care on MCH outcomes. If effective, identifying potential barriers and facilitators for delivering and upscaling IV iron within the Malawi health care system will be crucial.

Method

Semi-structured interviews were conducted with policymakers (n=9), healthcare providers (n=7), health services managers (n=5), and non-governmental organisations (n=5) in Malawi. Interviews were audio-recorded and transcribed verbatim. Qualitative data were thematically analysed and mapped to the Consolidated Framework for Implementation Research (CFIR) constructs.

Findings

Barriers arose from 4 constructs: 1) knowledge and beliefs about the intervention (e.g., misconceptions among the public), 2) available resources (e.g., shortage of equipment), 3) access to knowledge and information (e.g., on anaemia), and 4) planning (e.g., no systematic follow-up of patients). Facilitators were related to 3 constructs – 1) evidence strength and quality (e.g., effectiveness of IV iron), 2) opinion leaders (e.g., Reproductive Health Directorate staff), and 3) external change agents (e.g., White Ribbon Alliance).

Implications

Delivery and upscaling of IV iron intervention into routine ANC will require improving knowledge of IV iron and anaemia among the public and healthcare providers and addressing resource constraints. Further, it will require capitalising on facilitators, such as evidence on the effectiveness of IV iron. This study will provide a roadmap for policymakers and healthcare organisations, including WHO, about how IV iron in pregnancy could be successfully implemented in a country located in sub-Sahara Africa.

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Psychosocial wellbeing of hospital clinical staff during the COVID-19 pandemic: a longitudinal study

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Background

Internationally, hospital clinical staff report poor psychosocial wellbeing associated with the COVID-19 pandemic. Few studies have reported data at more than one time point. The aim was to assess the psychosocial wellbeing of Australian hospital clinical staff at two time points in 2020.

Setting

A large, public health service in metropolitan Melbourne.

Methods

Two identical, anonymous, online, cross-sectional surveys were completed by nurses/midwives, doctors and allied health staff in May-June and October-December 2020. The Depression, Anxiety and Stress Scale (DASS-21) assessed psychological wellbeing in the past week. Study specific questions (Likert-scales) assessed COVID-19 concerns and work impacts.

Results

Surveys were completed by 638 (time point 1) and 358 (time point 2) staff members. There were no significant demographic differences between cohorts. Mean scores on all DASS-21 subscales were statistically significantly higher than normative data (all $P < 0.01$); Depression, Anxiety and Stress scores were significantly higher during the second survey ($P < 0.01$). The proportion of participants scoring in the moderate to extremely severe ranges increased significantly for Depression (14% VS 22%, $P<0.01$) and Stress (14% vs 20%, $P < 0.05$); the increase for Anxiety was not significant (12% vs 17%, $P>0.05$). In both surveys, staff were most concerned about health risks to family members. Both positive (e.g. a learning experience) and negative (e.g. risk of getting COVID-19) impacts were reported. Concerns and perceived impacts increased significantly between surveys regarding colleagues having COVID-19, perceived stress, increased workload, new work tasks and conflict among colleagues (all $P<0.01$).

Implications

The second wave of the COVID-19 pandemic may have compounded the effects of the first wave among healthcare workers. Sustained organisational and personal support is likely to be required even when the immediate COVID-19 concerns and impacts resolve, to assist staff in overcoming psychological symptoms.

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A novel method to engage clinicians and policy makers longitudinally during the COVID-19 pandemic.

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Introduction

General practice has provided front-line healthcare during the COVID-19 pandemic. Despite Australasia's relatively few COVID-19 infections, front-line healthcare workers have reported stress and burnout like that of more severely impacted countries. Conventional methods exploring experiences of healthcare professionals have been inadequate to reflect the evolving pandemic context. This study used a novel longitudinal method to rapidly report experiences during the pandemic.

Population

General practitioners, practice managers, and practice nurses in Australia and New Zealand (NZ).

Methods

Recurrent online cross-sectional surveys were conducted using both static and dynamic questions. Static questions examined changes over time in practice strain, stressors, consultation formats, and COVID-19 management. Dynamic questions examined emergent issues at specific time points. Rapid analysis informed sequential, time specific summaries covering both continuing and emergent issues. Results from Australia span 14 surveys from May-2020 to May-2021. Results from NZ span 11 surveys from May-2020 to February-2021. Questions in Australia and NZ aligned when possible. Surveys were open for 1 week and analysis completed within 2 weeks of survey close.

Results

Unique responses from 612 Australian and 586 NZ were recorded. Proportions of participants completing surveys at more than one time point in Australia and NZ was 18% and 66%, respectively. Results summaries are published and were shared with healthcare organisations and government to inform policy decisions. Over time, COVID-19 has placed moderate to high strain on general practice, and a clear story of preparation, response and recovery is emerging.

Conclusions

This method supported immediate communication of time-critical experiences in general practice, while also informing an evolving meta-story. Sequential cross-sectional data collection rather than longitudinal time-series reduced participant burden by allowing flexible engagement in response to clinical and social context. Timely recurrent cross-sectional surveys play a useful role in representing and engaging communities during times of uncertainty or rapid change.

Clinical supervision of students in rural healthcare settings at the onset of the COVID-19 pandemic: supervisor perspectives

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Background

The COVID-19 pandemic has caused significant disruptions to healthcare student placements worldwide, including already challenged rural areas in Australia. While accounts are emerging of student experiences in larger centers and from a student perspective, there remains a need for in-depth exploration of student supervisor experiences in rural areas at the onset of the pandemic. This interview study was conducted across four rural health services in Queensland to address this gap.

Method

Individual, semi-structured interviews were conducted with healthcare workers from ten health professions (including allied health, medicine, and nursing) who were either direct student supervisors or in roles supporting student supervisors. All interviews were transcribed verbatim and de-identified. Reflexive thematic analysis was used to analyse data and develop themes. Multiple measures were employed to enhance the study's trustworthiness (e.g. use of reflexivity, an iterative approach, information richness, co-analysis, and triangulation of data by two researchers). All relevant ethics and organisational approvals were obtained.

Findings

Participants' experience (n=23) in their respective professions ranged from eight to 48 years and they had been in their current role anywhere between three months and 17 years. Four themes were developed, namely compounding stress, negative impacts on student learning, opportunity to flex and innovate, and targeted transitioning support strategies. The findings indicate that student supervisors at the onset of the pandemic experienced high levels of stress and wellbeing concerns.

Implications

This study sheds light on the importance of supporting student supervisors in rural areas, so that they can continue supervising students within well-supported environments. There is also a need for implementing targeted support strategies for new graduates whose placements were impacted by the pandemic. This is not only essential for supporting the rural healthcare workforce but is also imperative for addressing inequalities to healthcare access experienced in rural communities.

"Some days you wanted to sit and sort of rock in your chair": The occupational and personal impact of COVID-19 on Australian, hospital-based nursing and midwifery educators

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Background
COVID-19 has had a significant impact on nurses and midwives. As yet, there is little evidence about the impact of the pandemic on hospital-based nursing and midwifery educators. The aim of this study was to describe the occupational and personal impact of COVID-19 on Australian nursing and midwifery educators.

Population
All nursing and midwifery educators employed at two metropolitan health services in Melbourne, Australia.

Method
Data were collected by semi-structured interviews conducted on Zoom (July–August 2020). Participants were asked about their experiences and perspectives of the COVID-19 pandemic including changes to their work role, barriers and enablers to implementing and providing education programs, positive aspects, and changes which may be sustained after the pandemic. Interviews were recorded and transcribed verbatim. Data were analysed thematically using NVivo v12.

Results
Twenty- seven nursing and midwifery educators participated; all reported that COVID-19 had increased their workload substantially. New COVID-19 education programs had to be developed rapidly and many delivered online. Lack of appropriate technology and technological skills, constant changes to COVID-19 guidelines, redeployment to clinical roles, and time spent managing overwhelmed and anxious staff members presented significant barriers to modifying existing programs and implementing new ones. Good communication and support from management and colleagues were reported to facilitate good provision of education. Participants also reported the negative impact of COVID-19 and related work changes on their mental health. The use of technology such as Zoom was seen as a "silver lining", making education more accessible to nurses and midwives. Online education, virtual meetings and working at home were perceived as practices that would be continued post-pandemic.

Implications
The COVID-19 pandemic has had a considerable impact on nursing and midwifery educators. Educators would benefit from continued and further occupational and psychosocial support during the current pandemic and future adverse events.

Student-led Medication Histories in Hospitals during the COVID-19 Pandemic: Analysis of student and preceptor feedback.

Miss Linda Do[1,2], Dr Carl Schneider[1], Dr Jonathan Penm[1], Professor Asad Patanwala[1,3], Ms Rosemary Burke[2,3,4,5,6], Mr Russell Levy[3,5], Mr Garry Soo[4,6], Mrs Jocelyn Ong[2], Associate Professor Rebekah Moles[1]

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Introduction

Taking a medication history is an Entrustable Professional Activity (EPA) pharmacy students can perform as part of the Medication Reconciliation (MedRec) process. Since 2018, an annual student-led MedRec program was initiated across various metropolitan hospitals. However, the COVID-19 pandemic in 2020-2021 impacted pharmacy workflows forcing changes to the program. This study aims to evaluate the feasibility of the student-led MedRec in hospitals during the COVID-19 pandemic from the perspective of pharmacy students and their pharmacist preceptors.

Population/SettingFinal-year pharmacy students and pharmacist preceptors in hospitals.

Method

In 2020-2021, 34 students volunteered to take medication histories across 5 participating hospitals. Focus groups/interviews were held with students and preceptors independently and data gathered were analysed for emergent themes.

Results

The 34 students recorded medication histories for about 400 patients. A total of 9 focus groups (n=27 students, n=14 pharmacists) and 14 individual interviews (n=3 students, n=11 pharmacists) were conducted. Emergent themes included: student preparedness to perform tasks; real-life complexities; and overwhelming clinical load for preceptors. Students felt prepared and gathered confidence over time. Preceptors believed that students were trusted after 4-6 weeks of experience. Students encountered challenges as they adapt to "real-life" practice such as, communication barriers in patient interactions. Adhering to COVID-19 pandemic precautions, like wearing masks and social distancing, were considered as only minimally burdensome to students. Some preceptors believed that reviewing students' medication histories was time-consuming often compromising workflows.

Implication

Despite the COVID-19 pandemic, pharmacy students were able to provide a clinical service to hospital inpatients by taking medication histories. This positive outcome suggests the student-led MedRec program (and potentially other EPAs) are feasible. Preceptors and students may require a structured approach to setting realistic goals together; allowing preceptors to better manage their workload whilst maintaining ongoing support for students.

Family experiences and perceptions of intensive care and communication during the COVID 19 pandemic

Dr Robin Digby[1,2], Professor Elizabeth Manias[1], Dr Kimberly Haines[3], Dr Judit Orosz[2], Dr Joshua Ihle[2], Professor Tracey Bucknail[1,2]

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Introduction

Families play a pivotal role, providing emotional support, surrogate decision-making and patient advocacy for hospitalised patients. In March 2020, during the COVID-19 pandemic, hospital visiting was severely curtailed to limit the spread of infection, significantly challenging family participation in patient care and recovery in the intensive care unit (ICU). This study explored the experiences of ICU families to understand the perceived impact of the restrictions on their role.

Method

This qualitative study used telephone interviews, conducted in May-December 2020, with 20 family members of patients in the ICU of a major teaching hospital in Melbourne, Australia. Data were audio recorded, transcribed verbatim and thematically analysed.

Findings

Three major themes were found.

1) Impact of visiting restrictions

The severe visiting restrictions caused intense distress for some families including children who were unable to visit a critically ill parent. It was especially difficult for rural families who were many hours from the hospital and subject to the same restrictions.

2) Family experiences of communication

Communication between families and staff was by phone or telehealth. Every contact was highly valued by families. Frequency of communication was variable and dependent on individual staff priorities. Restrictions were not reported to impact family involvement in decision-making.

3) Care and support:

All participants reported satisfaction with the care their relative received in ICU. Inflexible visiting restrictions were highly criticised by participants.

Key message

Extreme distress requires a compassionate response. However, during the pandemic when infection control measures used to limit the spread of infection took precedence, person-centred care came under threat. The primary reason for restricting visitors was to limit the spread of the virus to vulnerable patients and essential staff. Unfortunately there were unintended consequences for family and patients, which must be addressed. Individual circumstances must be considered in order to maintain family-centred care.

Allied health professionals experiences working in residential aged care during the COVID-19 pandemic: Interview and survey

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Background
Service delivery in Australian residential aged care (RAC) facilities has been impacted by the COVID-19 pandemic due to outbreaks of the virus and public health containment measures. Industry reports suggest that allied health (AH) services – which are essential to promoting resident wellbeing and function – were paused or restricted during the pandemic. These reports have not yet been explored in Australian research.

Method
A mixed methods study was conducted to examine AH experiences and service delivery in RAC before and during the pandemic. A survey of AH professionals and assistants aimed to capture characteristics of AH service delivery, as well as perceived impact of the pandemic on care quality and resident outcomes. Twenty-minute semi-structured interviews explored these views in depth. Data were collected between February-April 2022.

Results
In total 104 and 16 AH workers completed the survey and interview respectively. Most survey participants experienced a pause in service delivery during the pandemic (52%) and believed that that the pandemic negatively impacted the quality of AH care delivered to residents (79%). Responses from interview participants were classified into four themes: a sector under stress, COVID-19 as a pressure cooker event, disrupted service delivery even past the peak of COVID-19 cases, and future reform. Interview participants focused on how the pandemic heightened pre-existing perceived flaws in AH delivery such as reactive care delivered by contracted workers, low funding, and the perception that AH is not essential. Nearly all survey (95%) and interview (100%) participants believed that resident outcomes worsened during the pandemic; participants attributed this to multiple factors including facility lockdowns, staff shortages, and reduced AH and nursing service activity.

Implications
Greater support is required to minimise service disruptions in RAC enabling providers to ensure service levels and care quality can be maintained.

Session 2F: Economic evaluation

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Methods for equity-informative economic evaluation of childhood obesity interventions: A demonstration

Ms. Anagha Killedar[1], Dr. Thomas Lung[2], A/Prof Alison Hayes[1]
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Introduction

Equity-informative economic evaluation methodology has progressed in recent years. These methods, however, have rarely been used for interventions addressing childhood obesity, despite distinct socioeconomic inequalities. Our objective was to demonstrate how these methods could be applied to childhood obesity interventions.

Setting

We used an Australian health funder perspective.

Method

We conducted a modelled distributional cost-effectiveness analysis of three obesity prevention interventions in children. For each intervention, socioeconomic position (SEP)-specific effect sizes and costs were applied to a cohort of Australian children. Using a purpose-built microsimulation model we simulated SEP-specific BMI trajectories, healthcare costs and quality-adjusted life years (QALYs) from age 4 to 17 years for the three intervention cohorts and a control cohort. We examined the distribution of BMI, weight status and QALYs across SEP in each of these cohorts. Accounting for opportunity costs, the net health benefit and equity impact, in QALYs, were determined. Finally, we conducted scenario analyses to test key assumptions.

Results

Two interventions generated a net health benefit and improved equity (a ‘win-win’), and one caused a net health loss and worsened equity (a ‘lose-lose’). An infant sleep intervention reduced the inequality in overweight and obesity by 2%, and, after accounting for opportunity costs, conferred a net health benefit of 0.006 QALYs and inequality reduction of 0.002 QALYs. Assumptions around health system marginal productivity and the distribution of opportunity costs influenced interventions with the highest incremental costs the most. Using SEP-specific effect sizes was also highly influential on equity impact estimates.

Implications

The demonstrated method could be used to evaluate and compare childhood obesity interventions for their efficiency and equity impact using a common framework. However, further work is needed to establish the marginal productivity and distribution of opportunity costs in the Australian health system, and to generate reliable estimates of SEP-specific intervention effect sizes.

Economic evaluations of telehealth programs: why perspective matters

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Introduction

Telehealth initiatives are often assumed to result in lower costs than face-to-face models of care. However, these assumptions are typically based on simplistic, silo-based costing approaches that fail to account for the full range of costs and benefits accrued. There is a need for economic evaluations of telehealth initiatives to account for all relevant perspectives, so that funding decisions can be based on full information. This presentation will outline a case study illustrating the impact that alternative costing perspectives can have on evaluation findings.

Methods

The TeleBurns Service is a metropolitan based service that provides remote allied health follow-up care for patients post-burn injury. An economic evaluation of the service was conducted that adopted five costing perspectives: metropolitan hospital; remote-end health services; state health funder; patients'; and societal. Data was collected prospectively over the 20-month period from April 2019 to December 2020.

Results

The TeleBurns service delivered 623 consultations that were attended by 201 unique patients. An estimated patient travel distance of 522,197km was avoided, equating to an average saving of $731 in subsidised travel expenses per patient, with an additional $370 saved in patient out of pocket costs. Other than an initial investment in telehealth equipment, there was no change in the cost per appointment at the metropolitan hospital. Remote health services incurred additional costs of labour and consumables for consultations where a remote-end provider was required, which attracted reimbursement from the health care funder. Remote-end health services accrued savings from reduced patient travel subsidy payments.

Implications

When analysed separately, costs and benefits of the telehealth model accrued disproportionately across multiple stakeholders. By quantifying and communicating the full set of cost implications to decision makers, the program was able to successfully negotiate recurrent funding at the metropolitan hospital with ongoing support from all 15 remote end health services.

Analysis of the cost-effectiveness of a home-based care program for risk stratified febrile neutropenia in children with cancer

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Introduction

Despite the increasing use of clinical pathways in oncology care, there is paucity of studies evaluating their impact on patient outcomes and in delivering high-value care. This is particularly relevant in the management of febrile neutropenia (FN) in children with cancer. Home-based treatment of low-risk FN with oral or intravenous antibiotics is safe and effective, however there are limited data on the economic impact of this model of care. We evaluated the costs, benefits and cost-effectiveness of implementing this novel pathway.

Method

A decision analytic model was constructed to compare costs and outcomes of the low-risk FN program with usual in-hospital treatment with intravenous antibiotics. The program included a clinical decision rule to identify patients at low-risk for severe infection and home-based eligibility criteria using disease, chemotherapy and patient-level factors. Health outcomes (quality-of-life) and probabilities of FN risk classification and home-based eligibility were based on prospectively collected data from patients. Patient-level hospitalisation costs were extracted from hospital records. Threshold, deterministic and probabilistic sensitivity analyses were performed.

Results

The mean healthcare cost of home-based FN treatment was A$7,765 per patient compared to A$20,396 for in-hospital treatment (difference A$12,632 (95%CI,12,496-12,767)). Overall, the low-risk FN program was the dominant strategy, more effective (0.0011 QALY (95%CI,0.0011-0.0012)) and less costly. For the program to remain cost-effective, the proportion of low-risk patients assessed as eligible to receive home-based FN care would need to remain above 37% and those actually transferred home to the program would need to remain above 11%.

Key message

Compared to in-hospital FN care, the low-risk FN program is cost-effective, with savings arising from the cheaper cost of caring for children at home. The potential cost-savings from implementation of the program without adverse impact on patient outcomes provides a strong case justifying implementation and evidence to support continuity of the program.

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Cost-effectiveness of constraint-induced movement therapy implementation in neurorehabilitation: The ACTIveARM Project

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Background

Constraint-induced movement therapy (CIMT) is a recommended intervention for arm recovery following stroke; however, delivery in practice remains rare.

Purpose

To investigate the costs and cost-effectiveness of CIMT delivery, and the use of a CIMT implementation package designed to improve CIMT uptake by therapists in Sydney, Australia.

Methods

This economic evaluation was conducted with a subset of CIMT programs (n=20) within a mixed methods implementation study (ACTIveARM). Costs of the CIMT implementation package and publicly-funded CIMT were calculated using a bottom-up approach. A cost-effectiveness analysis was conducted, using decision analytic modelling. We compared the uptake and outcomes of CIMT participants from health services that had received a CIMT implementation package, with outcomes for those that did not receive the implementation package and received standard therapy. A healthcare system perspective was used in the model, over a 3-week time horizon (the average timeframe of a CIMT program). Inputs were derived from the ACTIveARM study and relevant literature. The Action Research Arm Test was used to measure arm outcomes. Sensitivity analyses assessed the impact of improving CIMT uptake, scale-up of the implementation package and resource adjustment, including a ‘best-case’ scenario analysis.

Results

The total cost of delivering the implementation package to nine teams was $110,336.43AUD over 18 months. The mean cost of delivering individual CIMT was $1,233.38AUD per participant, and $936.03AUD per participant for group-based programs.

The incremental cost-effectiveness ratio (ICER) of individual CIMT was $8,052AUD per additional person achieving meaningful improvement in arm function, and $6,045AUD for group-based CIMT. The ICER was most sensitive to resource adjustments. In the ‘best-case’ scenario, the ICER for both individual and group-based CIMT was $245AUD per additional person achieving meaningful functional change.

Implications

Therapists improved CIMT uptake and delivery with the support of an implementation package, resulting in potentially cost-effective improvements in arm function.

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'The tyranny of distance': experiences of pathways to diagnosis and treatment of head and neck cancer in NSW

Dr Rebecca L Venchiarutti[1,2]
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Being diagnosed and treated for cancer is a daunting experience and patients in country NSW often need to travel long distances for cancer management. This is particularly true for head and neck cancer (HNC), which is ideally treated in high-volume hospitals in major cities. My thesis examined how patients access HNC services, how long they wait to be diagnosed and treated, and any barriers they face to early diagnosis, with a particular focus on differential experiences of regional and metropolitan patients.

To determine the 'lay of the land', we conducted a retrospective cohort study, which demonstrated that while patients in regional NSW waited longer to start treatment, this didn't translate into any survival differences. Interestingly adherence to optimal guidelines for timely HNC management was generally poor regardless of residence. We repeated this analysis prospectively in a study of 100 patients with HNC. While we did observe some improvements, regional patients still wait significantly longer to start treatment, which was mirrored in a survey of GPs that we conducted.

An important finding was that patients with higher levels of health literacy tended to be diagnosed more quickly compared to those with limited health literacy, and they also reported better coordination of cancer care. These concepts also came out in interviews with patients and their carers – leveraging social capital, being accommodated by health services, and availability of services were seen as key facilitators to early diagnosis, while lengthy travel or distance to services and inadequate interpretation of symptoms by healthcare practitioners were seen as barriers.

The findings from my thesis support the need for health-system approaches to improving access to HNC services to improve timely diagnosis and treatment. Education strategies for patients and healthcare professionals, in addition to streamlined pathways to diagnosis and treatment, may help reduce disparities regardless of residence.

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Studies Within A Trial: optimising trial processes and generating translational gains in a randomised controlled trial of patient-led surveillance for new or recurrent melanoma.

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Randomised controlled trials (RCTs) underpin the practice of evidence-based medicine, however decisions about trial processes such as participant recruitment, retention, response to outcome measurement and adherence to the intervention have been largely made in an ad hoc manner using trial and error. The paucity of evidence on optimum design of trial processes results in wasted time and resources as well as inefficiencies (for example loss of statistical power resulting from missing data due to sub-optimal retention) and potentially biased results (for example bias to the null from suboptimal adherence to the intervention).

Studies Within a Trial (SWATs) have been developed to address the need to both improve trial efficiency and increase the evidence base for trial process decisions. Using the setting of an NHMRC funded melanoma surveillance RCT (MEL-SELF), my thesis aims to investigate whether SWATs may be used to improve trial processes for the parent trial, generate evidence to guide the conduct of future melanoma trials, and additionally generate evidence to support the translation of trial evidence into clinical practice and policy.

My thesis will comprise: (i) a scoping review to identify and collate methods that have been used to improve participant recruitment, retention, response, and intervention adherence in RCTs of early detection populations at high risk of melanoma (ii) a series of SWATs nested within the MEL-SELF RCT aimed at improving participant recruitment, retention, response and intervention adherence (iii) a qualitative study to identify barriers to and facilitators of the implementation of SWATs (iv) development of a model for “pragmatic” SWATs that aim to both improve trial processes and future translation, using one or more of the SWATs from (ii) as case examples. Implementing SWATs in health service research may be an important innovation to increase value in RCTs and increase resilience when operational challenges are faced.

Identifying and addressing issues in access to health services among people using opioids for chronic pain

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Context

One in five Australians experiences pain lasting more than three months, with huge personal and societal impacts. Effective management is essential to improve outcomes and quality of life, and to enable people living with pain to engage in everyday, social, and employment activities. Long-term treatment with opioid medicines is common, despite limited evidence demonstrating effectiveness and well-known risks. Multidisciplinary care, including physical and psychological therapies, can reduce pain and increase quality of life. Consequently, most treatment guidelines recommend multidisciplinary treatment of chronic pain, with avoidance of opioids as first-line therapy. But what does this look like in practice? The reality is that patterns and predictors of treatment use by Australians living with chronic pain are not well known. Importantly, the experiences of Australians living with pain, including those already using opioids, are also unknown, though international evidence suggests people with chronic pain experience many challenges accessing care.

Methods

This PhD is using quantitative and qualitative methodologies to report on patterns of health service utilisation and the experiences of Australian patients. These include: a) a five-year prospective cohort study of 1,514 Australians using opioids for chronic pain; b) qualitative interviews with Australians living with pain to understand the experience of seeking treatment for pain, and the experience of being prescribed opioids during the so-called “opioid crisis”; and c) a large linkage project including all adults prescribed opioids in New South Wales (NSW) on the Pharmaceutical Benefits Scheme from 2002 to 2018, linked to Medicare Benefits Scheme, hospital admission, and emergency department presentation data.

Implications

In this mixed-methods thesis, I report on patterns of health service use and the experiences of Australian patients. Findings will inform policy makers, clinicians, and public health experts, guiding future service planning to ensure Australians living with pain receive appropriate, evidence-based care.

Co-designing patient engagement strategies to improve culturally and linguistically diverse patient safety in Australian Cancer services.

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Introduction

Effective patient engagement is recognised internationally as a strategy to enhance patient safety. Techniques that have been developed to enhance patient engagement specifically in relation to their safety include questioning, challenging health professionals and encouraging patient reports of errors in their care. Existing techniques may not be suitable for culturally and linguistically diverse (CALD) consumers, who are frequently exposed to safety events in their care. Yet to date techniques have not been developed for (and with) CALD consumers to enhance their safety.

Population/Setting

CALD consumers accessing cancer services at the participating sites in New South Wales (NSW).

Methods

This is a multi-method sequential study that includes systematic review, medical record review, document analysis and experience-based co-design (EBCD).

Lessons Learned

Preliminary findings suggests that: (a) CALD patients are at risk of increased number and type of safety events with lack of socio-cultural data collection and consumer engagement increasing the risk to safety events among other factors; (b) medication errors are the most common types of safety events experienced by CALD patients accessing cancer services with some association noted between number of safety events and CALD indicators; and (c) recent frameworks recognised increased need for engagement with CALD consumers in decision-making; however, the details and mechanisms of how to achieve this were limited. Next step is to use EBCD approach to develop strategies for consumer engagement for patient safety in cancer services.

Implications

This project provides evidence to cancer services of the types of safety risks CALD consumers are exposed to and techniques that can be implemented within these services developed for and with their stakeholders

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Can physiotherapists include support for health behaviour change as part of a rehabilitation programme? A study in injured UK Armed Forces personnel.

Mr B Fisher[1,2]

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Introduction / background

Poor health behaviours reduce physical and mental fitness, increase body weight and excess body fat, increase musculoskeletal injury risk (MSKI), and the likelihood of military personnel becoming 'unfit for duty'. This adds to the complexity of healthcare and rehabilitation pathways.

The aim of this programme it to positively effect health behaviours in injured UK military personnel, to promote recovery and provide the foundations for future good health. Emerging evidenced links between poor lifestyle choices, obesity and adverse COVID-19 outcomes added urgency to this programme.

Method

Implementation of a quality improvement programme at UK military rehabilitation centres, through up-skilling healthcare practitioners (workforce training) to enable support for positive behaviour change in patients. This was achieved utilising a person-centred care approach, delivering brief interventions and provision of educational lectures and support material.

Results / Findings

Qualitative analysis of the implementation period demonstrates healthcare practitioners can deliver support for health behaviours within their practice, and this is well received by both patients and staff alike. Challenges include standardisation of delivery across large and diverse clinical teams, as well as acknowledging the wider system influences on patient health behaviour (food provision, work and social environment, policy environment).

The COVID19 pandemic occurred during the implementation period, requiring the development of online delivery of practitioner training, and telehealth support to patients.

Implications / Key messages

Implementation of a quality improvement programme to upskill healthcare practitioners to deliver support for healthier behaviours alongside normal MSK care is feasible, and well received by patients and practitioners.

Phase two of this research programme (currently underway) is the analysis of outcome data including health behaviour and MSKI outcome measures.

Exploring the determinants of evidence use within Australian clinical network stewardship models

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Background

The Australian health care system is characterised as fragmented, with variable integration between participants, and a perception that decisions do not always reflect “the evidence”. State Government clinical networks seek to pursue system improvements through the empowerment and stewardship of multidisciplinary clinicians, consumers, and stakeholders. “Evidence use” is considered essential. This raises questions as to what evidence is, and what does evidence use involve when Australian clinical networks explore system level, rather than clinical practice level priorities.

Method

Research to understand the determinants of clinical network evidence use involved national qualitative study (interview: n=8) and case study analysis of three different Victorian clinical networks. Mixed method case study analysis comprised document review, interview (n=40), observation (n=3), and Q methodology study to identify viewpoints (n=26).

Q methodology explored the influence of i) network management, ii) network participation, iii) the evidence base, and iv) functional processes. Participants rank-ordered 40 clustered text statements and provided explanatory information on selection. Data analysis was conducted using PQMethod software (statistical method: principal components analysis with varimax rotation, automatic and manual flagging ($P=<0.01$), Pearson coefficient, and eigenvalue cut-off >1.0). Salient viewpoints explaining the determinants of evidence use within clinical networks were interpreted.

Findings

Four prominent viewpoints of the key determinants of evidence use were identified (providing 45% explanatory variance). Viewpoints understood evidence stewardship as a form of good governance and the means for the clinical network to influence influential leaders. Evidence adoption was inextricably linked to system improvement, reliant on robust evidence generation and implementation processes. Findings are the basis for integrated theory building.

Implications

Understanding of the key factors which influence the use of evidence, and realist exploration using Q methodology are the unique contributions of this research. Recommendations to optimise the fidelity of clinical network leadership and health system stewardship approaches will be presented.

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The marriage of implementation science and health economics

Miss Thomasina Donovan[1], Prof Steven McPhail[1,2], Dr Bridget Abell[1], Dr Hannah Carter[1]
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Digital health innovations provide an opportunity to improve healthcare services by addressing healthcare challenges. However, technology can increase implementation complexity in an already complex hospital setting. Implementation science provides strategies to improve the pace and effectiveness of implementation by facilitating behaviour change for adoption.

While the implementation science literature has expanded rapidly over the past decade, the costs associated with implementation strategies are often overlooked. This can lead to an underestimation of the true cost of implementation, optimistic cost-effectiveness estimates and a disconnect between published evidence and public health decision making.

The paucity of literature around the cost of implementation may be explained in part by the lack of methodological guidance in this field. Increased availability of pragmatic tools and resources would likely improve the quality of evidence and reporting in future studies, as well as support real-world health service policy and planning.

The aim of this thesis is to develop an implementation costing tool to support future digital health implementation planning, policy, research and evaluation. Experts in implementation science, health economics and digital health will be recruited to participate in qualitative interviews and a modified Delphi panel to identify key areas of resource use and obtain consensus on how these may be pragmatically costed. The costing tool will then be piloted in a digital health setting and applied within a cost-effectiveness analysis. The outcomes of this thesis will assist decision makers in appropriately planning for resource use and costs associated with the implementation of their digital health initiatives. More broadly, it may contribute to increased reporting of implementation costs and an enhanced understanding of the importance of considering implementation costs in resource-constrained settings. Additionally, the transdisciplinary nature of the tool may facilitate collaboration between implementation scientists and health economists on future studies.

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Digital Health Solutions for Improving Outpatient Care Utilisation

Ms Shayma Mohammed Selim[1], Dr Hannah Carter[1], Professor Steven McPhail[1,2], Associate Professor Sanjeewa Kularatna[1]

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When a patient does not attend a scheduled healthcare appointment and does not cancel in advance, it leaves a vacant appointment slot that cannot be used or offered to others. Non-attendance at scheduled healthcare appointments wastes resources that could have been allocated to the provision of other healthcare services; in the United States, non-attendance has been estimated to cost US$150 billion per year. In addition to this, non-attendance can increase waiting list times, wastes staff time, and may be detrimental to a patient's health if they don't receive timely healthcare. Non-attendance is a money problem, a staff and resourcing problem, and a patient experience problem.

Finding ways to reduce non-attendance is challenging, but it is attainable. With the way in which consumers engage with healthcare systems changing, it opens the door to explore how the digitisation of healthcare information systems can help support better engagement with the healthcare system and improve outpatient care utilisation. My research looks at ways in which digital health systems can assist in the reduction of the impact of non-attendance at scheduled outpatient healthcare appointments relevant to the Australian healthcare system. My doctoral project aims to provide insights into the impact of non-attendance within Metro South Health (Australia's first digital health service and one of the largest in Queensland, serving approximately 23 per cent of Queensland's population), consumer preferences for interventions that may be used to reduce the impact of non-attendance, and the cost-effectiveness of these interventions.

Reducing the waitlist in outpatient clinics: Let's Renovate!

Ms Annie Lewis[1,2]
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"Hospital outpatient clinics are a policy renovator's delight" says Stephen Duckett. He's talking about long waiting lists which block best care.

We've been working to improve access to allied health in ambulatory care and our model reduces wait time by 34%.

Out data-driven model called STAT- Specific Timely Appointments for Triage- sets out a plan for clinic renovation. It works by matching supply with demand, but must be coupled with a full knock-down of the waitlist.

At Eastern Health, the epilepsy clinic had a big problem- 600 on the waitlist and referrals up to 8 years old.

If you had a seizure and waited months or years for an appointment, it would be terrible! A systematic review showed that early outpatient care means better long term seizure control.

My research question is: Can STAT be applied a an epilepsy clinic to reduce wait time?

We partnered with clinic staff and got busy renovating. We came in on a wrecking ball and obliterated the waitlist. The neurologists quarantined 10 new appointment spots per week and referrals were booked directly without using a waitlist.

Early results show waiting reduced from an average of 58 to 50 days but lower priority patients benefitted more as they were no longer constantly pushed down the queue.

If STAT provides the scaffolding for a full reno in this epilepsy clinic, it is possible that other outpatient clinics could do the same. This has implications for thousands of patients who would do better getting clinical intervention at the optimum time.

Best practice care in compensated Australian workers with low back pain.

Dr Michael Di Donato[1]

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Low back pain is the leading cause of disability worldwide. Despite a typically positive prognosis, low back pain can restrict participation in activities including work. An individual may access wage replacement or income support from an income support system such as workers' compensation or social security if they cannot work due to low back pain. In some cases, these systems may fund healthcare and rehabilitation services in addition to income support. Guidelines recommend against the use of routine diagnostic imaging in the absence of symptoms of serious pathology, and only a judicious use of opioid analgesics. However, the inappropriate use of both imaging and opioids for low back pain remains common. This thesis sought to understand how the interaction between income support and healthcare systems influences health service use and disability duration in compensated Australian workers with low back pain. A realist literature review was performed, demonstrating income support systems influence healthcare quality through funding restrictions, healthcare provider administrative burden, and allowing employers to select providers. A retrospective cohort study then revealed that the risk of a workers' compensation claim for low back pain by Australian workers was higher than a claim for limb fracture or non-specific limb conditions. Administrative claim and healthcare service data from five Australian workers' compensation systems were used to determine the prevalence of diagnostic imaging and its association with disability duration in Australian workers. Over half of workers with claims greater than two weeks' duration from five Australian states received diagnostic imaging. Healthcare service data was also utilised to determine the patterns of opioid dispensing in compensated Australian workers and the association with disability duration. Three opioid dispensing patterns were identified using group-based trajectory modelling. Workers dispensed opioids had significantly longer disability duration than those not dispensed opioids.

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Co-designed Telepractice service model implementation in the Australian Disability Sector

Cloe Benz[1], Associate Professor Richard Norman[1], Associate Professor Delia Hendrie[1], Mia Huntley[2], Professor Suzanne Robinson[1]
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Introduction
The use of telepractice in the disability sector, within Australia and internationally, escalated significantly since the advent of the coronavirus pandemic in March, 2020. A recent study reported an increase of telepractice experience for international allied health therapists from 4% pre pandemic to 75% during (Camden,2021). The aim of this study is to evaluate the implementation of a co-designed telepractice service model in the Australian disability sector; utilising service user experience during the initial pandemic implementation of telepractice to inform areas of focus.

Background
Crisis implementation of telepractice service models occurred with significant financial outlay for hardware and infrastructure; as well as substantial stress and pressure on therapists providing services to a vulnerable population during uncertain times. Sustained utilisation of telepractice service models has shown to be poor in areas where long term lockdown regulations were not implemented, such as Perth. Frequency of reported telepractice sessions remain low as reported by the study industry partner Rocky Bay, apart from during periods of enforced lockdown.

Method
An investigation of multi-system level barriers and facilitators to telepractice utilisation will be carried out under the Consolidated Framework for Implementation Research (CFIR), including a scoping review of available literature and a corroborating qualitative survey of telepractice models nationally. Furthermore, an in-depth analysis of service user, provider and organisation barriers and facilitators to implementation will be undertaken at the industry partner site, with a co-designed service reform output to be trialled in a pilot cohort prior to widespread implementation.

Implications
Implementation of the project supports a sustainable integration of telepractice as an accessible tailored model that considers the lived experience of peoples with a disability. With an adequate implementation strategy, the Australian disability sector policy directive of Choice and Control has the potential to design services which truly co-create value with users.

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Life-course modelling and economic evaluation of adolescent obesity

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Introduction/background and Population/setting

Adolescent obesity is a major public health issue in Australia, with 1 in 4 teenagers affected by overweight or obesity. To date interventions to prevent or treat obesity have largely targeted primary school age children, with there being limited investment in adolescents and young adults. This is concerning as recent Australian data has identified that prevalence of overweight and obesity in 18-24 year old's rose from 39% to 46% between 2014 and 2017 – the largest increase in any age group. A challenge in evaluating interventions is knowing how this will affect obesity progression in the long term. Economic modelling approaches can be valuable here in evaluating the effectiveness and cost effectiveness of interventions over a longer term and more policy-relevant timeframe.

Methods

Using representative individual level data from Australian adolescents I am developing a micro-simulation model to predict the prevalence and progression of overweight and obesity for these adolescents across their life course (to death) with the associated costs (direct healthcare costs and indirect productivity costs) and outcomes (Quality adjusted life years). Data from local obesity interventions will be evaluated using the model to identify the long-term impact on costs and health outcomes.

Implications/key message

The economic model developed in this project, and the results of the cost-effectiveness analyses conducted, will be used to predict which interventions or combination of interventions for adolescent obesity will deliver best 'value-for-money' from a societal perspective. This will assist decision makers to identify when it is best to intervene in adolescence and what are the most cost-effective approaches.

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Ultrasound of the Fetal Renal Parenchyma to Determine Nephron Number

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Introduction

Abnormal fetal growth can adversely impact kidney development resulting in a reduced nephron number and increased risks of developing hypertension and chronic kidney disease later in life. A non-invasive, sensitive method of assessing abnormal fetal kidney development is required. We hypothesised that the fetal renal parenchymal thickness (RPT) could be measured with ultrasound to evaluate fetal kidney development and provide an indirect estimate of nephron. The aim of this study was to compare the renal parenchymal growth between fetal growth restricted (FGR) and appropriate for gestational age (AGA) fetuses during pregnancy.

Population

The study was conducted at the Townsville Hospital, Townsville, Australia between May 2017 to February 2019. Townsville Hospital and Health Service provides tertiary perinatal services to North Queensland, which has around 10,000 births per year. Mixed risk women with a singleton pregnancy of 16- to 28-weeks were recruited to the study.

Methods

This longitudinal, observational study involved pregnant women undergoing a pregnancy ultrasound scan at least every four weeks between 16- and 40-weeks' gestation. RPT, fetal biometry and fetal Doppler were assessed in AGA and FGR fetuses. Data were analysed using mixed effects modelling so that variations between gestational ages, within fetuses and between fetuses was considered.

Results

We recruited 102 AGA and 30 FGR fetuses. The RPT was found to be significantly thinner in FGR compared to AGA fetuses (LR=21.06, p=<0.0001) and they had a slower growth trajectory. These findings suggest FGR fetuses have less nephrons.

Implications/Key Message

Measurement of the RPT is an innovative method to evaluate kidney development and estimate nephron number. FGR was found to adversely affect the renal parenchymal growth. This suggests FGR fetuses are born with fewer nephrons, rendering them more susceptible to develop hypertension and kidney disease. Early monitoring and intervention should be implemented to reduce these risks.

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Improving Aboriginal people's kidney care journeys - Kanggawodli hostel dialysis

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Background

Aboriginal people from remote areas of South Australia experiencing kidney failure often relocate to urban Adelaide to receive life-saving dialysis care. For some people this may be the first time they have had to leave family, community, country and spiritual connections for extended periods. Whilst also navigating confusing health care systems, medical terminology and limited access to culture, transport, accommodation, financial and appropriate food support. For some people, this burden becomes too hard, and they disengage from dialysis and become acutely unwell, leading to emergency admission to hospital, worsening kidney disease and passing away.

Population/setting

Aboriginal people/ kidney care

Method

The AKction – Aboriginal Kidney care Together – Improving Outcomes Now team engaged community members with individual and collective patient journey mapping to determine what was happening for them and their family members when relocating to Adelaide. Key issues raised by community regarding transport, accommodation and dialysis access were discussed in key stakeholder workshops involving clinicians, researchers, managers, transport companies, Aboriginal health services and hostels. Strategies for improvement were collaboratively designed, drawing on qualitative individual patient journey experiences and hospital dialysis attendance and emergency admission data and costings.

Results

A new approach to care was co-designed between community members and managers. Two dialysis chairs were placed within an Aboriginal hostel and specialised dialysis care provided by both Aboriginal and non-Aboriginal staff. Aboriginal patients from remote locations most at risk of missing dialysis were prioritised, offered hostel accommodation and holistic support. This resulted in improved dialysis experiences, attendance and significantly improved overall health and well-being. Two women have become well enough to return to their remote community dialysis centre for cultural visits.

Implications / key message

Health services can significantly improve Aboriginal kidney care and outcomes through patient journey mapping, partnering with community and co-designing new models of care.

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Where we Fail: First Nations Starting Dialysis with inadequate Nephrology referral time.

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Objective

Every year, in Manitoba, an average of 250 patients initiates dialysis, of these over 100 (40%) are First Nations, despite only making up 15% of the Manitoba population. Among First Nations, more than 20% will initiate dialysis within 3 months of their first nephrology consult, having no idea that their kidneys were failing. This presentation discusses the characteristics of First Nation patients who initiative dialysis with minimal to no time from their first nephrology consult.

Methods

We used health administrative data held at the Manitoba Centre for Health Policy (MCHP) for the period of 2006-2017, linked to the Manitoba First Nations Research File to identify First Nations. Data we used included: Diagnostic Services Manitoba Laboratory Data, Medical Claims, Hospital Discharge Abstracts, Drug Program Information Network Data, Public Canadian Census Files, Manitoba Health Insurance Registry, and Physician Resource File. All records are de-identified.

Lessons Learned

First Nations individuals who initiate dialysis within 3 months of diagnosis, were older, more likely to be male, had a higher comorbidly score and more likely to have hypertension and congestive heart failure. Their first diagnostic of CKD was on average at a similar time before the start of dialysis when compared to other First Nations or Manitobans, but there was a delay in nephrology referral. We are unable to assess whether this loss was based on a failure of primary healthcare, referrals falling through, medical transportation being disallowed, barriers preventing patients from wanting to attend the appointment or other reasons.

Implications

First Nations at risk of severe kidney disease continue to be lost to effective primary healthcare follow up and require urgent dialysis start without having adequate time for dialysis preparation and without being informed of their kidney disease

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Mapping the journey of First Nation patients diagnosed with Chronic Kidney Disease

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Background and objectives

This study mapped the journey of First Nation (FN) patients diagnosed with chronic kidney disease and who progressed to dialysis, to understand their journey through primary healthcare. The Manitoba Renal Program reports that from 08-2016 to 07-2017, 254 patients-initiated dialysis.

Approach

We began by enlisting the assistance of a First Nation Patient Advisory Group, consisting of up to 4 MB FN individuals with experience as a caregiver to or as a patient on dialysis. We reviewed the University of Adelaide's Health Journey Mapping Tools and group members offered their personal journeys and suggestions which were used to co-create a MB FN ESKD specific patient journey tool and in community dialysis exploration tool. A cohort was then identified consisting of MB FN individuals over 18 years of age with experience as a caregiver to or patient with ESKD.

Results

Preliminary consultation and planning with our FN Advisory Group highlighted barriers for Manitoba FN community members including access to local CKD education especially following an abnormal test result, limited transportation to medical appointments, and a lack of visibility of progressed illness within community. Community members with severe disease are required to relocate, those who remain in the community do not have models of living with advance chronic kidney disease to learn from. Above all the most common impact among participants is loss of or lack of meaningful employment and the economic impact associated with their treatment.

Conclusions

Our analyses indicate the need to extend local access to secondary prevention of renal disease to all FN communities while implementing/ improving upon tertiary prevention of renal disease within all FN communities. We also note the need to improve primary healthcare follow-up with patients diagnosed with chronic kidney disease to arrest or at least slow the progression of the disease.

Sex and ethnicity inequities while waiting for a kidney transplant: An Australian cohort study

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Introduction/background

Health service delivery for kidney transplantation does not benefit everyone equally. After entering the waiting list for a transplant, people may be temporarily or permanently suspended (for intercurrent health issues), get a transplant, or keep waiting. Time suspended may be influenced person or health service factors. We aimed to evaluate how sex and ethnicity impact transitions after entering the kidney waitlist in Australia, regardless of whether they received a transplant.

Method

We included all incident patients waitlisted for their first kidney transplant in Australia between 1/7/2006 and 31/12/2019. Patient follow-up was from waitlist entry until transplant, death before transplant or last follow-up. We used multi-state Markov model to evaluate factors associated with transitions after entering the kidney waitlist, specifically from waitlist to suspended, and suspended to waitlist. We used Cox model to evaluate factors associated with death while waiting and receiving a kidney transplant.

Results

8,466 people entered the kidney waitlist where 6,741 people received their first transplant, 381 people died while waiting and 1,344 were still waiting for a transplant. Nearly two-thirds (63%) were never suspended while waiting, but 2,111(25%) were suspended once and 1,016(12%) were suspended ≥2 times. Males were 10% (95%CI: 3-18%) more likely and Aboriginal and Torres Strait Islanders were 31% (95%CI: 19-41%) less likely to return to waitlist after suspension. Males were also 11% (95%CI: 5-17%) more likely and those of Asian ethnicity were 13% (95%CI: 6-20%) less likely to receive a transplant. Sex and ethnicity were not associated with transitioning from waitlist to suspension ($p>0.05$) or death while waiting ($p>0.05$).

Implications

Disparities relating to sex and ethnicity were present when returning to waitlist after suspension and receiving a kidney transplant. Health interventions at crucial health service delivery points while waiting for a kidney transplant could ensure women and people from minority groups have equitable access.

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Perceptions of Research Capacity and Culture in NSW Local Health Districts

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To build research capacity and capability staff need to feel supported in their endeavours. However, little is known of staff perceptions of research support in this sector.

Aim

To measure the perceptions of research capacity and culture (RCC) within NSW Health Districts (LHDs) at the organisational, team and individual levels; identify factors that impact on RCC at each level; and compare rural, regional and remote (NSW R3) with metropolitan LHDs.

Population/Setting

NSW LHD clinicians, hospital managers/executives were invited via email to complete an online survey.

Method

Cross-sectional study utilising the Research Capacity and Culture Tool (RCCT) to measure perceptions across the three levels (domains) on a scale from 1 to 10. Descriptive statistics summarized each item and domain for the sample and location. Factors impacting each domain mean were identified using general linear modelling. SPSS was used.

Results

A total of 1243 responses were analysed. The majority of participants (77%) were from NSW R3 locations. Responses indicated that the mean perception of the individual's research skills (M=4.90, SD=2.18, 95% CI [4.78, 5.06]) were greater than the means at the team (M=3.85, SD=2.30, 95% CI [3.73, 4.02]) and organisational levels (M=4.07, SD=2.04, 95% CI [3.98, 4.21]). Participants from metropolitan had higher perceptions of RCC across all three domains compared with NSW R3 LHDs.

Factors that influenced perceptions of RCC across all three domains include involvement in research and profession. A metropolitan location was found to be a factor at the organisational and team levels.

Implications/Key Messages

This study is the largest to date using the RCCT. This research provides insights into the comparison of RCC between metropolitan and NSW R3 LHDs. The differences suggests that initiatives targeting NSW R3 areas are required to provide equity of opportunity in the research space.

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Multi-Criteria Decision Analysis: Can we use it to evaluate integrated care?

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Background

The evaluation of innovative integrated care programs is complex. In addition to the wide variety of services that may qualify as integrated care, the benefits provided by different interventions can also be highly diverse. Yet, these programs often compete for the same limited funding pools. We investigated multi-criteria decision analysis (MCDA) as a potential method for evaluating and comparing different integrated care programs across the state of Queensland, Australia.

Methods

We applied a mixed-methods approach, guided by health economics principles and the Consolidated Framework for Implementation Research. Programs were assessed on six criteria: costs, health service capacity, patient outcomes, integration of care, workforce development and implementation risk, weighted by stakeholder preferences. Seventeen integrated care programs were evaluated and compared across these criteria using a cost-effectiveness approach to estimate value.

Results

Our method showed that MCDA is capable of assessing a variety of qualitative and quantitative benefits associated with integrated care. Programs that delivered a wide variety of benefits (such as a new integrated emergency care pathway for Aboriginal and Torres Strait Islander diabetes patients), or delivered strongly on key metrics identified by stakeholders (such as a program to facilitate better general practice management for foster care), were identified as high value innovations.

Conclusion

While MCDA may not be able to accurately capture high levels of detail, it is a valuable tool for the assessment of many varied projects with a diverse range of benefits, such as those implemented in integrated care. We argue that it represents a flexible, intuitive method that can better inform decision makers when deciding upon funding models for innovative new programs.

Regional District Health Board groupings in New Zealand: a realist-informed evaluation

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[3]Otago Business School, Dunedin, New Zealand

Introduction

New Zealand's regional District Health Board (DHB) groupings are intended to bring the country's 20 District Health Boards together into four groups to collaboratively plan, fund and deliver health services within their defined geographical regions. Although having broadly similar operational objectives, each of the regions differs in how they have chosen to work together to achieve these objectives. This study aimed to understand how regional DHB groupings are working to bring about improved and more equitable health outcomes and what it is about the way regional groupings operate that may explain their success.

Methods

Informed by a realist evaluation design, we conducted a qualitative process evaluation using semi-structured interviews with key stakeholders in each of the four regions (one South Island, three North Island). We carried out a thematic analysis of interviews with members of the regional DHB groupings governance teams, identifying key contextual factors, strategic and operational mechanisms, and outcomes of regional working in each region.

Findings

Our findings suggest that, although each of the regions has adopted their own approach to working together, there are a number of common contexts, mechanisms and outcomes. These include the structure and governance of the New Zealand health system and appropriate resourcing and infrastructure. More efficient and equitable care across the regions is a key focus for each of the regions. Crucially, relationships and relational working at all levels of the health system are central to the success of the DHB regions, facilitating successful working and fostering collegiality.

Implications

As New Zealand reorganises its health system, our findings illustrate the importance of ensuring its structure and governance settings are fit for purpose. They also suggest there is significant value in supporting the retention and ongoing development of regional relationships at both executive and clinical levels across new health system entities.

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“We’re not providing the best care if we are not on the cutting edge of research”: A research impact evaluation at a regional Australian Hospital and Health Service

Ms Amy Brown[1], Ms Alexandra Edelman[2], Dr Tilley Pain[1], Professor Sarah Larkins[2], Professor Gillian Harvey[3]
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Introduction/background

Research embedded in practice is critical to enable health care innovation and investment value. This research impact evaluation within a regional Hospital and Health Service aimed to identify impacts from research and key contextual conditions influencing impact outcomes.

Population/setting

This research was conducted in 2019-20 within the Townsville Hospital and Health Service (THHS), located in northern Queensland. Interviewees were staff members within THHS who were purposively selected to achieve variation by service group, professional discipline, research experience level, and gender.

Method

Phase 1 of the study involved development of a conceptual framework through documentation review and interviews with six current and former executive-level staff. Phase 2 of the study was a mixed-methods realist-informed evaluation using documentation, interviews with 15 staff and available databases to identify and measure research investments, impacts and contextual conditions.

Results/findings

Between 2008 and 2018, THHS committed increasing resources towards research in the form of funding for research projects, research personnel, research-enabling facilities, research events, and research education and training. Clinical practice, policy and workforce impacts were visible in isolated pockets of success, championed by individual researchers and facilitated by their policy and community-of-practice networks. However, there was little organisational-level support for continuity of research and implementation into practice and policy. Availability of research supports also varied across THHS, especially in rural health services.

Implications/key message

While the goal of becoming “the leading hospital research centre in Northern Australia” remains aspirational, definitive early steps in the development of THHS as a credible and productive research centre are evident. Continuing investments should involve active and systematic support for research translation and establishment of ongoing, systematic processes for evaluating research investment and impact. The findings of the research and evaluation approach adopted are likely to be useful for other health services interested in driving innovation through research.

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A Theory-of-System-Change: Application of theory of change methods to plan and evaluate Collaborative Commissioning in New South Wales.

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Background
Australia's siloed state-federal health system structure is inefficient and a major barrier to improving its performance. Collaborative Commissioning is a NSW Health initiative designed to address this through regional funding models that bring together resources, knowledge and capacity of both federal and state funded parts of the health system. Initiatives aimed a system wide reform often face barriers of due to a lack of oversight of assumptions and interconnections in a complex system

Population/setting
Collaborative Commissioning involves partnerships between Local Health Districts, Primary Health Networks, and other health partners to form Patient Centred Co-commissioning Groups (PCCGs). It requires implementation of reform, as well as rapid acknowledged success, on multiple levels to initiate fundamental system change for long term sustainability. This makes application of theory-of-change (ToC) both challenging and important.

Methods
A multi-step method was adopted to develop the Theory-of-Change in stages with input from stakeholders at design and operational levels. 11 qualitative interviews were undertaken with 13 key informants. Transcripts were analysed with results forming the basis of a multi-stakeholder workshop to gain agreement on key features, risks and assumptions. A visual depiction of the theory-of-change was presented and refined through further workshops with local implementation sites.

Results/findings
The overarching theory-of-change is to move to a standard mode of operation in which joint planning and funding of services is considered the standard mode of operation. We adapted ToC method to identify three logic streams of change along governance, incentives, and services. Logic streams were layers with 4 phases of reform; 5 virtuous feedback cycles and 6 keys to change that are critical to successful implementation.

Implications/key messages
A theory-of-system-change can be used to define the essence of a health systems reform initiative – including key components critical to success from federal and state through to local implementation levels.

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Lessons learnt from the implementation of new models of care delivery through alliance governance in the Southern health region of New Zealand: A qualitative study

Professor Tim Stokes[1], Dr Gagan Gurung[1], Associate Professor Chrystal Jaye[1], Professor Robin Gauld[2]
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Introduction

Alliancing was a key approach used in New Zealand (NZ) at the local health system level from 2013 to 2021 to promote the integration of health care across primary and secondary care. We sought to explore the process of implementation of the primary and community care strategy (PCCS) (new models of care delivery) through alliance governance in the Southern health region of New Zealand (NZ).

Setting

Southern health region of NZ (Otago and Southland)

Method

Qualitative semi-structured interviews were undertaken with key informants (Alliance Leadership Team members and senior health professionals) who were involved in developing and/or implementing the strategy. A rapid thematic analysis, informed by implementation science theory: the Consolidated Framework for Implementation Research (CFIR), was conducted.

Results

Eleven key informants were interviewed. The large number of strategy action plans and interdependencies of activities made the implementation of the strategy complex. In the inner setting, communication and relationships between individuals and organisations were identified as an important factor for joint and integrated working. Key elements of a positive implementation climate were not adequately addressed to better align the interests of health providers, and there were multiple competing priorities for the project leaders. A perceived low level of commitment from the leadership of both organisations to joint working and resourcing indicated poor organisational readiness. Gaps in the implementation process included no detailed implementation plan, ambitious targets, poor execution of the plan, the lack of a clear performance monitoring framework and an inadequate feedback mechanism.

Implications

This study identified factors for the successful implementation of the PCSS using an alliancing approach in Southern NZ. During the evaluation period, wide-ranging NZ health sector reforms were announced. With alliances, partnerships and networks increasingly held up as models for integration, this evaluation identifies important lessons for policymakers both in NZ and internationally.

Integrating the arts into healthcare: Exploring organisational readiness for change

Dr Alison Short[1], Dr Jennifer MacRitchie[2], Prof Josephine Chow[3], Ms Stella Dion[1]
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Introduction

Arts-based practices in health care have been promoted by recent policy initiatives and community interest, linking well with patient satisfaction and the provision of quality services. However, slow uptake of new arts and health innovations remains, and further initiatives are needed. Using the Consolidated Framework for Implementation Framework (CFIR), we sought to understand organisational readiness for change (ORC) related to characteristics of individual staff in the hospital context.

Method

Research questions focused on i) whether the experiences of staff influenced their willingness to implement arts and health interventions, ii) if staff were aware of current music and visual-art programs within the hospital and iii) staff perceptions of barriers to implementation of arts within healthcare. This mixed methods study followed a sequential explanatory design, with an initial quantitative online survey (N=38) recruiting metropolitan tertiary hospital staff for an online survey followed by qualitative focus group.

Findings

Despite staff generally reporting willingness include arts initiatives, we found that this was not influenced by their personal experience of the arts. These same professionals seemed relatively unaware of arts programs being successfully undertaken in their hospital, except those directly involved in implementation and delivery. Barriers to implementation were perceived to come from upper management, with successful programs resulting from individuals or individual team motivations.

Key messages

Staff perceptions about use of the arts in health and how such programs are being implemented within existing health contexts is paramount for increasing and extending the implementation of arts and health programs within a change management framework of organisational readiness for change. In addition, we suggest that providing carefully designed educational programs are key to promoting innovative changes supporting the incorporation of the arts into regular patient care for improved satisfaction and quality care within the health system.

12th Health Services Research CONFERENCE

Resilience, innovation and value through research.

DAY TWO

THURSDAY 1 DECEMBER

Plenary Session 2

“This Bridge Will Only Take You Halfway There”: Adventures in Engaged Scholarship

Dr Sara Kreindler
University of Manitoba, Canada

The idea of bridging worlds through researcher–decision-maker partnership – sometimes known as engaged scholarship – has gained increasing traction. Research knowledge that is co-produced with decision-makers is more likely to be relevant and usable in real-world contexts. However, this does not guarantee that it will actually be used. This talk explores the advantages and limitations of engaged scholarship, as illustrated through my experiences as an embedded researcher in a Canadian regional health system.
First, I will describe our embedded unit’s strategies to maximize the likelihood of findings being valued and used – such as identifying organizational champions and engaging deeply with decision-makers to better define their knowledge needs. Our work was indeed valued, but was it used? Invoking Weiss’ distinction between three types of knowledge use, I will explore how the vagaries of organizational decision-making can impede the type researchers most want to produce: instrumental use (i.e., use of findings to directly inform a concrete decision).

Next, I will recount an experiment in “bringing evidence closer to the action” by implanting myself in a decision-making process. Decision-makers welcomed me to the table and acknowledged the evidence I presented. . . but proceeded to make the actual decision elsewhere. This vignette, in which I failed not merely to influence but even to locate the decision-making process, starkly illustrates the difficulty of generating instrumental use. After briefly reviewing some variations on this strategy – none successful – I will suggest some better options for researchers seeking to make a difference.
Most recently, my work has led me to bridge the worlds of research and the arts. I will conclude with a clip from Larry Saves the Canadian Healthcare System, an unusual arts-based knowledge translation product, which offers its own comment on the challenges of engaged scholarship.

Decolonising First Nations kidney healthcare: This is What it Looks and Feels Like!

Dr Kim O'Donnell
University of Adelaide, Australia

Australian First Nation cultures are the oldest continuing living cultures in the world. The richness, science, and diversity of all First Nations' cultures is something everyone should celebrate. Colonisation instigates perpetuating harm on First Nations Peoples, who continue to experience extreme hardships. This includes loss of cultural practices and homelands, the forced removal of children, high incarceration, and denial of citizenship rights. This harm has historic and ongoing impacts on First Nations Peoples' health and well-being, resulting in poor outcomes for chronic diseases, including chronic kidney disease (CKD). This history needs to be understood with openness, truth telling, reflective practice, and cultural humility.

The Adelaide, South Australian based AKction research movement began in 2018 with a 12- month Medical Research Future Fund (MRFF) grant. Now the AKtion2 movement, its scope has expanded dramatically through the 2020 NHMRC Ideas Grant flipping the Eurocentric research model(s), purposefully embedding decolonisation, self-determination, power shifting, and has data sovereignty at its core.

Aboriginal people with lived experience of kidney disease, are now Chief Investigators, alongside Dr Kim O'Donnell and Assoc Prof Janet Kelly, nephrologist Dr Samantha Bateman and Professor Josée Lavoie, from the Indigenous Institute of Health and Healing at Canada's University of Manitoba.
Clinicians and researchers, including non-Indigenous nephrologists Dr Stephen McDonald and Associate Professor Shilpa Jesudason, Torres Strait Islander senior researcher fellow Dr Odette Pearson, a health services and epidemiology researcher, and renal nurse academic Melissa Arnold-Chamney, have taken up support roles as Associate Investigators.

The movement is founded on long-term relationships, a shared determination to address systemic racism, and recognition of the need for Aboriginal and Torres Strait Islander leadership, autonomy and governance for change to improve kidney care and the uptake of transplants for our peoples.

This is our story!

Featured Research 1 - HCF Foundation

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Invasive coronary angiography in unselected patients presenting with chest pain to emergency departments in Western Australian teaching hospitals

Frank Sanfilippo

Introduction

Chest pain is a very common presentation to emergency departments (EDs). Invasive coronary angiography (ICA) is a well-established diagnostic test for detecting coronary artery disease. Depending on various factors, ICA may directly follow from the ED presentation, be delayed or not considered. We investigated the use, determinants and outcomes of ICA following ED presentations for chest pain in Western Australia (WA) during 2016-2017.

Method

We used linked ED, hospitalisations, pathology and death data from the WA Data Linkage System to identify all adults aged ≥20 years presenting with chest pain to public hospital EDs in Perth from 01 Jan 2016 to 31 Mar 2017. Frequency and time to ICA are reported. Multivariable logistic regression identified the determinants of ICA within 90 days of ED presentation. Restricted cubic splines fitted in multivariable Cox regression models showed the relationship between time to ICA and cardiovascular outcomes.

Results

The study cohort had 16,974 people with mean age 56 years, and 51% were males. 986 patients (5.8%) had ICA within 1 day of presentation, 394 (2.3%) within 2-3 days, 543 (3.2%) within 4-90 days and 15,051 (88.7%) had ICA after 90 days or no ICA. Age, sex, residential area residence, triage code, troponin classification, ED diagnosis, and medical history were all significant determinants of 90-day ICA. The adjusted odds of women receiving ICA was 0.53 (95% CI 0.47, 0.61). Restricted cubic splines showed a biphasic relationship between time to ICA and death.

Implications

Determinants of ICA suggest that clinical practice is performing largely as expected, but reasons for a lower odds of ICA in women requires further investigation. Early ICA is associated with a lower risk of death but may not affect MI outcomes after adjusting for cofactors.

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Short-stay joint replacement models of care in Australia

Ilana Ackerman

Introduction

While joint replacement surgery is an effective treatment for end-stage osteoarthritis, anticipated growth in surgical rates will place considerable strain on the Australian health system. The lifetime risk of knee replacement in Australia is 1 in 5 for women and 1 in 7 for men, and the number of procedures is predicted to rise by 276% by 2030 should recent trends continue. Given an ageing population plus the enduring impact of COVID-related restrictions on elective surgery, our capacity to meet expected joint replacement demand requires consideration of safe, efficient models of care. Short-stay joint replacement programs (also known as ‘fast track’ or ‘rapid recovery’ programs) have been introduced in many countries but are not common in Australia and implementation challenges are evident. This presentation will outline a new research project on short-stay joint replacement programs and consider how the data generated can be used to guide future implementation initiatives.

Methods

This project comprises three key components, designed to provide complementary information:

1. A systematic review of contemporary evidence for short-stay joint replacement programs, focusing on optimal patient selection, safety considerations, and barriers to implementation and sustainability.
2. A national stakeholder survey (focusing on clinicians, patients and administrators) of the acceptability and feasibility of short-stay joint replacement programs, current practices, and barriers and enablers to implementation and sustainability.
3. A budget impact analysis to examine cost savings and other impacts that could be achieved by implementing short stay joint replacement models of care across Australia.

Implications

This research program will enable us to better understand current Australian practices in short-stay joint replacement, factors affecting implementation and sustainability, and the potential financial and throughput impacts that could be achieved by implementing these programs nationally. Addressing these knowledge gaps is critical for informing clinical practice in Australia.

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A multicentre controlled implementation evaluation of a blunt chest injury care bundle (ChIP)

Dr Sarah Kourouche

Background

Blunt chest wall injuries can lead to complications, especially without early intervention. A care bundle (ChIP) was developed and implemented to help improve consistency of evidence-based care following admission to ED.

Aim

To evaluate 1) implementation and treatment fidelity and 2) the effect of ChIP on patient and health service outcomes.

Methods/Results

Phase 1: Implementation Strategy Fidelity: ChIP was implemented using a multi-faceted implementation plan developed using the Behaviour Change Wheel. There was high overall fidelity of 97.6% for BCTs partially or fully-implemented. The modes of delivery with poorer implementation or increased adaptations were clinical champions and audit/feedback.

Treatment fidelity: Pre/post evaluation. Over 19-months, 97.1% (n=440) of eligible patients received ChIP. The post-group were more likely to receive evidence-based treatments: high-flow nasal cannula (OR=6.8 (95%CI 4.8-9.6)), incentive spirometry (OR=7.5 (95%CI 3.2-17.6)), regular analgesia (OR=2.4 (95%CI 1.5-3.8)), regional analgesia (OR=2.8 (95%CI 1.5- 5.3)) and patient-controlled analgesia (OR=1.8 (95%CI 1.3-2.4)).
Phase 2: Controlled pre/post study (two intervention and two non-intervention sites) conducted July2015 to June2019 (n=1790). Primary outcome measures were unplanned ICU admissions, non-invasive ventilation (NIV) use and mortality.

Intervention sites had a 58% decrease in NIV use in the post period (95%CI 0.18 – 0.96). ChIP was associated with 90% decreased odds of unplanned ICU admissions (95%CI 0.04 – 0.29). There were higher odds of health service team reviews (surgical OR=6.6 (95%CI 4.61 – 9.45), physiotherapy OR=2.17 (95%CI 1.52 – 3.11), ICU doctor OR=6.13 (95%CI 3.94 – 9.55), ICU liaison OR=55.75 (95%CI 17.48 – 177.75), pain team OR=8.15 (95%CI 5.52 – -12.03).

Conclusions

High fidelity of delivery was sustained over 19 months for the implementation of a complex intervention in the acute context through a robust implementation plan based on theoretical frameworks. ChIP was associated with a sustained improvement in evidence-based practice and reduced unplanned ICU admissions and NIV requirement.

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Using clinical registry data to improve outcomes in burns patients

Lincoln M. Tracy

Background

Burns patients are at an increased risk of venous thromboembolism (VTE). Although VTEs are rare, the importance of VTE prevention cannot be understated, as VTEs are associated with a three-fold increase in risk of death. There has been limited research into the effectiveness of VTE prophylaxis use in burns patients, and few (if any) widely accepted guidelines for VTE prophylaxis use clinically. Across two studies, we aimed to quantify VTE prophylaxis use across Australian and New Zealand burn services, identify the association between prophylaxis use and outcomes, and determine the adequacy of current enoxaparin thromboprophylaxis regimens.

Method

Analysis of admission data for adult (≥ 16 years) patients captured by the Burns Registry of Australia and New Zealand between July 2016 and December 2018. Retrospective review of VTE in cases admitted to the Victorian Adult Burns Service (VABS) between 2013 and 2018; prospective study to determine peak and trough antifactor Xa levels in patients with burns affecting > 10% of total body surface area between February and September 2019.

Results

After adjusting for relevant confounding factors, there was significant variation in VTE prophylaxis administration rates between specialist burn services. However, lower rates of VTE prophylaxis use were associated with increased mortality. A subsequent prospective study at the VABS found a low rate of achieving peak therapeutic levels of antifactor Xa in patients receiving routine dosing of clexane. A new clinical guideline for VTE prophylaxis administration has been developed at the VABS. Additional prospective studies examining rates of VTE following implementation of the new clinical guideline are planned.

Key message

Initiatives using findings from clinical quality registries should be seen as a resource to compliment improvement in the quality of care, rather than as a standalone prospect. Registries play a key role throughout the process of translating findings into practice.

Speaker Bio: Dr Lincoln Tracy is a Research Fellow within the Prehospital, Emergency and Trauma Group at the School of Public Health and Preventive Medicine, Monash University. Working primarily with data from the Burns Registry of Australia and New Zealand, he undertakes research identifying objective and verifiable data on treatment, outcomes, and quality of care to encourage higher standards of burn injury prevention and care.

Featured Research 2 – INSIGHT University of Technology Sydney Faculty of Health

Multidisciplinary Collaboration to solve wicked problems in health

Panel members and research focus:
Prof David Brown: Chair of Panel Discussion
Prof Angela Dawson: Climate Change and Global Health
Prof Deborah Parker: Ageing
Prof Rosalie Viney: Health Economics
Dr Tim Luckett: Palliative Care

The newly developed Health Research Institute INSIGHT at the University of Technology Sydney is reimagining health research by engaging researchers across disciplinary boundaries, industry and consumers in collaborative ways to solve complex real-world health problems.
This session will showcase the works of its health research centres, pan-university collaboratives, and extensive partnerships that address the nation's priorities in key areas: dementia, ageing and aged care, chronic disease, Aboriginal and Torres Strait Islander health and women and children's health.

The digital health collaborative involves researchers in health, science, engineering, and IT working with industry to provide safe, seamless and secure technology solutions that support clinical decision making, care management and care delivery. Our climate change collaborative mobilises researchers to work on the multifaceted health impacts of climate change particularly around mitigation and disaster resilience.

Examples of our research also highlight the importance of embedded methodological expertise across clinical trials, biostatistics, epidemiology, health economics and qualitative research to ensure high quality innovative research solutions.

Symposium 4: Optimising co-design of health services interventions

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Addressing implementation during co-design

Associate Professor Reema Harrison[1], Dr Eidin Ni She, Dr Deborah Debono, Mr Ashfaq Chauhan[1], Dr Bronwyn Newman[1]
[1]*Macquarie University, Sydney, Australia*

Introduction/background
Current approaches to co-design in health predominantly focus to the design elements of change proposals, with limited attention to its application into healthcare services. Ensuring co-designed change is adopted and embedded beyond the project lifecycle is challenging. We outline how applications of implementation science frameworks may support the implementation of co-designed healthcare change. We propose that implementation science be used at the inception of an intervention during co-design to identify likely barriers and enablers to implementation. We report one such application in the context of a program of co-design research with culturally and linguistically diverse (CALD) consumers in Australian cancer services.

Population/setting
Ethnic minority consumers in cancer service settings.

Method
Experience-based co-design was conducted with clinicians and patients across three cancer services in New South Wales aiming to develop patient engagement interventions to improve the safety of care for CALD consumers. The Consolidated Framework for Implementation Research (CFIR) was applied as an analytic framework to interview data gathered from clinicians and consumers at each of the three study sites.

Results/findings
During this session, we will present findings from the interview analysis of the likely barriers and enablers to patient engagement interventions seeking to promote patient safety in cancer services. We will discuss how these findings were applied within the co-design workshop process at one of the research sites to inform the intervention design.

Implications/key message
Embedding implementation science frameworks into co-design processes enables researchers and healthcare staff to proactively identify and address implementation concerns.

Amplifying diverse voices in co-design

Mr Ashfaq Chauhan[1], Associate Professor Reema Harrison[1], Ms Laurel Mimmo[2], Dr Bronwyn Newman[1]
[1]Macquarie University, Sydney, Australia, [2]Sydney Children's Hospital Network, Sydney, australia

Introduction/Background
Co-design facilitates democratic dialogue between the health service users and providers to ensure that the healthcare changes, and their implementation, are designed to meet user and stakeholder needs. Whilst there is growing recognition of the need for diverse voices to be heard, few works have reported approaches that support effective engagement during the co-design process with diverse consumers and those with complex care needs.

Method
We describe two projects that applied a modified experienced-based co-design approach to a) develop patient safety interventions with ethnic minority populations accessing cancer services and b) develop a patient experience measures for use with children and young people with intellectual disability. Our adapted EBCD approach included working with consumer co-facilitators and co-researchers from CALD backgrounds (project 1)and with young people who have intellectual disability and their families (project 2). The adapted EBCD also included a preparatory stage to ensure all members of the co-design were adequately supported and trained. to conduct the co-design.

Findings
Findings of the mixed-methods process analysis in form of survey, interview fieldnote and documentary data from project 1 of the co-design-will be reported. We report learnings from the planning and process analysis of the co-design regarding approaches to optimise supports and training in the preparatory phase, practical techniques for optimising the co-design process and the evidence produced from the mixed-methods analysis.

Implications or key message
Our findings have implications for healthcare staff and researchers seeking to co-design. Amplifying diverse voices in the co-design requires careful consideration of the preparatory processes at the outset. Using consumer co-facilitators may contribute to more even power distribution and ease of engagement. Asking participants to develop their own schedule for the workshops and terms of reference may provide them with autonomy, sense of purpose and belonging.

Co-researching to amplify seldom heard voices in health services research.

Ms Laurel Mimmo[1,2], Associate Professor Susan Woolfenden[1,2], Professor Joanne Travaglia[4], Professor Iva Strnadová[1], Ms Maya Tokutake, Ms Karen Phillips[2], Mr Matthew Van Hoek, Ms Debbie Van Hoek, Dr Éidín Ni She[1], Dr Bronwyn Newman[3], Mr Ashfaq Chauhan[3], Associate Professor Reema Harrison[3]

[1]University Of New South Wales, Randwick, Australia, [2]The Sydney Children's Hospitals Network, Sydney, Australia, [3]Australian Institute of Health Innovation, Macquarie University, North Ryde, Australia, [4]Faculty of Health, University of Technology, Sydney, Sydney, Australia

Background

Patient/carer perspectives are routinely sought by health services and researchers to identify healthcare priorities and enhance and improve patient safety and quality. The need to ensure diverse perspectives, including those of children and young people, are captured and actioned in healthcare research is increasingly recognised. Inclusive research approaches can allow such populations to meaningfully participate in health services research that seeks to bring about healthcare change and improvement by minimising hierarchy between researchers and study populations;(1) members of the population group have control and input at any and/or all phases of the research.(1) We report experiences of co-researcher training and development with seldom heard populations: 1) CALD populations accessing cancer services and 2) young people with intellectual disability.

Method

Between July 2020 and August 2021 we conducted co-researcher training workshops with young people with intellectual disability and further group of training with consumers from CALD backgrounds experiencing cancer. Sessions were used to develop skills and knowledge in research processes, alongside specific skills in research techniques for subsequent co-design research.

Results

Findings from process analyses using interviews and analysis of materials produced during the workshops, will be reported along with practical guidance for healthcare staff and researchers. Evaluative findings highlight the potential for co-researching with diverse populations to shift research focus and inform research methods. Importance of early and regular engagement between researchers and co-researchers for relationship development, assessing and revisiting individual and group needs, and proactively managing risk and expectations were also apparent. Ongoing co-research activities include co-presenting, co-authorship of research and practice-based articles and the progression of further collaborative projects.

Implications

Inclusive methods can support health service researchers to ensure the perspectives of seldom heard populations are represented. Co-researcher development requires consideration of both population and individual needs, along with processes to concurrently assess and adapt training activities.

Symposium 5: Building health services innovation capacity in a large health service is like turning an aircraft carrier

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Does building clinicians' health services innovation capacity impact implementation of evidence-based practice and patient outcomes?

Dr Elizabeth Martin[1], Dr Olivia Fisher[1], Dr Greg Merlo[3], Dr Pauline Zardo[1], Ms Sally Barrimore[2], A/Prof Jeffrey Rowland[2], Prof Janet Davies[2]

[1]Queensland University Of Technology, Kelvin Grove, Australia, [2]Metro North Hospital and Health Service, Herston , Australia, [3]University of Queensland, Herston, Australia

Background
Challenges to health service innovation can be addressed by building staff capacity to design cost-effective, evidence-based innovations and selecting appropriate implementation strategies. A bespoke university award qualification and associated program of activities was developed to build health service staff capacity to implement and evaluate evidence-based practice (EBP): a Graduate Certificate in Health Science (Health Services Innovation major). The aim of this study was to establish the health service's pre-program capacity to implement EBP and to identify preliminary changes in capacity following program implementation.

Setting
A Queensland university partnered with Australia's largest health service to develop and implement the program across multiple campuses in Brisbane, Australia.

Methods
A mixed methods design underpinned by the Consolidated Framework for Implementation Research informed the research design, data collection and analysis. Data about the framework constructs were sought through qualitative interviews of university and health service executives, focus groups with course participants and a quantitative survey. The outcomes measured were knowledge of, attitudes towards, and use of EBP within the health service, as well as changes to practice which students identified had resulted from their participation in the program.

Results
The program has contributed to short term changes in health service capacity to implement EBP. Participating students have not only increased their individual skills and knowledge, but also changed their EPB culture and practice which ignited and sustained health service innovations and improvements in the first 18 months of the program. Capacity changes observed across wider sections of the organization include an increase in connections and networks, use of a shared language, and use of robust implementation science methods such as stakeholder analyses.

Key message
Developing the social capital of the organisation through delivering a full suite of capacity-building initiatives was critical to the preliminary success of the program.

Does Implementation Science matter? Developing a protocol to monitor cognition and clinical progress during Electroconvulsive Therapy

Dr S Garrett-Walcott[1], Dr O Fisher[2]
[1]Metro North Hospital and Health Service, Caboolture, Australia, [2]Wesley Research Institute, Australia

Background
Electroconvulsive Therapy (ECT) is an evidence-based procedure for the treatment of severe psychiatric disorders. There is consensus that monitoring of clinical progress and cognition of patients when receiving ECT is important. However, this monitoring is not standardised in many services, resulting in practice inconsistencies.

This project used a novel Implementation Science methodology incorporating a combination of models and frameworks to inform the formulation and implementation of a clinical protocol for monitoring of cognition and clinical progress of patients during ECT.

Population
Redcliffe Caboolture Mental Health Service ECT end users: providers (psychiatrists, nurses) and carer/consumer advocates.

Method
A clinical protocol based on the Royal Australian and New Zealand College of Psychiatrists Professional Practice Guidelines for the administration of ECT was formulated through consultation via meetings and a mixed-methods survey with end users. An iterative approach moving between theory, problems, and possible solutions was adopted, with results informing next steps. Deductive analysis to Consolidated Framework for Implementation Research constructs was used for qualitative survey data.

Results
Factors identified during consultation informed the implementation strategy focussing on mitigating barriers and leveraging facilitators.

Most respondents felt the draft protocol was consistent with current management provided and would improve current practice. However, several barriers were identified that were likely to impact successful implementation, particularly: (1) only 38.1% felt there was a need for change of practice and were inclined to do so, (2) concerns about time and resource limitations and misalignment of existing processes with the protocol.

The findings informed a contextually-tailored implementation strategy, which will be evaluated via the embedding of the protocol.

Implications
Evidence alone was insufficient to change clinical practice, irrespective of its robustness. Using theoretical approaches to identify and address key barriers and facilitators prior to, and during, the introduction of the protocol increased the likelihood of successful implementation.

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Context Assessment in establishing Midwifery Group Practice dedicated to women with a history of substance use.

Patricia Smith[1]
[1]*Queensland Health,*

Introduction
Maternity care for women with a history of substance use is complex with high failure to engage in standard services and for which individualised continuity of care is considered 'gold standard'. The objective of this study was to identify the contextual enablers and barriers to implementing a dedicated midwifery group practice model. We intended to use this information as a foundation for a successful and sustained implementation.

Setting
This study was set in the context of introducing a midwifery group practice for women with a history of substance use (and potentially other vulnerabilities) in the setting of broader maternity services.

Method
A qualitative approach underpinned by the Consolidated Framework for Implementation Research (CFIR) was used. Face to face interviews and focus groups were conducted at a single Australian maternity service. Themes were revealed from the qualitative transcripts and mapped to the CFIR constructs to identify implications of local results to Australian maternity services more broadly.

Results
There is existing acceptance and validity for an MGP for women with a history of substance abuse amongst multi-disciplinary teams and consumers. There was recognition that the proposed model of care is supported by research and a view that clinical benefits will outweigh costs, however supervision and support is required for midwives to manage and limit vicarious trauma and an interdisciplinary team supporting the midwives is an essential component of the service design.

Implications
Australian maternity services can use our results to compare how the perceptions of local stakeholders might be similar or different to the results presented in this paper. For maternity services seeking to implement a midwifery group practice for vulnerable women, our results can be leveraged to further investigate other local contexts, and quickly identify strategies for effective and sustained implementation of the new model of care.

Cost analysis of BeFIT 4 Lungs Program- a novel pulmonary rehabilitation project

Ms Archana Mishra[1]

[1]*Healthcare Excellence And Innovation, Metro North Health, BRISBANE, AUSTRALIA*

Chronic Obstructive Pulmonary Disease (COPD) is one of the leading causes of burden of disease across worldwide with significant costs to health system. Group-based pulmonary rehabilitation programs are effective in reducing hospitalisation and improving exercise capacity and quality of life of people with COPD. However, uptake of traditional pulmonary rehabilitation remains low due to reasons such as lack of clinicians' awareness, unavailability of program closer to home, travel cost, poor health condition etc.

A novel pulmonary rehabilitation project BeFIT 4 Lungs was implemented in Metro North Health in 2019 that offered three models– Satellite (community centre-based), Home-based (with physiotherapist support) and Independent (self-driven with limited physiotherapist support) providing patients options to choose rehabilitation closer to or in convenience of their homes.

A cost analysis study was conducted to examine economic viability of BeFIT 4 Lungs across the initial intake (71 patients). This involved comparison of project cost to the costs incurred of patients' hospital usage before commencing the program, evaluating cost per model and per person using data available through corporate datasets.

The analysis showed BeFIT 4 Lungs to be a cost-effective project considering choices offered, improved uptake and total cost. The project cost was ~$300,000 less than the hospitalisation cost of enrolled patients ($809,518). Satellite provided most value-for-money serving highest number of patients enrolled (44 of 71), spent least number of hours per patient (~8hrs compared to ~10hrs for Home-based) and cost relatively similar to Home-based in per person cost ($766/hr compared to $626/hr). Independent was similar to Home-based in terms of cost but had poor uptake (only 3 patients).

This analysis adds understanding to the economics of delivering novel alternate models of pulmonary rehabilitation models especially in terms of sustainability. Further cost-effectiveness analysis is recommended to add to the evidence base and embedding them as business as usual.

Inpatient diabetes education is high-value care: a cost-effectiveness analysis from a single hospital perspective

Ms Ann Whitaker[1], Mr Sameera Senanayake[2,3], Mr Sanjeewa Kularatna[2,3]

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Background/Setting

Patient education, via a Credentialled Diabetes Educator (CDE), is pivotal to optimal diabetes management. Most Australian hospitals have designated CDE positions, however this rigid model-of-care hinders service capacity, flexibility and sustainability, impacting longer-term diabetes-related outcomes.

While the overarching cost-effectiveness of CDEs is known, the impact on a single hospital facility has not been evaluated. We completed a facility-level cost-effectiveness analysis of an optimised inpatient CDE service, for a Queensland general metropolitan public hospital. Analysis was completed in preparation for establishing a multidisciplinary CDE team service.

Method

This hypothetical scenario-based cost-effectiveness analysis used a Markov model to follow a patient cohort admitted with a primary diagnosis of diabetes, based on casemix data, for twelve 28-day cycles. The intervention, an optimised service where every diabetes-related admission received inpatient CDE care, was compared against hypothetical ‘usual care’ of no inpatient CDE service. Model inputs were informed by 2019 hospital casemix and financial data.

Outcome measures for the analysis were: healthcare costs from a facility perspective; 28-day readmission rates; and the incremental cost-effectiveness ratio - the difference in facility-level healthcare costs compared to the change in readmission outcomes.

Results

Casemix data indicated that of the 314 diabetes-related admissions, 103 (32%) received inpatient CDE care. There were 50 (16%) 28-day readmissions, which were more likely in patients without inpatient CDE review.

For every 100 admissions over the year, the hypothetical optimised inpatient CDE service saved an estimated $64,223 in facility costs, with 84 less 28-day readmissions, compared to no inpatient CDE service. This intervention can therefore be considered a dominant strategy.

Implications

Implementing an optimised inpatient CDE service is likely to be cost saving at a facility level, reducing readmissions while reducing healthcare costs to the facility. Once implemented, further analysis will be required to establish additional benefits of a multidisciplinary CDE team approach.

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Using Implementation Science to introduce the concepts of Opioid Stewardship to acute hospitals

Elizabeth Martin, Champika Pattullo

Background

Opioids play a central role in pain management in acute hospital settings especially after surgery and trauma. However, there are concerns regarding the appropriateness and the volume of opioid prescriptions on discharge, and that opioids are often prescribed in excess of need. The aim of this project was to develop and evaluate a resource to facilitate implementing an opioid stewardship program in acute hospitals

Method

The Opioid Prescribing Toolkit (OPT) was developed based on pilot projects implemented in the Emergency Department (ED) and an orthopaedic surgical ward in a major tertiary referral hospital.

OPT uses the Consolidated Framework for Implementation Research to describe a multi-faceted opioid prescribing intervention. It guides the user to establish local Quality Improvement (QI) Teams and in undertaking context assessments. Results of prescribing audits are used to guide the development of context-sensitive educational strategies as part of the iterative implementation and evaluation strategy.

The primary outcome was the proportion of oxycodone prescriptions indicating a tailored (non-default quantities) prescribing practices. Secondary outcomes are evidence of opioid stewardship activities, e.g. development unit specific oxycodone guidelines, establishment of opioid stewardship steering groups etc

Results

To date OPT has been used to scaled-up the intervention in 15 Queensland public hospitals and adapted to 3 clinical areas. ED oxycodone guidelines were developed in 10 hospitals following implementation. Large group meetings or Grand Rounds were used as means of introducing OPT in all but 2 facilities, with 9 sites establishing an opioid stewardship steering group. Results of three pilot sites have shown statistically significant rates tailored oxycodone prescribing on discharge (62% vs. 90%, $P<0.0001$).

Conclusion

By using Implementation science methodology has enabled the replication of a successful intervention using a structured and phased approach. It allowed for local adaptations that increased acceptability of the change to practice and impacted on both initial successes. Using this approach has also allowed for opioid stewardship interventions to work in synergy with other initiatives thus providing overall improvements to pain management.

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How systemic racism results in poorer outcomes for First Nations, and what First Nations are doing about it: the example of Kidney health

Mrs Lorraine McLeod[1], **Ms Josee Lavoie**[3], Mr James Zacharias[2], Ms Tannyce Cook[1]

[1]Diabetes Integration Project at First Nation Health And Social Secretariat Of Manitoba (FNHSSM), Winnipeg, Canada, [2]Manitoba Renal Program , Winnipeg, Canada, [3]Ongomiizwin Health Services at the University of Manitoba, Winnipeg, Canada

Objective

End-stage kidney disease continues to disproportionally impact the lives of First Nations patients. Systemic racism is a key determinant, and manifests as differential access to other determinants of health (housing, employment, access to care) and differential care. This presentation discusses how different models of primary health care operating in Manitoba result in different outcomes for patients identified as being at risk of kidney disease.

Methods

We used health administrative data held at the Manitoba Centre for Health Policy (MCHP) for the period of 2006-2017, which was linked to the Manitoba First Nations Research File to identify First Nations. Data we used included: Diagnostic Services Manitoba Laboratory Data, Medical Claims, Hospital Discharge Abstracts, Drug Program Information Network Data, Public Canadian Census Files, Manitoba Health Insurance Registry, and Physician Resource File. All records are de-identified.

Lessons Learned

We identified 12,613 First Nations people with chronic kidney disease (CKD) during the study period. Results show that First Nations individuals with CKD who reside in communities served by Nursing Stations (most remote communities) when supplemented by Indigenous-centric primary care was consistently more likely to receive follow-up serum creatinine (OR 1.37, 95% CI: 1.30-1.45, $p<0.001$), urine ACR (OR 1.22, 95% CI: 1.16-1.28, $p<0.001$), serum potassium (OR 1.40, 95% CI: 1.32-1.49, $p<0.001$) than individuals who lived in communities served by Nursing Stations alone, Health Centres, Health Offices, or Off Reserve.

Implications

Remoteness is not a risk factor for First Nations in Canada, if access to primary healthcare is primarily determined by First Nations managed health services. Addressing the rise in premature mortality experienced by First Nations from kidney diseases require greater investments in First Nations-centric primary healthcare, and addressing systemic racism embedded into access to all determinants of health.

The unintended consequences of 'benevolent' structures and their potential for harm in the implementation of Jordan's Principle in Manitoba, Canada

Dr. Josée Lavoie[1], Assistant Professor Alison J. Gerlach, Associate Research Professor Vandna Sinha, Research Associate Shawna Lavallee, Professor Marlyn Bennett, Associate Professor Lucyna Lach
[1]*University Of Manitoba, Winnipeg, Canada*

Introduction

Driven by a series of ground-breaking rulings issued by the Canadian Human Rights Tribunal (2016-2022), the implementation of Jordan's Principle has transformed the landscape of health, social, and education services for First Nation children in Canada. This presentation will make visible how inter-related structural inequities continue to impede the implementation of Jordan's Principle in Manitoba; highlighting the need for structural and systemic changes in order to meet legislated obligations for addressing the social and health inequities that many First Nations children in this province continue to experience. This presentation will draw on the concept of structural violence to highlight the harmful consequences for First Nations children of maintaining the structural status quo in how Jordan's Principle is being implemented.

Setting

The findings discussed draw from a larger study commissioned by the Public Interest Law Centre and a large research team working in partnership with the Assembly of Manitoba Chiefs.

Methods

Mixed methods of data collection included document review, individual and group interviews, participant observation, administrative data, survey data and case studies.

Findings

Findings bring to light inter-related factors, including: high caseloads and growing waiting lists; administrative burden and delays, inadequate physical infrastructure, including digital infrastructure, insufficient resources for capacity enhancement initiatives and insufficient regional coordination and support.

Key messages

This research provides important insights for addressing underlying structural inequities and concrete recommendations for structural changes that have relevance for other jurisdictions in Canada seeking to fully implement Jordan's Principle. Lessons from current efforts to transform services or First Nations children in Manitoba may also be relevant for those working to promote equitable services for Indigenous peoples in other countries.

Experiences of Aboriginal patients in New South Wales public hospitals: the Aboriginal patient experience program

Dr Alison Witchard[1], Dr Bich Tran[1], Ms Lilian Daly[1]
[1]*Bureau Of Health Information, Sydney, Australia*

Experiences of Aboriginal patients in New South Wales public hospitals: the Aboriginal patient experience program

Background
The Centre for Aboriginal Health and the Bureau of Health Information have established a multi-year partnership to measure and report on Aboriginal patient experience in NSW to support culturally safe and responsive health services. As part of this program, we investigated the experiences of over 8,000 Aboriginal people over a five-year period to explore differences in patients' experiences, experiences over time and the impact of access to Aboriginal Health Workers (AHWs) during a hospital stay.

Method
We collected and analysed the experiences of care of more than 8,000 Aboriginal people who were admitted to a NSW public hospital from 2014 to 2019, and the experiences of almost 300 Aboriginal women who gave birth in a NSW public hospital during 2019. Multivariable logistic regression was used to identify differences in patient experiences between Aboriginal and non-Aboriginal people, Aboriginal people across urban and rural facilities and Aboriginal people who reporting being offered the support of an AHW.

Results
At the NSW level, Aboriginal peoples' ratings of care improved significantly from 2014 to 2019 however, in 2019, Aboriginal peoples' experiences of hospital care was lower than non-Aboriginal people across most measures people. Aboriginal patients admitted to rural hospitals had significantly more positive experiences than those in urban hospitals. Across key measures, Aboriginal people who received the support of an AHW rated their patient experience as significantly higher than those who did not.

Key message
The Aboriginal patient experience program continues to monitor and inform strategies to improve cultural safety for Aboriginal people through collecting and reporting on Aboriginal patients' experiences of care. While there have been some improvements in Aboriginal patients' experiences in NSW public hospitals, there remains several areas for further development and improvement.

Examining the Role of Indigenous Primary Healthcare Across the Globe in Supporting Populations During a Public Health Crisis.

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Background
When health systems are overwhelmed during a public health crisis regular care is often delayed and deaths result from lapses in routine care. Indigenous primary healthcare (PHC) can include a range of programs that incorporate treatment and management, prevention and health promotion, as well as addressing the social determinants of health (SDoH) and a focus on redressing health inequities. We examined how Indigenous PHC mobilizes and innovates during a public health crisis to address patient needs and the broader SDoH.

Methods
A rapid review methodology conducted from January 2021 – March 2021, was purposefully chosen given the urgency with COVID-19, to understand the role of Indigenous PHC during a public health crisis.

Findings
This yielded five main themes that highlight the role of Indigenous PHC during a public health crisis: (1) development of culturally appropriate communication and education materials about vaccinations, infection prevention, and safety; (2) Indigenous-led approaches for the prevention of infection and promotion of health; (3) strengthening intergovernmental and interagency collaboration; (4) maintaining care continuity; and (5) addressing the social determinants of health.

Implications/conclusion
The findings highlight important considerations for mobilizing Indigenous PHC services to meet the needs of Indigenous patients during a public health crisis such as COVID-19.

Patient complexity assessment tools containing inquiry domains important for Indigenous patient care: A scoping review.

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Introduction

Generally agreed to be a separate entity from comorbidity or multi-morbidity, patient complexity is deemed to arise from the social and contextual factors that impact health outcomes. Patient complexity assessment tools (PCATs) are utilized to collect vital information to effectively deliver care to patients with complexity. While there are a number of PCATs that have been developed to meet the needs of various patient populations, there is no such tool to address the health needs of Indigenous peoples. Having PCATs that address complexity among Indigenous patients arising from longstanding and permeating impacts of colonization and identify appropriate pathways to health equity is in alignment with the Truth and Reconciliation Commission of Canada's Calls to Action. The extent to which existing PCATs address and engage the realities of Indigenous patients remains unknown. The purpose of this study was to identify PCATs that include the inquiry of domains relevant in the care of Indigenous patients with complexity.

Method

A scoping review was performed on articles published between 2016 and 2021 to extend a previous scoping review of PCATs. A scoping review was purposefully chosen to identify existing PCATs due to the emergent nature of patient complexity and its evolving conceptualization. Existing tools were assessed in terms of the domains they included, including the extent to which they addressed the social realities faced by Indigenous patients.

Results

Only 6 items from 5 tools tangentially addressed the domains of social realities relevant to Indigenous patients.

Implications

This scoping review identifies a major gap in the utility and capacity of PCATs to address the realities of Indigenous patients. Future research should focus on developing tools to address the needs of Indigenous patients and improve health outcomes.

Partnering with Māori whānau to address inequities to pain management - A qualitative case study

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Background

Persistent pain disproportionately affects Māori individuals and their whānau (family and significant others), as Māori adults are 20% more likely than non-Māori adults to report persistent pain. Māori experience significant inequities in accessing primary and tertiary pain management services, thus we need culturally accessible and safe approaches to deliver pain services.

Aims

(1) co-design and pilot-test an initial version of the whānau-focused pain management programme (PMP) in Māori with persistent pain; (2) evaluate the clinical and process outcomes of the whānau-focused PMP.

Methods

This is community-based participatory action research (PAR) guided by a Māori centred research approach, both of which uphold community engagement and empowerment. The Tū Kotahi Māori Asthma & Research trust (Tū Kotahi) identified the research aim and I'm working with our Māori community partner from Tū Kotahi supported by Kaumātua from Kokiri Marae, throughout the research process. Our previous co-design study with Tū Kotahi whānau living with persistent pain identified the need for a whānau-focused PMP. Based on these inputs, a 6-week whānau-focused PMP (July - August 2021) was implemented in Kokiri Marae. Whānau interviews were analysed using the General Inductive Approach.

Results: Eight whānau living with persistent pain participated in the 6-week programme. Te Whare Ta Pa Whā (the four cornerstones of Māori wellbeing) was used as a holistic framework focusing on the whānau wellbeing as a collective instead of the individual living with pain. Analysis from whānau interviews suggests an enhanced understanding of persistent pain mechanisms (e.g. pain as an overprotective sensory system response) and provided whānau with "more tools to manage" their pain including Rongoā (traditional treatment).

Conclusions

In line with the proposed Aotearoa New Zealand health system reform, this community-based PMP is a commitment to Te Tiriti obligations to address health inequities for Māori and a result of an ongoing meaningful partnership.

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Supplementing administrative data with clinical registries: an example using total hip (THA) and total knee arthroplasty (TKA) readmission rates for hospital performance measurement

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Introduction/background

Readmission rates following total hip or knee arthroplasty (THA/TKA) are influenced by factors that are not captured in administrative data used for hospital performance measurement. We examined whether the inclusion of clinical registry information improves the predictive ability of models currently used to monitor hospital performance metrics.

Population/setting

Patients aged ≥18 years, admitted for THA/TKA in public hospitals in New South Wales between 1 July 2016 and 30 June 2018.

Method

Hospital records were linked with the Australian Orthopaedic Association National Joint Replacement Registry data (AOANJRR). Information from the registry included body mass index (BMI) and American Society of Anaesthesiologists Physical Status score (ASA). We used stepwise multilevel logistic regression to model the 30-day post discharge all-cause readmission.

Results/Findings

A total of 5855 THA and 10183 TKA patients underwent surgery, of whom 430 (7.3%) THA and 837 (8.2%) TKA patients were readmitted within 30 days of separation from acute care. Recording of patients' overweight/obese status was higher in the AOANJRR registry (76.9% of THA and 87.0% of TKA patients) than in hospital diagnosis codes (10.6% of THA and 16.5% of TKA patients). Modelling found modest improvements in the discriminatory accuracy with the addition of registry data (ASA for THA, ASA and BMI for TKA), even after adjusting for comorbidity. After risk adjustment, less than 1.4% of the variation in 30-day readmissions was attributable to the hospital where the procedure was performed.

Implications

Inclusion of registry data, especially ASA scores, improves risk adjustment for hospital readmission performance measures for THA/TKA, demonstrating the potential benefits of integrating registry and administrative datasets. Reductions in readmissions following joint replacement surgery are most likely to be achieved by interventions that are targeted toward patients at high risk of readmission, rather than focused at the hospital level.

D3: Using Data to get better health outcomes for Māori

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Introduction/background
The presentation discusses final results from a Health Research Council NZ funded study aimed to understand how Māori-specific health utilisation or indicators data could be better utilised in health services planning for Māori health development.

Population/setting
The study, conducted over four phases, explored how data was used by individuals in positions of influence (i.e. "decision-makers"), to improve health services for Māori. These "decision-makers" included District Health Board (staff and governance) and community members both Māori and non-Māori.

Method
The three-year Kaupapa Māori research project was conducted over four phases using participatory action research methods within a case study design. The research addressed the following objectives:
1. Explored the challenges of data-driven health service improvement for Māori;
2. Showcased positive examples of data generation and utilisation; and
3. Provided learning opportunities for our provider partners in the research, and other key decision- makers at local and national levels.

Results/findings
Even the 'simplest' case example doesn't demonstrate ability of data and decision-making alone to shift services and outcomes for Māori

Expertise in addressing equity for Māori is not the same as epidemiological or clinical expertise.
Māori world view is not currently valued beyond rhetoric - not translated or 'operationalised' in a meaningful way.

Māori skills and knowledge are not appropriately recognised or respected.

Health systems evolve for the people (clinicians & Pakeha) that work in them, while they continue to fail to work for either Māori staff or Māori patients.

Māori are employed to meet the needs of the 'system' and blamed when it doesn't work.
Implications/key message

The collection of Māori-specific data is important but must be followed by involving Māori in data interpretation, problem identification, and decision-making regarding service changes.

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Analysis of data items and gaps in administrative collections of health services activity and capacity data: a case example using mental health services data

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Background

Health service reform requires reliable data on utilisation, resourcing and outcomes. In Australia, there has been significant work to develop and implement standardised administrative collections of health services data, including for a range of mental health services. Given this level of investment, it is important that collected data is fit for purpose. Using mental health services data as a case study, we aimed to identify data gaps and duplications to inform future data development for regional service planning.

Methods

A systematic grey literature search was conducted to identify standardised national collections of mental health services activity (e.g., occasions of service) and capacity data (e.g., full-time equivalent staff) across primary care, specialist bed-based and community services, and psychosocial supports in Australia. We analysed metadata and data to determine collected activity and capacity data, and data gaps.

Results

We identified 20 national collections of administrative mental health services activity and capacity data. Workforce data was often not collected. Where workforce data was collected, it was often not comprehensive in terms of the staff types represented. Expenditure or funding data was often not collected; exceptions were expenditure associated with services subsidised by the Medicare Benefits Schedule, funded by the National Disability Insurance Scheme, or related to overall service units or organisations. Some data collections that appeared comprehensive were limited in utility as they did not include key activity data (i.e., occasions of service). In several instances where data was not explicitly collected, other collected data could be used as a proxy. Unlike other service sectors, there was no national, mandated data collection for psychosocial support services.

Implications

Recommendations for data development focus on filling gaps in workforce data and mandating standardised reporting requirements for all psychosocial supports to allow collection of more detailed data that are pertinent to regional service planning.

Adherence to antihypertensive medications and the risk of vascular events and hospitalised falls after stroke: A real-world study using linked registry data

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Introduction

Antihypertensive medications are recommended after stroke to reduce the risk of major adverse cardiovascular events (MACE). However, there is conflicting real-world evidence on whether adherence to antihypertensive medications increases the risk of falls. We aimed to assess the association of adherence to antihypertensive medications on the incidence of MACE and hospitalized falls after stroke.

Methods

Observational study using person-level data from the Australian Stroke Clinical Registry (2012-2016; Queensland and Victoria) linked to administrative health records. We included patients with stroke who survived >6 months post-discharge and had newly initiated antihypertensive medications (i.e. no medication in the 90 days before stroke). Using Pharmaceutical Benefits Scheme data, we calculated the proportion of days covered (PDC) by antihypertensive medications in the 6-month period post-discharge (PDC ≥80% defined as being adherent). Outcomes between 6 and 18 months post-discharge included: i) MACE, a composite outcome of all-cause mortality, recurrent stroke or acute coronary syndrome; and ii) hospitalized falls. Estimates were derived using Cox models, adjusted for >30 confounders using inverse probability treatment weights.

Results

Among 4076 eligible participants (median age 68 years, 37% female), 2238 (55%) were adherent to antihypertensive medications within 6 months post-discharge. In the subsequent 12-month period, there were 360 MACE events (11% in non-adherent vs 7% in adherent participants) and 337 hospitalised falls (10% in non-adherent vs 7% in adherent participants). After achieving balance between groups, participants who were adherent to antihypertensive medications had a reduced risk of MACE (hazard ratio [HR]: 0.68; 95% CI: 0.54-0.84) and hospitalized falls (sub-distribution HR: 0.78; 95% CI: 0.63-0.98) than those who were non-adherent.

Implications

Adherence to antihypertensive medications within 6 months poststroke was associated with a reduced risk of MACE and no increased risk of hospitalized falls. Survivors of stroke should be supported to maintain adherence to their antihypertensive medications.

In-hospital outcomes among public and private patients undergoing percutaneous coronary interventions for acute myocardial infarction in New South Wales public hospitals

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Background
International evidence suggests patients receiving cardiac interventions experience differential outcomes by their funding status, with private patients often having lower rates of mortality than public patients. While Australia has universal healthcare, the number of privately-funded public hospital admissions are growing. We investigated if private health insurance is associated with differential outcomes of care among patients in public hospitals admitted with acute myocardial infarction (AMI) undergoing Percutaneous Coronary Interventions (PCI), the most common revascularisation procedure.

Population/ setting
Patients aged 18+ years admitted to New South Wales public hospitals with a principal diagnosis of AMI and undergoing their first PCI from January 2017 to December 2020.

Methods
We examined differences in hospital acquired complications (HACs), admission length of stay (LOS) and in-hospital mortality among propensity score-matched private and publicly-funded patients. Matching was based on sociodemographic (e.g. age, sex, remoteness), clinical (e.g. STEMI/NSTEMI, co-morbidities), admission (e.g. emergency status) and hospital-related (e.g. peer group, volume of PCIs) factors.

Results
18,171 AMI patients receiving a PCI in public hospitals, of which 29.7% were private patients. In our propensity-matched cohort (n=10,566), we did not observe significant differences in the overall probability of HACs (OR: 0.96, 95% CI: 0.84-1.11) or LOS (mean difference 0.12 days, p-value=0.234). However, private patients had lower rates of in-hospital mortality than public patients (OR: 0.62, 95% CI: 0.47-0.81). We obtained similar results when excluding patients transferred to another hospital for their PCI.

Implications
While private PCI patients had lower in-hospital mortality rates than similar public patients in public hospitals, the similar rates of in-hospital complications and average LOS do not suggest inequities in the in-hospital care received. Understanding further reasons for this discrepancy, such as access to differential care pathways through health insurance, and potential delayed access to treatment, are needed to improve equity in these health outcomes.

Adenotonsillectomy and adenoidectomy in children: the impact of timing of surgery and post-operative outcomes

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Background

Adenotonsillectomy (ADT) and adenoidectomy (AD) are the most common operations performed in children. We investigated the impact of these operations on child health and evaluated their post-operative complications.

Population

We included all children aged <16 years undergoing ADT (tonsillectomy +/- adenoidectomy) or AD in New South Wales, Australia, 2008-2017.

Method

Health information was obtained from administrative hospitalizations data. Rates of post-operative complications and reoperation were evaluated using generalized estimating equations and Kaplan-Meier methods, respectively.

Results

Of 156,500 included children, 112,361 had ADT and 44,139 had AD. Population rates increased during 2008-2017 (ADT: 68 to 79 per 10,000 children; AD: 25 to 34 per 10,000), and children were increasingly operated on at a younger age. Overall, 7,262 (6.5%) and 1,276 (2.9%) children had post-operative complications (mostly haemorrhage), and 4,320 (3.8%) and 5,394 (12.2%) required reoperation, following ADT and AD, respectively. Complication rates were highest among children aged 0-1 years, lowest for those 2-5 years and increased with age thereafter. Three-year reoperation rates for children aged 0-1 years were 9.0% and 25.9% following ADT and AD, respectively, decreasing thereafter to 0.5% and 2.1% in children aged 12-13 years.

Implications

Adenotonsillectomy and adenoidectomy in Australian children have both increased in frequency and are being done at a younger age. Post-operative complications and re-operation rates highlight surgery is not without risk, especially for children under two years old. These findings support a more conservative approach to management of upper respiratory symptoms, with surgery reserved for cases where potential benefits are most likely to outweigh harms.

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Impact of digital maturity on health system outcomes in Queensland

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Introduction and background

Queensland Health, the University of Queensland and Queensland University of Technology in partnership with Healthcare Information and Management Systems Society (HIMSS), conducted a digital maturity evaluation in Queensland using HIMSS's Digital Health Indicator (DHI). Digital maturity and electronic medical record (EMR) implementation data can be investigated across Queensland. Research was conducted to provide an insight into the impact of digital maturity on routinely collected healthcare performance measures, with the following research question: How does digital health maturity influence health system outcomes?

Method

An observational, retrospective quantitative study of routinely collected hospital performance measures was conducted. As digital maturity and EMR implementation were investigated, the approach to analysis involved two scenarios. Scenario 1 involved an observational comparative point prevalence analysis to summarise the outcomes between sites of varying digital maturity as measured by the DHI (score 0-400), conducted for each health service in Queensland (n=16) in Q3-4 FY 2020-2021. Scenario 2 involved a longitudinal pre/post study to analyse the impact of digitising healthcare services on outcomes, based on the implementation of the ieMR, and was conducted at EMR advanced digital hospitals (n=13).
For both scenarios the outcomes include:

1. Staff retention: Staff leave; staff turnover
2. Healthcare delivery capacity: Inpatient length of stay; episodes of care
3. Clinical outcomes: Hospital readmissions; mortality; falls in hospital causing significant injury; hospital associated infections; medication complications

Data were extracted, analysed statistically using Pearson and Spearman correlation tests and Wilcoxon signed rank tests, and statistical significance was calculated.

Results

Data analysis and reporting is near completion. The impacts of EMR implementations and digital maturity will be reported at the conference. This is the largest known analysis of health system outcomes related to EMR implementation. The research provides an evidence based assessment of the impacts of digital maturity upon health system outcomes.

Health System Performance Variation: A Population-based Study on Amenable Mortality in New Zealand

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Introduction
Amenable Mortality (AM) is often used as a proxy indicator for comparisons of health system performance. This study explores the District Health Board (DHB) level variation in AM rates in New Zealand.

Methods
We obtained a population dataset from 2008-2018 and defined AM as all registered deaths for those aged <75 years at the time of death, where the primary cause of death code is listed in the Ministry of Health's AM code lists. We estimated the adjusted inter-cluster correlation coefficient (ICC) with the DHB as a random effect variable, adjusted odds ratio, and predicted AM over the years and across the DHBs. The covariates included are age, gender, prioritized ethnicity, deprivation, rurality, human resource, and financial expenditure.

Results
The adjusted ICC with DHB as a cluster variable was less than 1.0% (ICC = 0.008). The adjusted odds ratios of AM in a DHB ranged from 0.88 (95% CI, 0.79, 0.99) to 1.79 (95% CI, 1.63, 1.95) across the DHBs. The proportion of the variations explained by the fixed-effect variable set used in the mixed effect adjusted model is 61.9%. In recent years, AM at the national level reduced significantly in 2016-18, OR=0.79(0.72 to 0.88), compared to 2008-09, although no consistent trend is evident over time or between DHBs. Overall, ethnicity followed by deprivation status demonstrated the strongest association with the adjusted risk of AM.

Key message
The variables used in the analysis explained more than half of the variability of AM between districts. The differences between DHBs, particularly in narrowing the gaps between the Māori and non-Māori non-Pacific in recent years, may reflect the differential performance of the DHBs in the effective implementation of the healthcare interventions in ANZ, but health policymakers should be cautious in the use of AM as a proxy for health system performance.

Session 4D: Provision of medicines

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The FreeMeds study: Exploring the impact of $5 prescription charges on hospitalisations

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Background

Although prescription charges in NZ are low compared to other countries, many Māori, Pacific peoples, and people facing socio-economic disadvantage report going without prescription medicines because of cost. The FreeMeds study was a randomised controlled trial of exempting people from the standard $5 per item prescription charge.

Population/setting

We recruited 1061 people who lived in areas of high socioeconomic deprivation, and either took medicines for diabetes, took antipsychotic medicines, or had chronic obstructive pulmonary disease (COPD). These were chosen as proxies for low income and high need for medicines.

Method

Participants were individually randomized (1-1 ratio) to either be exempted from the standard $5 charge per prescription item for all medicines for one year (2019-2020) (n= 591) or usual care (n=469). Data on hospitalisations was accessed from Ministry of Health datasets.

Results

There was no statistically significant reduction in the primary outcome, hospital bed-days (IRR=0.68, CI: 0.54 to 1.05). However, apart from all-cause mortality and diabetes length of stay, all measures were better for the intervention group than the control group. Participants in the intervention group were significantly less likely to be hospitalised during the study year than those in the intervention group (OR=0.70, CI: 0.54 to 0.90). There were statistically significant reductions in the number of admissions for mental health problems (IRR=0.39, CI: 0.17 to 0.92), the number of admissions for COPD (IRR=0.37, CI: 0.16 to 0.85), and length of stay for COPD (IRR 0.20, CI: 0.07 to 0.60).

Implications

Even a small co-payment may deter people from picking up medicines that reduce their risk of being hospitalised. Given the small amount of revenue gathered from the charges, and the comparatively large costs of hospitalisations, the results suggest that these charges may lead to poorer outcomes for increase the overall cost of healthcare.

Using Incrementalism and Legitimacy to Ensure Acceptable Use of Post-Market Data Collection, Market Withdrawal and Disinvestment as Components of Accelerated Access

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Background

Provisional marketing approval allows medicines to be approved on the basis of earlier data, with post-market data collection used to confirm their safety and effectiveness. Similarly, “managed entry agreements” allow medicines to be listed on the PBS while further data is collected to determine their cost-effectiveness and ongoing subsidy. Timely and robust post-market data collection and regulatory withdrawal/disinvestment procedures underpin both initiatives.

Setting

This study explored the beliefs of patients and physicians from Sydney, NSW regarding post-market data collection and regulatory withdrawal/disinvestment as components of accelerated access. Both patients and consumers were from medical specialties and disease areas in which accelerated access is most actively discussed.

Methods

Semi-structured interviews were conducted with 18 Australian physicians and 13 patients and patient advocates; two focus groups were conducted with patients. These were transcribed verbatim and analysed thematically.

Findings

We identified significant diversity in stakeholder opinion, with three “types” of attitudes amongst physicians—Confident Accelerators, Cautious Accelerators and Opposed to Acceleration. Although all acknowledged potential risks and benefits of increased reliance on post-market data collection, market withdrawal and disinvestment, they disagreed on their magnitude and extent and how these should be balanced in both policy formation and clinical practice. Meanwhile, consumers recognised both potential benefits and expressed a willingness to contribute data. Post-market data collection, coupled with swift and decisive action by regulators and funders, were seen as necessary to address risks, but not all participants were confident this could be achieved. The importance of procedural factors—such as transparency, relevant expertise and thorough consideration of evidence—was emphasised.

Implications

Stakeholder analysis shows a range of reasonable views on how to respond to calls for increased reliance on post-market data collection, market withdrawal and disinvestment as part of accelerated access. Incremental policy change can maintain the benefits of current systems while providing faster access to new medicines where this is needed most. However, not all substantive positions can be accommodated. A focus on fair procedures will increase legitimacy and increase the acceptability of decisions about accelerated access to medicines. I offer a number of practical suggestions to achieve both legitimate and incremental policy making in regards use of post-market data collection, market withdrawal and disinvestment in decisions about access to medicines.

Nephrotoxic medication and the development of acute kidney injury in hospital

Associate Professor Ling Li[1], Dr Jannah Baker[1], Dr Kasun Rathnayake[1], Dr Sradha Kotwal[2], Prof Johanna Westbrook[1], Prof Richard Day[3], Prof Zoltan Endre[3]
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Introduction

Acute kidney injury (AKI), previously known as acute renal failure, affects an estimated 22% of adult and 34% of paediatric inpatients worldwide during a hospital episode of care. AKI among hospitalised patients is associated with increased morbidity and mortality. Exposure to nephrotoxic medication may contribute to development of AKI and patient outcomes. This study aimed to examine associations 1) between administration of nephrotoxic medication and subsequent development of AKI; and 2) between potentially medication-related AKI and patient outcomes.

Method

This retrospective cohort study included patients admitted in 2015 to a tertiary hospital in Australia. Nephrotoxic medication and timing of administration were recorded and extracted from clinical information systems. A laboratory algorithm was applied to retrospectively identify AKI cases based on serum creatinine levels. Multilevel regression models were applied with adjustment for patient and administration characteristics.

Results

A total of 11,503 admissions from 8,111 patients were included in the study. Among these admissions, 59.6% (n=6,856) involved administration of nephrotoxic medication and 637 (5.5%) subsequently developed AKI. There was no evidence of association between administration of nephrotoxic medication and subsequent development of AKI (OR 1.02, 95% CI 0.87 - 1.19) after adjusting for patient demographic characteristics and other relevant comorbidities. On the other hand, patients with potentially medication-related AKI were 11.89 times more likely to die (95% CI 8.02-17.63) and stayed 3.24 times longer in hospital (95% CI 3.03-3.48), compared to those with no AKI development.

Implications

Using rich dynamic electronic health record data, this is the first Australian study to investigate the association of nephrotoxic medication with the development of AKI. Despite no association being found between nephrotoxic medication and the development of AKI, medication-related AKI was associated with high in-hospital mortality and increased stay in hospital. Clinicians may need to take extra precaution when prescribing nephrotoxic medications.

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Can nudges improve antibiotic prescribing in primary care?: a systematic review

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Introduction

Inappropriate antibiotic use in primary care is high. Efforts to reduce antibiotic prescribing in this setting have predominantly focused on point-of-care testing, shared decision-making, and education strategies. However, these interventions do not address the behavioural factors that influence decision making. Nudges, from the field of behavioural economics, alter choice environments to achieve behaviour change, and are an approach increasingly being applied in healthcare. We conducted a systematic review to assess the effectiveness of nudge interventions to reduce antibiotic prescribing in primary care.

Population

Primary care physicians.

Methods

Searches were conducted to identify all randomised trials or regression discontinuity studies assessing interventions in primary care to reduce or improve antibiotic use. At full-text review, interventions were assessed to determine whether they were a nudge. Nudges were categorised according to a taxonomy. A promise ratio (PR) was calculated for each category of nudges and for features of social norm nudges (e.g. frequency of feedback). A PR was the count of all studies that showed a statistically significant favourable change in one or more outcomes evaluated, divided by the number of studies with no favourable change in all outcomes. A PR≥2 was considered promising.

Results

Sixteen studies, testing 22 nudge interventions, were eligible. Four categories of nudges were evaluated. Social norms (n=16; PR=3.3) and changing option consequences (n=3; PR=2) were promising (PR=3.3). Facilitating commitment was used in a single study which had a positive effect, but providing reminders was not promising (n=2; PR=1). Implementation features of social norm nudges, such as targeting all prescribers vs high prescribers, or the frequency of feedback, likely played an important role in intervention effects.

Implications

Nudges are a promising approach to improving antibiotic prescribing in primary care. There is scope for further exploring nudges other than social norms in this setting.

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Patterns of opioid dispensing and associated wage replacement duration in workers with accepted claims for low back pain: a retrospective cohort study.

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Introduction
When unable to work due to low back pain a worker may seek income support and funding for healthcare from an income support system such as workers' compensation. Clinical practice guidelines recommend opioids for low back pain are only used for a short duration, at a low dose and with a plan to cease use. This study aimed to identify patterns of opioid dispensing in Australian workers with low back pain and determine the association of dispensing patterns with wage replacement duration.

Population
Compensated Australian workers.

Methods
Australian workers' compensation claimants with low back pain and at least one day of wage replacement were included. We used group-based trajectory modelling to identify opioid dispensing patterns over a two and half year period from reported low back pain onset. Quantile regression was then used to compare wage replacement duration between each dispensing pattern group.

Findings
One third of workers with low back pain (N=3205, 33.3%) received at least one opioid dispense during their claim. Three dispensing patterns were identified. The majority had a short-term low-volume opioid dispensing pattern (N=2166, 67.6%), while 798 (24.9%) had a long-term moderate-volume pattern and 241 (7.5%) had a long-term high-volume pattern. Workers dispensed opioids had significantly longer wage replacement duration than those not dispensed opioids (median (weeks): 63.6 versus 7.1 respectively). In addition, moderate- and high-volume long-term dispensing had significantly longer wage replacement duration compared with short-term dispensing (median (weeks): 126.9, 126.0 and 30.7 respectively).

Implications
Our study found a high use of opioids for long durations among compensated Australian workers with low back pain. Multifaceted strategies to limit long-term use of opioids are needed. These could include implementation of clinical care standards and indicators that can be used to monitor and regulate opioid use, and implementing financial mechanisms to stem long-term opioid use.

Frequent general practitioner visits are protective against statin discontinuation after a pharmaceutical benefits scheme copayment increase

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Introduction

In January 2005, the Australian Government increased the consumer medication co-payment by 21%, the largest single increase in the Pharmaceutical Benefits Scheme's (PBS) history. Previous research found that this co-payment increase affected population-level dispensing of statins, which fell by 5% following the increase, and was associated with negative health outcomes. The aim of this study was to assess the association between the frequency of general practitioner (GP) visitation during the 12 months before the 2005 PBS co-payment increase and patients reducing or discontinuing their statins for tertiary prevention of coronary heart disease and stroke in the following year.

Method

This study comprised a retrospective cohort study using linked administrative Commonwealth (PBS) and State (inpatient, mortality) datasets for the Western Australian population for stable statin users. The frequency and regularity of GP visits was calculated in 2004 from Medicare data. Multivariate logistic regression models were used to determine the association between GP visits and statin use following the co-payment increase, controlling for demographic and clinical characteristics.

Results

In December 2004, there were 22,495 stable statin users for tertiary prevention. Following the co-payment increase, 3% discontinued, 12% reduced and 85% maintained statin use. Overall, individuals who visited a GP three or more times in 2004 had 47% lower odds of statin discontinuation in 2005 than people attending only once. The effect was primarily apparent in men and in both long-term or new statin users. The frequency of GP visits did not affect the proportion of patients reducing their statin therapy.

Implications

Patients who visited their GP at least three times per year were almost half as likely to discontinue statin therapy for tertiary prevention following a large PBS co-payment increase. This paper identifies the important role that GPs have in maintaining the continued use of medications following rises in medicines costs.

Validation of a Pharmacy High Needs Criteria; a tool to identify hospital inpatients at higher risk of medication-related problems

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Introduction/background
Australia's National Safety and Quality Health Services Standards requires health services perform medication reviews for patients to minimise risk of medication-related problems. How organisations determine priority for reviews is not stipulated. We developed a Pharmacy High Needs Criteria (PHNC) to identify patients most at risk of medication-related problems and conducted a validation study against indicators of medication safety; hospital medication-related incidents, medication-related ICD-10AM hospital coding, and 30-day readmission rates.

Population/setting
The study was conducted at a metropolitan public health service in Melbourne, Victoria. Adult patients meeting selection criteria during February 2020 were included.

Method
We conducted a retrospective cross-sectional observational study of inpatients admitted during 10/2/20 – 16/2/20. Researchers assessed patients against the PHNC, denoting 'high needs' (HN) for those meeting criteria and 'low needs' (LN) for those who did not. Frequency of medication safety outcomes was determined by data linkage with medication-related clinical incidents reported via Victorian Health Incident Management System, clinical documentation and admission data coding as submitted to the Victorian Admitted Episodes Dataset.

Results/findings
Seven hundred and sixty-one patients were included in the study, 71% of which were 'high needs'. HN patients had more medication related ICD-10 coded diagnoses (15% vs. 7.6% $p<0.01$) and more hospital medication related incidents though this did not reach statistical significance (3.9% vs. 1.4%,$p=0.07$). HN patients were more frequently readmitted to the health service within 30 days of discharge (29% vs. 21%,$p=0.01$).

Implications/key message
Our study validates the ability of the PHNC to identify hospital inpatients at higher risk of medication-related problems. We used data sources already embedded within Australian healthcare organisations, making our methodology suitable for validating other prioritisation tools used to address national safety standards. The PHNC enables organisations to prioritise medication review by pharmacists and direct finite resources to where it is most impactful.

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Patient-reported difficulties accessing pharmaceutical opioid prescriptions among Australians with chronic non-cancer pain

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Background

Strategies to reduce opioid-related harms include restricted prescribing criteria for new and ongoing treatment of pain. Concerns have been raised that people with chronic non-cancer pain (CNCP) may be adversely affected by prescribing restrictions. We describe reported difficulties obtaining opioid prescriptions by people using opioids for CNCP and explore associations with demographics, treatment characteristics, substance use disorder (SUD), and opioid dependence.

Population

A cohort of 1,514 Australians using restricted opioids for CNCP were interviewed annually for five years.

Methods

At Year-5, participants reporting past 12-month opioid use were asked about difficulties obtaining opioid prescriptions, including problems accessing a regular doctor or having new doctors refusing prescriptions (doctor-related) or having opioids reduced involuntarily (tapering-related). Associations between difficulties and demographics, types of opioids used and total daily dose (as oral morphine equivalent), history of SUD, and pharmaceutical opioid dependence were assessed.

Results

The Year-5 interview was completed by 1125 participants: 861 answered difficulties questions. Of these, 285 (31%) reported at least one difficulty obtaining opioid prescriptions; 128 reported two or more difficulties. A doctor-related difficulty was reported by 195 participants (23%). Reporting a doctor-related difficulty was associated with age (adjustedOR 0.94, 95%CI 0.93-0.96), any morphine use in the previous 12-months (adjustedOR 1.76, 95%CI 1.08-2.82), and meeting opioid dependence criteria in the previous 12-months (adjustedOR 3.00, 95%CI 1.78-5.08). Tapering-related difficulties were reported by 73 participants (9%); odds of reporting this difficulty were twice as high among participants with a lifetime SUD diagnosis, and current daily opioid doses of ≥200mg. Other difficulties were described by 112 participants.

Implications

One-third of participants reported experiencing difficulties obtaining prescriptions for opioids. In a number of cases, difficulties may have related to doctors responding to excessive doses or suspected dependence; however, future strategies to reduce opioid-related harms must consider the impacts on people using opioids for CNCP.

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Uptake of team care arrangement plans for people with cancer

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Introduction

Many people with cancer have complex health conditions, due to the cancer itself or other comorbidities. There is consensus to move towards holistic patient-centred care with coordination across the health care system.

Methods

We quantified the uptake of Medicare Benefits Schedule (MBS) subsidised Team Care Arrangement (TCA) plans led by general practitioners (GP) for people diagnosed with cancer in NSW, 2006-16.

We examined the 45 and Up Study cohort (recruited 2006-2009; n=267,153) linked to NSW Cancer Registry, NSW Admitted Patients Data Collection, NSW Emergency Department Data Collection, and NSW Registry of Births, Deaths and Marriages data[1]; and to MBS and Pharmaceutical Benefits Scheme data.[2],[3] We used Cox proportional hazards modelling to identify factors associated with the receipt of a TCA after cancer diagnosis. We also analysed the number and type of Medicare-subsidised allied health visits up to 24 months after the TCA.

Results

We identified 13,951 individuals with no TCA plan in place and an incident cancer diagnosis after cohort enrolment. Over a median of 24 months, 6,630 (47.5%) had a TCA plan initiated. Factors associated with TCA uptake included being female (HR 1.2 [1.16-1.28]), older 1.35 (1.26-1.45), living in socioeconomically disadvantaged areas 1.19 (1.13-1.26), lower attained education 1.11 (1.05-1.18), more frequent GP visits in the year prior to diagnosis 1.41 (1.33-1.49), ≥3 comorbidities 1.30 (1.20-1.42), and no private health insurance 1.28 (1.17-1.39). 62% of patients with TCA had at least one Medicare-subsidised allied health visit, with physiotherapy and podiatry predominating.

Key message

Cancer patients who are more vulnerable, with chronic conditions, appear more likely to receive a TCA, reflecting the intended implementation of the scheme. Not all patients subsequently obtained allied health care.

1 Via Centre for Health Record Linkage
2 Provided by Services Australia (formerly Department of Human Services)
3 Data accessed via Secure Unified Research Environment

He Tapu Te Whare Tangata (the sacred house of humanity): Learning from Indigenous Māori women to inform Human Papillomavirus self-test based cervical screening services

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Introduction

Māori women face inequitable rates of cervical cancer morbidity and mortality. Many of these women find the current screening (cervical cytology) invasive, and, consequently, screening rates are significantly lower for Māori. Human Papillomavirus (HPV) causes most cervical cancers and new technology means women can self-test for HPV using a vaginal swab.

Population/setting

As part of a community-based cluster randomised controlled trial in rural New Zealand that examined the offer of a self-taken HPV swab for under-screened (no screen in >4 years) Māori women, we undertook a qualitative study to explore the experiences of these women.

Method

Twenty-eight Māori women who self-tested for HPV (22 negative; 6 positive/referral to colposcopy) were interviewed about their feelings about and perspectives of the HPV self-test clinical pathway. Sixteen health care practitioners involved in the service delivery were also interviewed. Data were analysed using thematic analysis.

Results

Women participants gave positive feedback about the self-test, citing a feeling of empowerment, and reported being more likely to re-screen with it. The six women who went to colposcopy described a lack of knowledge and resources available to them regarding HPV and the clinical pathway they were on. Consequently, they often felt scared and confused. The health care practitioners also spoke positively of the innovative HPV self-test, citing it as a way of reaching women who would otherwise not have equitable access to screening.

Implications

Our findings show HPV self-testing is an innovative, and highly accepted, way of increasing screening for under/never screened Māori women. It also raised the urgent need to upskill clinicians in their knowledge of HPV and how to support Māori on HPV-based cervical screening clinical pathways. As Māori have been disenfranchised by current screening services, we recommend that the transition and redesign of the screening programme be undertaken by, with, and for Māori.

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Patient health literacy correlates with times to diagnosis of head and neck cancer: a prospective cohort study

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Background

Health literacy (HL) refers to the skills and knowledge required to understand, access, and make decisions about healthcare. HL may impact timeliness of cancer diagnosis and treatment, but there is a dearth of research regarding this.

Aim

To explore correlations between domains of patient HL and time intervals along the pathway to treatment for patients with head and neck cancer (HNC).

Methods

Patients within six months of HNC diagnosis who underwent treatment at one of four sites in NSW were invited to participate. Patients completed two questionnaires: 1) an assessment of their pathway to treatment of HNC (adapted from an instrument developed by the International Cancer Benchmarking Partnership) and 2) the Health Literacy Questionnaire® (HLQ®), a 44-item validated tool to assess HL across nine domains. Data on dates and events were cross-checked with medical records, and dates allocated according to an established hierarchy. Non-parametric correlations were assessed using Spearman's rank-order correlation coefficient.

Results

From October 2018-March 2020, 95 patients (63% male, mean age 65 years) completed both questionnaires. The patient interval (symptom recognition to first healthcare practitioner (HCP) visit) was significantly negatively correlated with two HLQ® domains. The primary care interval (first HCP visit to specialist referral) was significantly negatively correlated with two HLQ® domains. The diagnostic interval (first HCP visit to diagnosis) was significantly negatively correlated with five HLQ® domains. The treatment interval (diagnosis to treatment) was not correlated with any HLQ® domain. Domains 2 (sufficient information to manage health) and 8 (ability to find good health information) were most strongly correlated with the above time intervals.

Conclusion

Higher levels of HL, especially the ability to find and use health information, correlates with shorter times to HNC diagnosis. Health systems/policy should provide additional support for patients with low HL to reduce disparities in timeliness of various intervals.

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Fear of cancer recurrence: impact on healthcare resource use and cost-effectiveness of treatment. A systematic review

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Background

Fear of cancer recurrence (FCR) is a common and burdensome psychological condition affecting cancer survivors. This systematic review aims to synthesise current evidence regarding: 1) FCR-related healthcare usage and costs; and 2) the cost-effectiveness of FCR treatments.

Method

We searched MEDLINE, CINAHL, Cochrane and other electronic databases using MeSH headings and keywords for cancer, FCR and costs from their inception to September 2019. Identified studies were screened for eligibility. Original, peer-reviewed journal articles reporting quantitative data from samples of adults treated for cancer written in English were included. Quality was appraised using the Drummond checklist for economic evaluations or the relevant Joanna Briggs Institute Critical Appraisal Tool.

Results

Data from 11 studies were extracted and synthesised. Seven studies addressed the costs of FCR and suggested an increase in the use of primary and secondary healthcare. Four studies addressed the cost-effectiveness of different FCR treatments and suggest that some treatments may cost-effectively reduce FCR and improve quality of life. Reviewed treatments had an incremental cost-effectiveness ratio (ICER) between AU$3,233 and AU$152,050 per QALY gained when adjusted to 2019 Australian Dollars. All studies were of sufficient quality to be synthesised in this review.

Implications

FCR appears to be associated with greater use of certain healthcare resources, and may be treated cost-effectively. Thus, appropriate FCR treatments may not only reduce the individual burden, but also the strain on the healthcare system. Further high quality research is needed to confirm this and ensure the future implementation of efficient and sustainable FCR treatments.

Development of an Age- and Comorbidity- Adjusted Optimal Radiotherapy Utilisation Rate for Patients with Lung Cancer

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Background

Optimal radiotherapy utilisation (RTU) modelling estimates the proportion of people with cancer who would benefit from radiotherapy. Previous research has estimated that the optimal RTU for patients with lung cancer is 76%. Older adults with cancer may have comorbidities which impact on physiological reserve and affect radiotherapy recommendations. We aimed to develop an age- and comorbidity- adjusted optimal RTU model for patients with non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC).

Population and Methods

New South Wales Cancer Registry data (2010-2014) linked to radiotherapy data (2010-2015) and hospitalisation data (2008-2015) was used to determine the number of patients diagnosed with NSCLC and SCLC. The Cancer Specific C3 ‘all sites’ index was derived from hospital records for each patient to determine suitability for radiotherapy and used to determine a cut-off for treatment eligibility (2). The population-level estimates were incorporated into an established lung cancer decision tree model to calculate the optimal RTU. The actual RTU was calculated using the linked datasets.

Results

14596 patients were diagnosed with NSCLC and 1839 patients were diagnosed with SCLC. For patients aged 80+ years, 3603 were diagnosed with NSCLC and 279 with SCLC.

For patients with NSCLC, the optimal comorbidity adjusted- RTU for NSCLC patients aged 80+ was 49% (C3). The actual RTU for NSCLC patients aged 80+ years was 25%.

For patients with SCLC, the optimal comorbidity adjusted- RTU for SCLC patients aged 80+ was 49% (C3). The actual RTU for SCLC patients aged 80+ years was 32%.

Implications/key message

For patients with NSCLC, and SCLC, the actual RTU was less than the optimal RTU, particularly for patients aged 80+ years. Further work is required to determine other reasons for the underutilisation of RT.

Melanoma surveillance on their own device: can patients identify subsequent new primary or recurrent melanoma? The incremental value of patient-led surveillance for detection of subsequent primary melanoma or recurrence: evaluation of a pilot randomised trial of alternative surveillance models following treatment of localised melanoma

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Background

Patients may lead their own surveillance for subsequent new primary or recurrent melanoma, but the comparative safety, feasibility and acceptability is unknown.

Setting

Two specialist-led clinics in metropolitan Sydney and a GP-run primary care skin cancer clinic in metropolitan Newcastle.

Methods

100 patients previously treated for localised melanoma were randomised (1:1) to six months of patient-led surveillance (intervention: usual care plus reminders to perform skin self-examination (SSE), patient-performed dermoscopy, teledermatologist assessment and fast-tracked unscheduled clinic visits) or clinician-led surveillance (control: usual care). The primary outcome was the proportion of eligible and contacted patients who were randomised. Secondary outcomes included patient-reported outcomes (SSE knowledge, attitudes and practice, psychological outcomes, other healthcare use) and clinical outcomes (clinic visits, skin surgeries, subsequent new primary or recurrent melanoma).

Results

Between November 2018 and May 2019, of the 326 patients who were eligible and contacted, 100 (31%) were randomised to patient-led surveillance (n=49) or clinician-led surveillance (n=51). Data were available on patient-reported outcomes for 66 participants, and on clinical outcomes for 100 participants. Compared with clinician-led surveillance, patient-led surveillance increased SSE frequency and thoroughness, had no detectable adverse effect on psychological outcomes, and increased clinic visits, skin lesion excisions, and subsequent melanoma diagnoses. New primary melanomas and 1 local recurrence were diagnosed in 8 (16%) intervention group participants and in 3 (6%) control group participants. All 5 detected at unscheduled visits were in the intervention group (risk difference:10%; 95%CI: 2% to 19%).

Implications

Patient-led surveillance may be a promising alternative follow-up treatment for localised melanoma as it appears safe, feasible and acceptable. A larger trial of the same intervention will evaluate the comparative effects on health, psychological and resource use outcomes and assess whether patient-led surveillance may be translated into policy and practice.

Evaluating the feasibility and acceptability of participation in registry-based randomised controlled trials among cancer patients and clinicians

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Introduction

Randomised controlled trial (RCT) is considered the “gold standard” for evaluating the effectiveness of interventions in clinical research. However, RCTs are complex, expensive, and have narrow eligibility criteria which limits generalisability. Registry-based randomised controlled trial (RRCT) is an alternative trial model that integrate the internal validity of RCT with the external validity of clinical registry by recruiting real-world patients and leveraging existing registry platform for data collection. As RRCT is a novel research design, there has been limited research on the feasibility and acceptability of RRCT in oncology. This study aims to explore cancer patients and clinicians’ perspectives towards participation in 3 RRCTs conducted in Australia.

Method

Thirty-five semi-structured interviews were conducted with 14 patients with colorectal, prostate or brain cancer, 15 clinicians and 6 clinical trial coordinators. Interviews were audio recorded and transcribed verbatim. The data were analysed using thematic analysis.

Findings

Two overarching themes were identified: 1) facilitators and barriers to recruitment and enrolment of patients in RRCTs; and 2) experiences of participating in RRCTs. For patients, altruism and “trust in clinician” were key reasons to participate in RRCT, despite limited understanding of its design and processes. For clinicians and clinical trial coordinators, RRCT study design were perceived as “simple and straight forward” given their broad eligibility criteria, but “less exciting” than RCTs. There were difficulties in enrolling patients due to low incidence rate, and competing commercially sponsored RCTs. There was limited impact on patients’ experiences and clinicians’ clinical processes given that the RRCTs explored variation of standard of care.

Implications

Whilst participants were generally supportive of participating in RRCTs, several barriers to effective RRCT implementation in oncology were identified. Developing strategies to maximise participation of patients and clinicians can help inform the design and implementation of RRCTs in Australia and internationally for oncology and other disciplines.

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How are patient preferences informing prostate cancer care? A scoping review of discrete choice experiments

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Background

Discrete choice experiments (DCEs) are an increasingly popular quantitative method to elicit patient preferences to inform patient-centred care. Although systematic reviews of preferences in some types of cancer or treatment modalities have been conducted, a synthesised understanding of the use of DCEs in prostate cancer has not been done.

Aim

This review aims to describe prostate cancer-related discrete choice experiments and to identify gaps and directions for future research.

Methods

We identified all prostate-cancer related DCEs from four systematic reviews of DCEs in health, covering 1990-2017. Data was extracted on study characteristics and methods, with quality assessed using the ISPOR checklist. Themes and gaps were identified.

Results

633 cancer-related DCEs were identified, nine of which were related to prostate cancer. Study characteristics and findings varied significantly across the DCEs, which addressed treatment (n=6), screening (n=2), and survivorship care (n=1). All studies, except those related to screening were conducted in patients or survivors, with one study also including practitioners. Prostate cancer patients valued survival and costs but were prepared to trade-off survival for reduced symptoms and improved quality of life. The attributes that influence screening decisions in both studies included avoidance of prostate cancer deaths, likelihood of biopsy and cost. Prostate cancer survivors, though under-studied, value continuity of care, face to face support, dietary advice, and prefer to see a GP for follow-up care.

Implications

Prostate cancer patient preferences are highly heterogenous but there is evidence that they are willing to trade between aspects of the health and care in the context of treatment, screening and survivorship care. Several important gaps in knowledge around patient preferences for prostate cancer care remain, and there is scope for further DCEs to inform the implementation of truly shared care.

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From teach-back to check-back: Co-design of an online learning resource for healthcare consumers

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Background

The health system places a significant burden on patients to understand and apply health information. Evidence indicates that frequently patients do not fully understand what clinicians tell them, nor can they later recall important information. Both factors can negatively impact patient adherence to recommended treatments and subsequent health outcomes.

Teach-back is an evidence-based approach that involves clinicians checking their patients' understanding by asking them to explain back information in their own words. However, the approach is not widely used by clinicians. A possible strategy to increase uptake of teach-back is for patients to initiate its use rather than relying on clinicians to do so. We aimed to co-design an online learning resource to build patients' confidence to initiate teach-back themselves when interacting with any health professional (i.e. to 'check-back').

Population/setting

The study was conducted with health consumers and clinicians across three Victorian health services.
Methods: This qualitative study used a structured co-design approach to develop the learning resource, with all stages guided by an Expert Panel comprising consumers and clinicians. The first stage identified barriers and enablers to patients' use of check-back, through focus groups/interviews with 39 consumers and 13 clinicians. Data were analysed using thematic analysis and findings used to inform content of the learning resource.

Results

The final version of the interactive resource is guided by a narrator, and includes videos, audio clips and a personal action plan (https://checkback.org/). Preliminary feedback from consumers indicates high usability and relevance.

Implications

Findings highlight the value of using co-design to develop a patient-centred resource. The check-back resource will be relevant for health services seeking to empower consumers to actively participate in healthcare interactions. This study provides a starting point for future research into consumer-led initiatives to improve patient-provider communication

Co-developing MOHMQuit (Midwives and Obstetricians Helping Mothers to Quit) – process, challenges and benefits

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Background

Guidance on developing complex health care interventions recommends designing and refining interventions using iterative cycles with stakeholder input throughout. We used the Behaviour Change Wheel (BCW) with extensive stakeholder engagement, to develop an intervention to improve provision of smoking cessation support (SCS) in maternity services in NSW.

Methods

The project was initiated by researchers and a senior midwife to address suboptimal implementation of SCS in maternity services. We followed the BCW method, involving stakeholders at multiple levels of the NSW Health system throughout the process. An initial meeting with policy makers led to establishment of an Advisory Group of clinicians, maternity care managers, policy makers and tobacco control experts. Broader stakeholder engagement included holding a workshop to review proposed intervention elements; working with tobacco control experts and midwives to design intervention resources; targeted meetings with policy makers; and testing the acceptability and feasibility of the intervention in a small pilot study, with further refinements.

Results

A robust multi-level intervention with high acceptability was developed. The Advisory Group provided advice and direction, assisted with implementation, ensured consistency with state policies, and specifically engaged us in state initiatives including changes to the electronic medical record system and development of new training modules for clinicians, both of which are integrated into MOHMQuit. Key challenges included managing timeframes; changes in stakeholder roles; and dovetailing with other new initiatives addressing smoking in pregnancy. Strong engagement with key partners enabled the navigation of these challenges and led to a successful NHMRC Partnership grant application to trial MOHMQuit.

Implications

Using the BCW method combined with strong stakeholder engagement from inception resulted in transparent development of the intervention which is developed specifically for the context in which it will be implemented. The intervention is being trialed in eight sites, including mainstream and Aboriginal maternity services, in NSW.

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Early supported hospital discharge for foot disease: a co-design study

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Background
More than 10,000 admissions each year in Australia are for diabetes-related foot disease, with an average length of hospital stay of 26 days. A 2017 Cochrane review found that for a number of conditions, early supported discharge improves patient satisfaction, reduces length of stay without increasing risk of 30-day readmission. This research aimed to gain consensus on an optimal model of early supported discharge for foot disease.

Population and setting
Hospital medical, nursing and allied health staff, and patients with diabetes-related foot disease.

Methods
Three focus groups were held in July-August 2019 where preliminary components for an early discharge model were created with staff and consumers. Two researchers independently systematically coded focus group transcripts using an iterative constant comparative method. Themes arising formed the basis of the first 'open' round Delphi survey where participants could also add additional. Participants rated the level of importance of each component in the second round. The final round allowed participants to adjust their rating based on group responses.

Results
There was a high consensus among the Delphi panel (≥80% of the panel) for 18 components. Of the highest rated components, full consensus was achieved on the development of comprehensive management plans prior to discharge. Additional consensus was achieved for items including multidisciplinary ward rounds, appointment of a care co-ordinator to oversee discharge and home care arrangements, development of an information package for GPs and ensuring appropriate offloading and footwear is in place prior to discharge.

Conclusions
Individuals with foot disease often present with a complex medical history that includes frequent and lengthy hospital admissions. A model of early supported discharge that would allow individuals to return home earlier in a way that is safe, acceptable, and feasible may result in improving patient satisfaction while reducing health system burden.

Codesigning a research priority setting agenda for people living with multimorbidity in a regional setting

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Background
Living with multimorbidity has significant health and social impacts for individuals and poses unique challenges for health systems. This project aimed to use co-design to identify research priorities for community dwelling adults in Tasmania living with multimorbidity.

Methods
The codesign process, informed by the Experience Based Co-Design Toolkit and the James Lind Alliance approach to priority setting, comprised a qualitative study with three phases: 1) Exploration - 21 interviews with consumers, supporters/carers and other stakeholders (researchers, health decision makers, health professionals), 2) Consultation - consumer and supporters/carers only workshop (N=8), 3) Integration - co-design workshop inviting members of all stakeholder groups (N=19). Interviews were analysed thematically. Themes informed the development of possible research questions under 8 topics. These were discussed in workshops, and priority topics and questions determined by vote.

Results
Consumers ranged in age from 34 – 84 years (Female=5, Male=4) with multiple health conditions. Consumer and other stakeholder priorities were generally aligned, although their timeframes for realisation differed. The highest priority research topic for consumers and other stakeholders was models of care. Priority questions included how models of care could be optimised to provide more holistic care, address symptoms common to many chronic illnesses, better address the psychological support needs of consumers and be more responsive to short- and medium-term fluctuations in needs. For each priority question, gender, younger age, geographic location and socioeconomic circumstances were important considerations. Otherwise, consumers prioritised research into strategies that would empower patients in communicating with health professionals while other stakeholders identified ensuring the translation of evidence of into practice.

Implications
Consumers, researchers and other stakeholders all wanted research that would build holistic, responsive models of care that would enable consumers to better manage their own health. These priorities could be considered by industry, research funders and researchers when considering research choices.

Bridging the gap: independent community health organisations engaging at-risk groups in Victoria's pandemic responses

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Introduction/background
Early in the pandemic, people in casual work, insecure housing, with low incomes, and/or difficulties accessing healthcare were shown to be at greater risk of COVID-19 infection and poor outcomes. The Victorian Government commissioned the C-19 Consortium to roll-out rapid response testing teams, community engagement, and vaccinations across Metropolitan Melbourne, to boost the agility, flexibility, responsiveness, and equitable reach of its pandemic measures, and rapidly manage outbreaks in multicultural communities and other at-risk groups.

Population/setting
A consortium of five independent community health organisations from Victoria (IPC Health [lead], cohealth, DPV Health, EACH, and Star Health), providing COVID-19 testing, messaging and vaccinations to at-risk groups, such as multicultural communities, people at risk of homelessness, and Aboriginal and Torres Strait Islanders, through fixed clinics, pop-ups, community outreach, and home visits.

Method
Evaluators from EACH and La Trobe University used mixed methods to describe the impact of the C-19 Consortium, and overall lessons learnt for future pandemic planning, including descriptive statistics of routine testing and vaccination data, establishment of a database for community engagement activities, focus groups to inform case studies, document reviews, observations, and key informant interviews (n = 6).

Results/findings
Between August 2020 and December 2021, the C-19 Consortium administered 126,189 tests, engaged 94,086 people, and delivered 281,316 vaccine doses (48.3% to people born outside of Australia). Critical strategies used by C-19 partners included trust and relationship building with community leaders and organisations, leveraging of internal services and extensive networks with government and hospitals, and tailoring activities and processes to local needs.

Implications/key message
Large, independent community health organisations can enhance the equity of health systems by bridging the gap between mainstream services and at-risk groups. Further pandemic management lessons were noted, in relation to commissioning, consistency and flexibility of practice, staffing for public health responses, and data-informed decision-making.

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Designing Support Structures Post Sepsis in Children: Perspectives of the Queensland Paediatric Sepsis Program

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Introduction

Paediatric post sepsis syndrome is poorly defined and causes physical, neurocognitive, psychosocial morbidity, and family dysfunction. Families of sepsis survivors report unmet needs during care. Worldwide, the provision of post sepsis care is in its infancy with limited evidence to design clinical support pathways.

Perspective

The Queensland Paediatric Sepsis Program (QPSP) developed a family support structure (FSS) to improve care during all stages of childhood sepsis. It was designed in partnership with consumers guided by information from consumers and it is partly delivered by consumers. Key areas include online, multimodal education for families and the ability to connect with other families affected by sepsis. The FSS is delivered by a multidisciplinary team (MDT) acting with clinicians local to the child. Families can join the FSS registry at any stage of their sepsis journey which connects them to our MDT team and opens opportunities to participate in future research and other initiatives. Improving public awareness is a critical outcome for our consumers and they have co-designed media and digital campaigns.

Discussion

The ideal FSS for post sepsis syndrome management is a clinical pathway designed in partnership with consumers of interventions proven to improve outcomes from sepsis that meets their requirements. The QPSP FSS is novel as it is co-designed with, and partly delivered by, consumers with interventions aimed to improve the entire spectrum of morbidities suffered by survivors and their families, not just physical sequelae. Evaluation is embedded in the program and outcomes will guide evolution of the FSS.

Get to know me – A Co-Designed Bedside Communication Board to Improve the Patient and Family Experience on a Paediatric Oncology Unit

Mr Connor Hawken[1,2], Miss Natalie Collins[1], Miss Sarah Kennewell[1], Miss Lily Rust[1], Dr Felicity Wright[1]
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Introduction

Poor communication between patients, families and nurses has potentially destructive consequences on the experience of hospitalised children and families. Acknowledging this negative impact provided motivation for a project that empowered children to be heard and provide families with a mechanism to advocate for their children through improved communication. The objective was to design and implement a co-designed communication board at the bed space in a paediatric oncology unit to improve the patient and family experience.

Setting

Two bays with 4 beds of the 21 bed inpatient paediatric oncology unit of Sydney Children's Hospital.

Method

Following consultation with patients, families and nurses a co-designed communication board was developed and implemented. Survey and audit data were collected using Quick Response (QR) codes; employing a Likert scale to measure the board's usefulness in communication, experience and engagement of patients, families and nurses. Data were analysed with descriptive statistics.

Results

Of the 27 patient, family and staff survey responses, reports indicated a favourable 8.4/10 rating in improving the patient and family experience and 8.2/10 rating in usefulness for nurses. The 53 audits indicated patient and family engagement was high (79%). However, nurse engagement was lower (25%), suggesting that nurses compliance with the communication boards varied and may be reflective ward culture or staff limitations. Identifying data such as name (87%), carer's name (87%) and pets or others important to me (85%), have the highest rate of completion.

Implications

This project highlighted the important role communication in the triadic relationship between patient, families and nurses plays in the experience of young people with cancer and their families. Findings support patients, families and nurses all contribute towards communication within the triadic relationship; Staff prefer clinical information, families and patients prefer personal information. Identifying barriers to communication post implementation could yield insightful data for further implementations.

Symposium 6: Co-designing an enduring national linked data asset for Australian health research

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Researcher perspectives and requirements for an enduring national linked data asset for Australian health research

Professor Claire Vajdic[1], Professor Louisa Jorm[1], Professor Deborah Lupton[1], Mr Vaughan Wozniak-O'Connor[1], Dr Amy Gibson[1]
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Background

Internationally, there is increasing use of linked routinely collected health care data to improve human health and health care outcomes. Australia is in a unique position globally due to our universal health care arrangements, and the routine collection of whole-of-system, population-wide datasets. Large-scale investments have delivered maturing data linkage infrastructure and trusted research environments to aid secure analysis. Legislation currently before the Australian Parliament will better authorise and regulate the sharing and use of Commonwealth public data, including for research. Nevertheless, Australian researchers lag their contemporaries in their ability to access and use high-value public sector health data for public good research. Access is achieved on a project-by-project basis following processes that are complex, lengthy and costly. There is no published information on the requirements and preferences of Australian researchers for content, governance and access arrangements for enduring linked data assets, or the trusted research environments in which they are accessed.

Methods and results

As part of the LINked Data Asset for Australian Health Research (LINDAHR; doi.org/10.47486/DP793) project, which has been funded by the Australian Research Data Commons (ARDC), we are ascertaining researchers' perspectives and requirements for an enduring national linked data asset for Australian health research. Four focus groups will explore researchers' needs and understandings of the vision, principles and implementation features of the data asset. These findings will inform question development for a large-scale online survey. This presentation will report our qualitative and quantitative findings on researchers' views on key features of the asset: datasets, data access, reproducibility, governance, management and sustainability.

Implications

The LINDAHR project is taking a coordinated, inclusive and national approach to co-design. This research will fill a gap in knowledge and form the foundations for the development of a new landmark national data asset for health research that meets the needs of users.

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Public sector perspectives and requirements for an enduring national linked data asset for Australian health research

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Background

The Australian data landscape has changed markedly over the last 20 years, with high-quality health and other population-based data increasingly being used to inform policy and practice. The public sector is acutely aware of the value of researcher access to integrated, longitudinal data from health, social and economic perspectives. The sector faces multiple requests to access and use their data holdings, and they assess these requests against legislation, regulation, public risks and benefits, and the resource implications. Enduring linked data assets, where the links between datasets are maintained and data is progressively added to the asset, are gaining increasing momentum as public assets.

Methods and results

As part of the LINked Data Asset for Australian Health Research (LINDAHR; doi.org/10.47486/DP793) project, which has been funded by the Australian Research Data Commons (ARDC), we are ascertaining public sector perspectives and requirements. This presentation will report the findings of our consultations with state/territory and Federal Government stakeholders and data custodians on the data, data curation pipelines, data governance framework and trusted research environments.

Implications

The knowledge gained from the public sector consultations will help shape the principles on which the data asset is designed. The endorsement of data custodians is fundamental to the success of the asset. Enduring linked data assets have the potential to drive Australian research innovation, create value for both the research and public sectors, and inform government policy making and decisions.

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Host agency perspectives and requirements for an enduring national linked data asset for Australian health research

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Background

Public sector data is an increasingly valuable resource for research that requires working with many partners to deliver a researcher accessible dataset. Increasingly the data suppliers see multiple copies of data across many linked data assets as a significant future risk and are looking for technical approaches that mitigate this risk. The AIHW continues to play a critical role in understanding the national data landscape and being able to bring the key players together to develop technical solutions. This partnership extends to leadership in national data integration with each of the data linkage bodies across the public sector that have a role to play in making an enduring national linked data asset a reality. As a host agency there is a large technical investment in the infrastructure, processes and researcher access arrangements in an information technology landscape that continues to rapidly evolve.

Methods and results

Recognising the needs for linked information to inform policy and drive innovation and service improvements in health, this presentation will report on advances in technical solutions and governance approaches to better meet the expectations of all stakeholders through the development of enduring national linked data assets.

Implications

Knowledge of researchers' needs for an enduring national linked data asset for Australian health research and perspectives from the public sector consultations will allow us to build on work done to date with stakeholders in developing enduring data assets. The LINked Data Asset for Australian Health Research (LINDAHR; doi.org/10.47486/DP793) project, funded by the Australian Research Data Commons (ARDC), is taking a co-design approach to building consensus that will be solutions focussed and meet the highest priority needs for Australian health research. As a host agency this provides a solid platform upon which to deliver a data asset.

Symposium 7: Clinician behaviour change and the Quality in Acute Stroke Care (QASC) translational research program

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Quality in Acute Stroke Care (QASC) research program. From evidence base to implementation into clinical practice.

Prof S Middleton[1], Ms S Dale[1], Mr B McElduff[1], Ms Kelly Coughlan[1], Prof E McInnes[1], Mr T Fischer[2], Mr J Van der Merwe[2], Mr R Havalda[2], Ms A Grecu[3], Mr R Mikulik[3], Prof D Cadilhac[4], Prof C D'Este[5], Prof C Levi[6,7], Prof J Grimshaw[8], Ms C Quinn[9], Prof N Cheung[10], Prof W Pfeilschifter[11]

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Background and Aim

Evidence- based nurse led protocols evaluated in the QASC cluster randomised controlled trial to manage fever, hyperglycaemia and swallowing (FeSS) complications in the acute stroke setting, significantly reduced death and dependency. An independent economic evaluation estimated if the protocols were implemented in only 65% of this population over one year the total economic benefit (saving) would be $281 M. The 'upscale and spread' of this innovative 15-year program combined implementation science techniques with a scientific evidence base to facilitate translation of this knowledge into clinical practice locally and internationally.

Methods

Methods used to undertake this program of work included a cluster randomised controlled trial to generate evidence of effectiveness of our evidence-based intervention; a pre-test/ post-test design to determine success of its subsequent state-wide roll out; and a pre-test/ post-test design of the program's implementation in Europe. Barriers and facilitators to large-scale system change experienced at all three stages were explored concurrently and findings were incorporated into program planning and design.

Results

Treatment with the FeSS protocols in the QASC trial resulted in a 15.7% reduction in death and disability 90 days post-stroke. In a follow-up study they were also >20% less likely to die (median 4 years). FeSS clinical protocols were implemented throughout all 36 stroke services in New South Wales over an eight-month period. Collaboration with the European Stroke Organisation subsequently resulted in the implementation of the protocols into 64 hospitals in 17 countries internationally.

Implications

Large-scale implementation can be achieved when collaborative, multi-disciplinary relationships combine resources and commitment to a shared vision of improving patient outcomes. The resilience of this remotely-led research program to continue throughout the COVID-19 pandemic is testament to the foundation of the study's design and the significance of what can be achieved when nurses are empowered to lead.

Innovations in changing clinicians behaviour: Implementing nurse-initiated protocols for fever, hyperglycaemia and swallowing management across Europe (QASC Europe Project)

Prof S Middleton[1], Ms S Dale[1], Mr B McElduff[1], Ms K Coughlan[1], Prof E McInnes[1], Mr T Fischer[2], Mr J Van der Merwe[2], Mr R Havalda[2], Ms A Grecu[3], Prof R Mikulik[3], Prof D Cadilhac[4], Prof C D'Este[5], Prof C Levi[6,7], Prof J Grimshaw[8], Ms C Quinn[9], Prof N Cheung[10], Prof W Pfeilschifter[11]

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Background and Aim

Assisted implementation of FeSS protocols following stroke significantly reduces 90-day death and disability and longer-term mortality. The QASC Europe project, a novel international collaboration between: Nursing Research Institute (NRI); European Stroke Organisation; Angels Initiative; and Registry of Stroke Care Quality (RES_Q) facilitated implementation of nurse-initiated fever, hyperglycaemia (sugar) and swallowing (FeSS) protocols into stroke units across Europe.

Methods

A multi-country, multi-centre pre-test/post-test study was conducted (2017-2021). Baseline and post-implementation data (3-months after FeSS protocol introduction) were entered into RES-Q. Nursing clinical champions, with support from the Project team (European Liaison Officer, Angels Consultants, Country Coordinators and the NRI) conducted multidisciplinary workshops identifying barriers and facilitators to protocol implementation and held education sessions. Outcomes were adjusted for clustering by country and hospital controlling for age/sex/NIHSS.

Results

At baseline, 76 hospitals in 18 countries (n=3999 patients); and post-implementation, 64 hospitals in 17 countries (3257 patients) participated (Total n=7356). There were improvements in: temperature monitoring on day of admission (Pre:43%; Post:79%, $p<0.00001$); treatment of fever >37.5°C with paracetamol within one hour (Pre:57%; Post:79%, $p<0.00001$); blood glucose monitoring on day of admission (Pre:38%; Post:75%, $p<0.00001$); treatment of hyperglycemia >10mmol/L with insulin within one hour (Pre:59%; Post:75%, $p<0.00001$); and swallow screening before food or fluids (Pre:59%; Post:83%, $p<0.00001$).

Implications

Our innovative collaboration between industry and research resulted in successful rapid and large-scale translation of FeSS protocols into countries with vastly different healthcare systems. Similar partnerships should be considered for future translation of effective stroke interventions to reach a greater proportion of stroke patients. This model can be used for scale-up of other clinical interventions other than stroke.

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Quality in acute stroke care (QASC) Europe – a process evaluation of factors influencing upscale of nurse-led stroke protocols in 17 European countries

Prof E McInnes[1], Ms K Bagot[1], Ms S Dale[1], Ms K Coughlan[1], Prof J Grimshaw[2], Prof W Pfeilschifter[3], Prof D Cadilhac[4], Prof S Middleton[1]

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Objectives

A pre-test/ post-test evaluation was undertaken of the implementation of nurse-led evidence-based stroke protocols into 64 hospitals in 17 European countries. The implementation model involved a collaboration between academic, non-government and industry stakeholders. A process evaluation was conducted to identify the barriers and enablers to implementation using a multi-stakeholder collaboration.

Methods

Focus groups and individual face-to-face videoconference interviews using a semi-structured interview guide were conducted. Purposive sampling was used to recruit a total sample of 22 from four stakeholder groups: high-level project governance (senior clinicians, researchers, industry executives), local industry facilitators and their team leaders; and country co-ordinators (senior stroke nurses). Interviews were thematically analysed.

Findings

Factors that influenced implementation of the protocols were: 1) Managing expectations; 2) Role clarity; 3) Communication systems and 4) Tailoring and adapting processes. Working across stakeholder groups to develop a successful collaboration to facilitate scale-up required achieving a shared understanding of the project, negotiation of roles and responsibilities, development of optimal communication systems and ability to tailor the implementation to specific hospital contexts. We call this model Cascading Facilitation.

Implications

Cascading facilitation can support and facilitate the scale-up of evidence into practice through multi-stakeholder collaboration. This model provides an alternative approach to other scale-up frameworks, which do not depict working relationships between organisations. Cascading facilitation has strong potential for future international scale-up of other areas of evidence-based care.

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Telehealth for diabetes in pregnancy during a pandemic: learnings for future healthcare

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Introduction

The onset of COVID-19 prompted the rapid implementation of telehealth for diabetes care during pregnancy at Monash Health. An evaluation was undertaken to inform iterative service improvements for women and health professionals, including for women who speak languages other than English.

Method

Semi-structured interviews were conducted between April and June 2021 with women attending the diabetes in pregnancy service (n=18 spoke English, n=10 languages other than English), health professionals (3 endocrinologists, 1 dietitian) and professional hospital interpreters (n=4). Deductive and inductive thematic analyses were applied. The Nonadoption, Abandonment, and Challenges to the Scale-Up, Spread, and Sustainability of Health and Care Technologies Framework (NASSS) was employed.

Results

All participants reported high satisfaction with telehealth utilisation for diabetes in pregnancy care. All women described the benefits of utilising telehealth and these benefits could be grouped into (a) greater access to care, (b) reduced personal costs and (c) improved safety (due to COVID). Greater access to care focused on telehealth convenience, attending appointments from home, and for women with children, this facilitated managing their needs. For women who spoke languages other than English, additional themes identified included improved workflow processes for interpreters, however, the delivery of health information via telephone commonly lead to the loss of subtle communication cues (facial expressions and body language), that could be ameliorated with videoconferencing. For health professionals, factors to consider in support of telehealth included easily accessible IT and project support, service-wide telehealth protocols, integrating electronic prescriptions and pathology and, measures to minimise social isolation and support training.

Implications

A hybrid flexible delivery model consisting of telehealth with some face-to-face consultations at specific time points (at diagnosis and commencing insulin) was recommended. Video consultations may aid in communication where interpreters are required. Further technology integration and systems support can help health professional satisfaction and time management.

The Virtual Rural Generalist Service: An innovative medical model supporting the provision of healthcare in rural and remote communities

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Introduction/Background

Western NSW Local Health District (WNSWLHD) is a rural LHD with 38 inpatient facilities across some 246,000km². Like many rural LHDs, WNSWLHD experiences significant challenges securing a medical workforce, resulting in workforce gaps and dependencies on locum contracts. In response to these challenges, WNSWLHD developed the Virtual Rural Generalist Service (VRGS) to provide virtual and face-to-face medical coverage for hospitals when local visiting medical officers (VMOs) are not available or need leave. The adaptable model permits routine after-hours and/or weekend cover, or ad-hoc cover during periods of unplanned leave.

Population/setting

WNSWLHD residents often experience poorer health outcomes associated with geographic, environmental and socio-economic challenges characteristic of rural communities. Health outcomes are further compounded by poorer access to primary healthcare, as the rate of general practitioners is lower than that for Australia.

Method

This presentation will describe the VRGS model of care adopted to support rural communities and provide quantitative and qualitative data collected to monitor safety and quality of the service.

Results/findings

The VRGS has been implemented to 32 facilities across WNSWLHD. Of these, 18 use the service routinely after-hours and/or over weekends. During 2020/21, VRGS support was a requirement in securing 12 VMO contracts across the LHD.

The service employs 25 skilled rural generalists, who have completed over 39,700 consults, excluding daily ward rounds and calls to the service. Since February, 2020, VRGS has provided over 520 days of face-to-face cover to facilities with ongoing medical coverage challenges.
To date, outcome measures have shown equivocal results for VRGS compared with more traditional care.

Implications/key-message

The VRGS provides a safe, high-quality medical model to support the recruitment of rural general practitioners, and supports local VMOs in better managing fatigue. The model may be used as a tool to support ongoing recruitment and retention of general practitioners in rural communities.

Cost-effectiveness of remote patient monitoring for chronic disease management

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Introduction

Remote patient monitoring (RPM) enables patient biometric data to be collected, recorded, and reviewed from a distance by a clinician, offering potential benefits for chronic disease management. Various RPM systems are being trialled globally, but prior to broad implementation, it is essential that the economic evidence for RPM is reviewed. A systematic review was conducted to summarise the available economic evidence of RPM for chronic diseases, compared to usual care.

Method

A systematic literature search was used to identify studies that conducted economic evaluations of RPM, compared to usual care, for chronic disease management. Searches of PubMed, Embase, CINAHL, and EconLit were undertaken to identify articles published from inception to July 2020, using keyword synonyms for RPM and economics. Title, abstract, and full-text reviews were conducted. Data extraction of study characteristics, participants, RPM intervention, and economic findings was performed. Article reporting quality was assessed using the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) checklist.

Results

Twenty-seven articles were selected for inclusion, investigating RPM of chronic obstructive pulmonary disease (n=8), heart failure (n=6), hypertension (n=5), and other chronic diseases (n=8). Of the 27 included studies, 7 used cost-minimisation analysis, 4 used cost-effectiveness analysis, 15 used cost-utility analysis, and 1 used a cost-consequence analysis. The majority of studies assessed the cost-effectiveness of RPM from a health system perspective. Studies were of high reporting quality when assessed against the CHEERS checklist, with an average score of 83% on the checklist.

Key message

RPM can be cost-effective compared to usual care across chronic diseases. The cost-effectiveness of RPM is highly dependent on capital investment, clinical context, study setting, and the organisational processes involved in RPM implementation and provision. This review demonstrates that RPM can have positive economic impacts on chronic disease management, and more importantly, optimise the quality of patient care provided.

Health workforce perceptions on virtual care augmentation opportunities for regional patients

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Introduction or Background

The onset of the COVID-19 pandemic brought about a rapid increase in the need for and use of telehealth and other virtual care modalities to ensure the continuation of health care delivery. This was particularly true for patients in regional areas in Western Australia where travel intrastate was at times restricted to reduce the transmission of the virus in more vulnerable populations. With the advancement in digital technologies, and the long-standing utilisation of telehealth to support particularly regional patients in Western Australia, it is appropriate to consider the augmentation of health care delivered via virtual care modalities.

The Moving Beyond Telehealth project is a partnership approach to the augmentation of virtual care in Western Australia, involving WA Country Health Service (WACHS), WA Department of Health, WA Primary Health Alliance (WAPHA), and funded by the Digital Health Collaborative Research Centre (DHCRC).

Method

Semi-structured group discussions were held with 53 health workforce representatives across all seven WACHS regions in Western Australia, and with core program leads and partners in metropolitan Perth. The focus was to understand workforce representatives’ experiences with telehealth, and their needs and expectations for its future. Discussions were transcribed verbatim and analysed for common themes.

Findings

Participants identified opportunities to plan for the future delivery of telehealth relating to infrastructure, health system strategy, funding models, governance, workforce education, patient education and systems integration.

Implications or key message

Two years on from the COVID-19 pandemic, it is timely that we revisit virtual care experiences to learn how they can be improved to benefit patient outcomes, and more effectively support clinical practice. The findings from this research are vital for instigating changes that will support the health workforce to effectively deliver care through digital technologies.

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Going digital in a hurry: A process evaluation of the rapid implementation of a cancer telerehabilitation program

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Background

Access to exercise for cancer survivors is poor despite global recognition of its benefits. Telerehabilitation may overcome barriers to exercise for cancer survivors but is not routinely offered. The aim of this study was to complete a process evaluation of a cancer telerehabilitation program rapidly developed in response to COVID-19.

Population/setting

Public ambulatory cancer rehabilitation program in metropolitan Melbourne

Method

A mixed methods process evaluation using the Proctor Model was completed. Key outcomes assessed included; acceptability, adoption, feasibility, feasibility, fidelity, cost, safety, satisfaction and quality of life. Participants were cancer survivors admitted to a telerehabilitation program between March and December 2020. Staff directly involved in the implementation completed an interview. Routinely collected hospital data including referral, admissions, costs, adverse events, physical activity level and quality of life was assessed. Participants received a telerehablitation intervention including health coaching via telehealth, online group exercise, home exercise program and information portal. Quantitative data was reported descriptively and qualitative data coded and mapped to the Proctor Model.

Results

The telerehabilitation program received 175 referrals over 8-months. Of those eligible, 123/180 (82%) commenced. No major adverse events resulted from the intervention. Adherence to health coaching sessions was high (80% scheduled sessions) but participation in online group exercise classes was low (29%). Patients improved their self-reported physical activity levels by a median of 110 minutes per week (IQR 90-401) by program completion. Patients were satisfied with telerehabilitation but clinicians reported a mixed experience telehealth. They reported pride in rapidly care delivery but struggled with loss of personal connections. The average health service cost per participant was AUD $1,104.

Implications/ key message

A comprehensive telerehabilitation model is safe, feasible and improved outcomes for cancer survivors. Learnings from this study may be applied to other settings to inform the ongoing implementation of cancer telerehabilitation.

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Use of patient reported outcome measures (PROMs) in clinical care: a community-based allied health setting

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Objectives

Measuring health outcomes ensures patients receive, and health professionals deliver effective healthcare. Community-based healthcare provides targeted services for people with complex (i.e. multiple chronic diseases) and often deteriorating conditions. Therefore, our challenge in reporting outcomes is finding a validated, reliable and responsive tool that can be applied across a multidisciplinary team of eight allied health professions. This study assessed the responsiveness of EQ-5D-5L to effectively measure PROMs across allied health services in community health.

Methods

Adults attending the community-based health service for a new episode of care were asked to participate. EQ-5D-5L and discipline specific measures were administered at the start of care and repeated 3 months later or at time of discharge if earlier. Disciplines and measures used were: psychology (DASS-21); occupational therapy (COPM); social work (ORS); dietetics (Qualcibo); podiatry (wound depth); physiotherapy (6 Minute Walk Test); exercise physiology (QuickDASH); and, speech pathology (AusTOMs).

Lessons learned

Among 70 adults, significant improvements in discipline measures were seen in occupational therapy (n=20, p=0.001); social work (n=8, ORS social p=0.035); dietetics (n=17, p<0.01 for 4 of the 5 domains); podiatry (n=7, p=0.030); and speech pathology (n=6, swallow impairment p=0.022, swallow distress p=0.042). There was a small but non-significant improvement in mean EQ-5D-5L utility score and Visual Analogue Scale, baseline; 0.534 (SD=0.281) and 63 (SD=20) and at 3-month follow-up; 0.557 (SD=0.275) and 66 (SD=22). At 3-month follow-up, fewer participants reported moderate, severe or extreme problems for mobility (16% fewer), usual activities (4% fewer), pain/discomfort (12% fewer), and anxiety/depression (23% fewer).

Implications

Results suggest the EQ-5D-5L measure was unresponsive to the improvement demonstrated with discipline specific measures, in community-based allied health services over the 3-month time frame.

Ethical considerations for the inclusion of patient-reported outcomes in clinical research: The PRO ethics guidelines

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Background

Patient-reported outcomes (PROs) are used in clinical research to provide evidence of the benefits and risk of therapies from a patient perspective. PRO trial data have the potential to inform regulatory approvals, health policy and clinical practice. In observational studies and routine clinical care, PRO data provides information on disease burden and real-world evidence of treatment safety and effectiveness. We sought to develop an international, consensus-based, PRO-specific ethical guidelines for clinical research.

Population

Researchers, patients, and regulators.

Methods

We followed the EQUATOR Network’s guideline development toolkit. This included (1) a systematic review of the ethical implications of PROs in clinical research, supplemented by the SPIRIT-PRO Extension; (2) a two-round international Delphi exercise (n=96 stakeholders); and (3) a consensus meeting (n=25 international stakeholders) with input from six additional stakeholders. Prior to voting, consensus participants received a summary of the Delphi results and information on whether the items aligned with existing ethical guidance.

Results

Twenty-three items were considered in round 1 of the Delphi: six candidate items from the systematic review and seventeen from the SPIRIT-PRO Extension. Ninety-six stakeholders voted on the importance of each item for inclusion and twelve additional items were recommended for voting in round 2 of the Delphi (n=35 items). Fourteen items were recommended for inclusion at the consensus meeting (n=25 participants). The final wording of the PRO ethical guidelines was agreed by consensus participants. Included items focused on PRO-specific ethical concerns including eligibility requirements, PRO data monitoring, barriers to PRO completion, participant acceptability and burden, and administration of PRO questionnaires for participants who are unable to self-report PRO data.

Semi-autonomous analysis of qualitative Patient Reported Experience Measures using Leximancer

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Introduction

Positive patient experience has been associated with improved patient safety and clinical effectiveness across many healthcare settings. Patients' views on their healthcare experiences can be captured through quantitative and qualitative questions, known collectively as Patient Reported Experience Measures or PREMs. These tools are generating large amounts of data and are increasingly being used to drive changes in healthcare. However, a major barrier to PREMs driving positive change is a lack of resources to analyse and interpret the large volumes of responses, especially for qualitative free-text feedback. This study investigates whether a text analytic tool, Leximancer, can be used to semi-autonomously analyse PREMs free-text data to streamline the analysis process and help identify opportunities to improve patient experience.

Methods

A PREMs survey of inpatients discharged from a large hospital in Brisbane, Australia was administered online. Responses to two free-text questions "Was there anything really good about the care you received?" and "Was there anything about the care you received that could be improved?" were analysed by ward using Leximancer. Words with little lexical meaning were identified and removed using Leximancer's stop word functionality before creating concept maps.

Results

Leximancer's concept map provided a high-level overview of the most prevalent concepts from the PREMs feedback. Reading the related text was required to gain an understanding of the specifics; this was made easy through Leximancer's interactive interface showing text coded with each concept. Further investigation is required to understand Leximancer's ability to operationalise this solution at scale and share results among wider audiences.

Implications

Leximancer can efficiently analyse PREMs qualitative data, it provides a useful visualisation to summarise the issues and functionality to interrogate the text further. Operationalising this solution at scale may contribute to ensuring patient feedback is highlighted to the relevant stakeholders, providing an opportunity to improve the patient experience.

Identification of factors associated with changes in client's health-related quality of life can be used to plan improvements in health outcomes: results of a routinely administered patient reported outcome measure within a large, multi-site, multidisciplinary community rehabilitation program

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Introduction

Increasing global awareness of the benefits of measuring health-related quality of life (HRQOL), has resulted in the use of patient reported outcome measures (PROM) to drive improvements in healthcare delivery. Within a large, multi-site health service the Peninsula Health multi-disciplinary community rehabilitation program implemented the EQ-5D-5L PROM for all patients admitted over an 18-month period from January 2019. The study aim was to identify the service factors associated with HRQOL changes, to shape the care delivery model and inform future improvement activities.

Methods

A retrospective observational cohort design was used. Primary outcome was the visual analogue scale (VAS) rating of health. EQ-5D-5L health dimensions were analysed using the Paretian Classification of Health Change. Participants were categorised into five diagnostic groups: traumatic orthopaedic, elective orthopaedic, neurological, medical, other. Service, and client demographic factors were modelled using multivariable linear regression to determine associations between these factors and discharge VAS scores adjusted for baseline VAS scores.

Results

From 981 participants (73% EQ-5D-5L completion rate) statistically significant HRQOL improvements were demonstrated across all diagnostic groups. Modifiable factors associated with discharge VAS scores were:

1.) Treatment intensity – positive association for traumatic orthopaedic ($\beta=7.22$, 95%CI 2.28 to 12.2, $p=.004$); positive interaction for neurological clients with higher co-morbidity scores ($\beta=7.9$, 95%CI 2.75 to 31.1, $p=.003$)

2.) Time on program – negative association for neurological group ($\beta=-.084$, 95%CI -.135 to -.033, $p=.001$)

Neurological clients who received multidisciplinary care improved within minimum clinically important difference parameters, however was underpowered to demonstrate statistical significance. 'Usual activities' dimension showed most and 'anxiety/depression' dimension least improvement across groups, with the neurological group demonstrating least overall improvement.

Key message

Implementation of a routinely administered PROM into a health service program can identify factors to plan improvements in health outcomes, for example changes to program delivery for neurological clients, and targeting anxiety/depression.

Developing recommendations for inclusion of patient-reported outcome measures (PROMs) in clinical quality registries

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Background
Clinical quality registries (CQRs) monitor compliance against optimal practice and provide feedback to the clinical community and wider stakeholder groups. Despite a number of CQRs having incorporated the patient perspective to support the evaluation of healthcare delivery, no recommendations for inclusion of patient-reported outcome measures (PROMs) in CQRs exist. The aim of this study was to develop a core set of recommendations for PROMs inclusion of in CQRs.

Methods
An online two-round Delphi survey was conducted among CQR data custodians, quality of life researchers, biostatisticians and clinicians. Eighteen experts were invited to participate, 11 agreed to undertake the first survey (round 1). Of these, nine experts completed the survey for round 2. A list of statements for the recommendations was identified from a literature review and survey of the Australian registries conducted in 2019. Statements were grouped into the following domains: rationale, setting, ethics, instrument, administration, data management, statistical methods, and feedback and reporting.

Results
From 117 statements presented to the Delphi panel in round 1, a total of 72 recommendations (55 from round 1 and 17 from round 2) with median importance (MI ≥7) and disagreement index (DI <1) were proposed for inclusion into the final draft set. Recommendations were refined for clarity and to read as stand-alone statements. Ten overlapped conceptually and, therefore, were merged to reduce repetition. The revised 62 recommendations were included into the final set.

Conclusion
The recommendations will present a valuable resource that can be used for educating registry managers, researchers and clinicians on the effectiveness of collecting, analysing and acting upon PROMs data to improve health outcomes, and to support PROMs implementation and use.

Implications
Recommendations for PROMs implementation are critically important for registries to assure meaningful PROMs data capture, use, interpretation, and reporting to improve health outcomes and healthcare value.

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Development of a Food Services Patient Reported Experience Measure for Hospitalised Children

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Introduction

Patient satisfaction with hospital foodservices is one of the most important elements in determining a patient's overall perception of their inpatient experience[1]. Whilst measurement tools have been developed and validated in adult hospital settings[2], there is currently no formally validated questionnaire for use in paediatrics.

This study aimed to identify issues important to children and their parents/carers regarding hospital foodservices to inform the development of two new foodservice patient-reported-experience-measures.

Method

Purposeful sampling of hospitalised children and their parents/carers in a 359 bed paediatric tertiary hospital who accessed the foodservice were approached to participate.

Conversational interviews were used to explore participant/s experiences with the hospital foodservice and elicit aspects deemed important. Interviews were audio recorded and conducted by one researcher for consistency. Interviews were transcribed and analysed thematically[3].

Results

To-date twenty interviews averaging 15 minutes (7-29 minutes) of target n=22 have been conducted with good representation of patient diversity. The average length-of-stay was 23days (1-140days), average age 9years (2months-16years) with 12 interviews for male children.

Early analysis has identified themes consistent with factors in current adult validated tools for measuring hospital foodservice satisfaction: food quality, variety, taste, and staff service (including friendliness and communication). Emerging data suggests aspects including cultural food appropriateness, meal flexibility, timing, food quantity and freshness also important in this setting.

Implications

Children and parents can clearly describe what is important to their hospital foodservice experience. Designing services to meet these expectations is complex. Once data collection and analysis are complete, the results will be utilised for the development of two new patient-reported experience measure questionnaires for hospital foodservices for paediatric patients, with both a child and an adult version.

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Measuring value from multiple perspectives: using a systems and complexity approach to evaluating a major mental health reform program in NSW

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Background

In NSW, the Pathways to Community Living Initiative (PCLI) provides ongoing funding for specialised mental health teams and aged care service models. The program aims to integrate and improve care across mental health services through stronger links with community based aged and disability care providers, to enable people with severe mental illness and complex needs to live safely and sustainably in community settings. Our presentation explains how we used a systems and complexity lens during the independent evaluation (2017-2021) of this major mental health care reform program.

Method

The evaluation addressed questions around the program's value from multiple perspectives: mental health consumers, family carers, health care providers within and outside the program, and aged care providers. Value to the system was addressed through an economic evaluation comparing costs of care before and after transition, and through a 'deep dive' organisational case study examining changes in practice and culture.

This mixed-methods study involved more than 160 interviews over 4 years and spanning 11 implementation sites, plus analysis of patient outcomes and health care utilisation data (n=1004); online surveys of mental health service staff; site visits; and documentary sources.

Results

Rather than presenting evaluation findings, we will describe how we used a complexity and systems lens to shape the interpretation of a vast dataset and synthesise evidence around evaluation questions, to understand the implementation of the program and assess its value across the whole range of stakeholders.

Implications

Using a complexity lens strengthened program design and implementation and ensured the program had the best chance of the intended impact and outcomes. Our approach also helped highlight areas for future development to strengthen the evaluation and monitoring of value, particularly for consumers.

Health System Responsiveness in Addressing Indigenous Residents' Health and Mental Health Needs During the 2016 Horse River Wildfire in Northern Alberta, Canada: Perspectives from Health Service Providers

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Introduction/background

Following the 2016 Horse River Wildfire in northern Alberta, Canada, the provincial and municipal governments and regional community-based service agencies mobilized to address the growing health and mental health concerns among Indigenous residents and communities through the provision of services and supports. The objective of this research was to describe the health system response to the health impacts following the wildfire from the perspective of service providers who were directly responsible for delivering or organizing health and wellness services and supports to Indigenous residents.

Population/setting

The Regional Municipality of Wood Buffalo (RMWB) is a community located in Northern Alberta Canada, which is home to 5 First Nation and 6 Métis groups.

Method

Semi-structured qualitative interviews were conducted with service providers in the RMWB. Interviews were analyzed using a constant comparative analysis method. Following service provider interviews, a supplemental document review was completed to provide background and context for the qualitative findings from interviews. The document review allowed for a better understanding of the health systems response at a systems level following the wildfire. Data interpretation was guided by Mirzoev and Kane (2017) for understanding health systems responsiveness.

Results/findings

Interviews were conducted with 15 Indigenous and 10 non-Indigenous service providers which included frontline healthcare workers, social and community workers and directors/team leads. Our findings were divided into three themes (1) service provisions in response to Indigenous mental health concerns (2) gaps in Indigenous health-related services post-wildfire and (3) adopting a health equity lens in post-disaster recovery.

Implications/key message

The knowledge gained from this research can help inform future disaster management and assist policy and decision makers with recovery planning. Future recovery and response efforts should identify and address underlying health and mental health concerns in order to be more effective in assisting with healing for Indigenous communities following a disaster.

Implementing a Psychiatric Behaviours of Concern (Psy-BOC) emergency team in an acute inpatient psychiatry unit: Staff perspectives

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Introduction

Aggressive behaviour, deliberate self-harm, absconding and sexual assault are widespread in mental health inpatient settings. Restrictive interventions such as restraint can cause additional trauma to patients who are already acutely distressed. A Psychiatric Behaviours of Concern (Psy-BOC) response team was introduced to bring psychiatric expertise to escalating behavioural situations to de-escalate using minimally restrictive interventions. This research evaluates the experience of staff in the operation and impact of the Psy-BOC response team.

Population/setting

Nurses, allied health, managers, and medical staff (N=24) working in two adult acute psychiatry inpatient wards (58 Beds) at a major metropolitan hospital in Melbourne, Australia.

Method

A qualitative descriptive design. Five focus groups were conducted. Interviews were audio-recorded and analysed using the framework approach. Data were aggregated into themes.

Results

Four themes:

1. Identifying mental deterioration

Staff were constantly alert for behaviours that preceded BOC. Knowing a patient and their mannerisms helped with early recognition and de-escalation.

2. Responding to behaviours of concern

Strategies were used to calm patients including medication, behaviour management plans, diversion therapies and verbal de-escalation before additional help from Psy-BOC team was requested.

3. Staff reactions to Psy-BOC

Ward staff were fearful of increasing aggression on the ward when seclusion was minimised. They appreciated additional expertise to help at crisis points.

4. Barriers to Psy-BOC

Barriers included an overcrowded ward environment lacking alternative therapy spaces, lack of time to provide the care that was planned and difficulties once the Psy-BOC team had left.

Key message

The Psy-BOC team reduced restrictive interventions and staff harm, however staff believed it was due to increased recognition of early warning signs and early response rather than the attendance of the Psy-BOC team. Frontline staff vulnerability must be addressed. Strong leadership is needed to change practice. The ward environment must be conducive to the care required.

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Using health services research to improve service planning: quantifying population-based need for lifestyle interventions among young adults with mental illness in Australia

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Introduction/background

Mental illness is the leading cause of disease burden during young adulthood (18-24 years) and impacts significantly on young peoples' lives and prospects. Engaging young adults in treatment for their mental illness can be challenging. Lifestyle interventions are multidisciplinary services that take a holistic approach to improving mental health. They include exercise, diet, sleep hygiene and smoking cessation. Lifestyle interventions present an engaging service option for young adults that treat symptoms of mental illness, improve physical health problems, and enhance social connectedness. While there is strong evidence for positive outcomes, these services are not widely available to young adults with mental illness. This study aimed to quantify the population-based need for lifestyle interventions to provide pragmatic guidance for health service planners and improve access to lifestyle interventions.

Population/setting

Young adults with mental illness in Australia.

Method

A two-stage approach was undertaken to determine the proportion of young adults with varying levels of mental illness severity who would benefit from lifestyle interventions, and the relevance of individual and group-based service delivery. This included structured consultation with a group of 12 experts in youth mental health and an online delphi study with 14 respondents with expertise and interest in lifestyle interventions.

Results/findings

The recommended proportion of young adults who would benefit from lifestyle interventions varied between the structured consultation with experts and the delphi study. However, generally, the proportion increased with illness severity. Overall, study participants recommended that a greater proportion of young adults should have access to individually-delivered interventions compared to group interventions.

Implications/key message

This study provides estimates that can be used by health service planners to inform resource allocation and guide workforce planning. Service providers can use the results to design services that will address the needs of young adults.

Child maltreatment and Emergency Department visits: A longitudinal birth cohort study from infancy to early adulthood

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Introduction/background

Child maltreatment (CM) is a serious global public health issue, with documented impacts on health but little is known about the long-term impacts on emergency department use.

Population/setting

All individuals born in the Adelaide metropolitan region from January 1986 to June 2017 (N=443,754).

Method

Using administrative linked data we examined the association between different levels of CM concern, and Emergency Department (ED) visits from infancy to early adulthood. We calculated frequency and adjusted rate ratios for all-cause and cause specific ED visits among individuals with varying levels of CM concern.

Results /findings

Cumulative mean ED visits to age 14.5 years were higher for individuals with any CM concern, ranging from 10.2 to 14.8, compared with 6.4 in persons with no recorded CM concern. Adjusted rate ratios for ED visits varied from 1.26 (95% CI:1.23–1.30) to 1.54 (1.48-1.60) in children (birth to 12 years), 1.98 (CI:1.92–2.04) to 4.34 (CI:4.09-4.60) in adolescence and 2.22 (CI:2.14–3.48) to 3.48 (3.27-3.72) in young adults. ED visits coded as self-harm or poisoning, injuries, substance use or mental illness were particularly high, with incidence rate ratios mostly 3 to 10 times for mental health/substance related visits and 1.5 to 3.5 for other accidents or injury for individuals with any CM concern versus none.

Implications/key message

The high rate ratios for ED visits in children with CM concern, especially for self-harm, substance use and mental health during adolescence and adulthood highlights the enduring mental health needs of victims of child maltreatment, providing further impetus for primary and secondary prevention.

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Better Together: Implementation of mental health peer work roles in the ACT

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Background

The mental health peer workforce is growing within mental health services in Australia. The Better Together project aimed to explore the implementation of peer work initiatives and programs within the Australian Capital Territory (ACT).

Population/setting

12 participants from a range of backgrounds, including peer workers, clinicians, and other mental health workers working in ACT clinical, community and education settings.

Methods

Semi-structured interviews, informed by the Consolidated Framework for Implementation Research (CFIR).

Findings

While peer work has been embedded in health services in the ACT for many years, it is still seen as an emerging workforce. Interviewees exhibited high levels of experience and skill in peer work implementation, policy and practice whilst indicating that these skills were not being fully utilised to grow and develop the peer workforce in the ACT. The programs, people and processes involved in peer work implementation (CFIR Intervention Characteristics, Characteristics of Individuals, and Process), were described as mostly positive. Key suggestions for improving implementation of peer work were primarily related to the CFIR Outer and Inner Settings, and reflected the need for a more systemic approach. These included: greater support from policy makers and executive management; opportunities for networking with other peer workers across Canberra and the region; training of clinicians and other mental health workers about peer work; access to peer supervision; and higher rates of pay and opportunities for career advancement, to support workforce retention, particularly of experienced peers.

Implications

This study demonstrates the critical role of system and organisational level factors in implementation of new workforce roles. High quality programs, processes and individuals must be implemented with high-level policy and executive support to maximise success.

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Evaluating mental healthcare reforms: what matters most to those directly affected?

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Background

Evaluation of mental healthcare reform may focus on costs, resource requirements, and general outcomes such as quality of life; measures that allow decision-makers to understand the cost-effectiveness of the intervention. However, the Royal Commission into Mental Health has made explicit the need to be responsive to the priorities of patients and their carers. The things we measure – and therefore how we define 'value' – should effectively incorporate their priorities. Attributes of value may include patient dignity; autonomy; physical safety; wellbeing of patients, staff and carers. In this study we aim to understand the views and priorities of adult and young person patients and carers – and how they differ or are similar – in terms of what they think is important to measure when evaluating mental healthcare system reforms.

Method

Participants are people with lived experience of mental health problems, both (1) young people (15-25 years); and (2) adults (26+ years); and (3) carers. Through a one-time online survey, participants rank a series of statements related to aspects of value from "strongly agree" to "strongly disagree". Using Q-methodology (based on factor analysis), we examine the clusters of viewpoints within these groups, comparing these within and between groups.

Results

Final results will be available by December 2022. Analyses will answer the following questions: can we say that all young people prioritise similar aspects of value, or are there many different voices within this group? How do these views differ from adults with lived experience of mental health problems, and from carers?

Implications

Through our partnership with Safer Care Victoria, results will be incorporated into future evaluation frameworks for implementation work conducted within this department. Results will inform the evaluation of mental healthcare system reform to ensure that efforts are sensitive and responsive to the priorities of patients and carers.

Use of a clinical outcomes national data collection in measuring performance of mental health services

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Introduction

A range of health services may be accessed as part of recovery for people with mental illness. About $11 billion ($431 per person) was spent on Australian mental health-related services during 2019–20. A key question is whether this investment is making a difference. One aspect of measuring healthcare performance is whether consumers improve after receiving care. Clinical measures capture information about a person's health and wellbeing during an episode of care, and when completed more than once can demonstrate whether a person shows improvement. This type of outcomes measurement is just one aspect of a consumer's recovery.

Method

The National Outcomes and Casemix Collection (NOCC) was established in 2003 to enable routine consumer outcomes measurement in specialised public mental health services, which typically provide care to people with severe mental illness. While implementation of the collection is not mandatory, all states/territories provide annual data for national reporting.

Results

During 2018–19, data for 43% of public mental health consumers were collected under the NOCC. Clinician-rated outcome measures show:

- Improvement for consumers for between 24% and 74% of episodes
- No change for consumers for between 22% and 60% of episodes
- Deterioration for consumers in up to 18% of episodes.

Implications

Clinical outcomes from NOCC data reflect the diverse presentations and types of care for public mental health consumers, and show positive outcomes for many consumers at completion of their care. Data are publicly reported under Key Performance Indicators for Public Mental Health Services and interactive data products. Lessons from the NOCC can be interpreted at different levels including individual patient wellbeing, consumer group, and service delivery, and contribute internationally on the value of measuring outcomes in healthcare. Data collection, reporting and development under the collection continue with significant ongoing collaboration in the sector.

Session 5F: Research with First Nations people

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A Decolonizing approach for conducting population health research with First Nation (FN) and Indigenous people.

Seven Generations Scholar Wanda Phillips-Beck[1], Professor Josée Lavoie
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Introduction/background

To demonstrate the application of Indigenous/decolonizing framework in population health research involving Indigenous people, and respond to the Truth and Reconciliation Commission of Canada's Call to Action #19 to close the gap in maternal/child outcomes, this study aimed to provide a baseline for select outcomes for women who are forcibly removed from their communities to give birth, a policy that has been in place for multiple generations, requiring women living in rural and remote communities to leave home to give birth in urban hospitals at 36-38 weeks gestation.

Population/settingWomen residing in FN communities in Manitoba.

Method

Kovach's (2009) Indigenous framework was the starting point and a two-pillar Anishinaabe framework was the endpoint for this study. Therefore, Knowledge Keepers informed this retrospective cohort study from the start. Administrative data housed at the Manitoba Centre for Health Policy was utilized to create and examine a cohort of low-risk women residing in FN communities who delivered between 2005-2015.

Results

A two-pillar Anishinaabe framework is presented and maps a crosswalk between western and Indigenous research processes. In keeping with a decolonizing aim and an Indigenous methodology, the issue was framed in the context of colonization, and voices of Knowledge Keepers were included throughout. Using this approach, this study generated evidence that the present-day evacuation policy continues to harm women, families, and communities.

Key Message

This study documents a journey of an Anishinaabe doctoral student in the space where western and Indigenous methodologies meet and demonstrate that decolonizing quantitative research and Indigenous frameworks are feasible, essential, and necessary in population health research involving Indigenous people while remaining scientifically rigorous. In answering the TRC call to improve maternal and infant outcomes, epidemiological and population health research requires epistemological frameworks that adequately incorporate the voices and realities of Indigenous people's lives.

Non-indigenous researchers and indigenous methodologies: building the narrative around pākehā and kaupapa Māori research in Aotearoa.

Ms Francesca Storey[1]
[1]*Victoria University Of Wellington, Kelburn, New Zealand*

This research explores what enables, guides and facilitates non-Māori working with Māori, to reduce health outcome disparities.

As a non-Indigenous, tauiwi (UK immigrant) researcher working through Māori-led and centred engagements and decolonising methodologies, this qualitative research examines the role of an ‘accomplice’, working with Māori providers and communities, supported by kaumātua and kuia (Māori tribal elders).

Subjects were non-Māori with a history of conducting health research in Māori cultural paradigms (e.g. kaupapa Māori research), working to deliver more equitable outcomes. Subjects ‘proving themselves to be effective and working with respect in the Māori world’, were identified and invited by the kaumātua and kuia to participate in the study.

Qualitative data was collected through semi-structured interviews with five participants relating to the experiences of, and factors for, non-Māori working alongside kaupapa Māori research. Overseen by kaumātua and kuia, and working to kaupapa Māori principles, a Māori lens has guided this strengths-based qualitative research.

Preliminary themes and findings will be reported.

The results from this study will provide non-Māori with insights from those working effectively with Māori. Findings may also be of relevance for non-indigenous researchers in other countries, looking to work effectively for, or in collaboration with, indigenous-led and centred research.

Community perceptions on the use of tuberculosis isolates grown from diagnostic sputum samples: A Kaupapa Māori consistent approach.

Dr Anneka Anderson[1], Whaea Julie Wade[1], Dr Mythily Meher[1], Professor Judith Littleton[1], Professor Julie Park[1]
[1]*The University Of Auckland, Auckland, New Zealand*

Introduction
Concerns about human tissue being used for research purposes are well known. This project investigated the sensitivities around approaches to human-derived microbial-pathogen laboratory research, focusing on tuberculosis (TB) isolates with three community groups. Findings from the study can inform health guidelines and policies for the treatment, management and use of human-derived pathogen samples

Setting
New Zealand. The three participating community groups were: 1. Māori; 2 Afghan; 3. a Pacific community.

Methods
This multidisciplinary research used a qualitative, kaupapa Māori-consistent approach. The research was Māori-led and adopted a partnership approach with non-Māori communities. It operated under a critical, structural analysis to promote benefits to communities through the inclusion of Māori and non-Māori participants and researchers. Data collection included: consultative hui (formal meetings); focus group interviews; individual or pair interviews. Data was thematically analysed using a general inductive approach.

Findings
Thirty people participated in the research. Participants expressed a broad range of understandings of TB from biomedical explanations to social environmental explanations. Stigma and discriminatory experiences of migration strongly influenced understandings.

All communities favoured isolates being used to prevent, and/or manage TB and emphasized the importance of patient consent at the time samples are collected.

There were a range of sensitivities about the use of isolates. Cultural sensitivities centered around the mauri (life force) of the isolate and application (or lack) of tikanga (cultural practices).

Other concerns related to the role of researchers, sovereignty and governance of research processes, and maintaining privacy of those who give samples.

Implications
As well as emphasizing the importance of data sovereignty and culturally safe processes in human-derived microbial-pathogen laboratory research, this project demonstrates the value of Indigenous research and methodologies in providing community voice and participation in research contexts

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Examining transformations within Indigenous primary health care policy in Alberta, Canada: A provincial analysis of policy reform

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Introduction/background
Primary healthcare (PHC) transformation has been highlighted as a key pathway to achieving health equity for Indigenous peoples. This requires systemic transformation framed within the decolonization of healthcare through embracing reconciliation, cultural safety, and structural competency. In Alberta, Canada, PHC services within First Nations, Métis, and urban contexts continue to be fragmented, under-resourced, and disconnected from mainstream PHC services. A policy analysis was conducted to a) identify policies that were considered for implementation or implemented in Alberta to advance Indigenous PHC; and b) examine Indigenous engagement in PHC policymaking.

Setting
This project is a component of collaborative health policy and systems research (HSPR) conducted by the Indigenous Primary Health Care and Policy Research network in Alberta. This policy analysis focuses on the development of Indigenous PHC policies within Alberta, which historically, have been predominantly developed for First Nations and Métis populations.

Methods
This research was underpinned by punctuated equilibrium theory in order to explain Indigenous PHC policy change within Alberta. We convened a virtual meeting with key policy actors in Alberta to identify a timeline of policy events related to shifts in Indigenous PHC. A formal policy document search was conducted in accordance with the policy events identified. Documents will be analyzed using the Policy Triangle Framework and the Ripples Framework for Meaningful Involvement (to assess the degree of Indigenous engagement in policy).

Results
This analysis will support a comprehensive understanding of Indigenous PHC policy development in Alberta, specifically where ‘windows of opportunity’ have occurred. Furthermore, we hope to understand how and when Indigenous knowledge-holders have been involved in PHC policy-making processes.

Implications
Indigenous peoples need to be at the helm of policy decisions that govern their PHC experiences. This analysis of policy reforms will set the groundwork for future HPSR focused on advancing Indigenous PHC and health equity.

The use of consent forms in a “call from class” model of dental care for Indigenous children.

Dr Nicole Stormon[1]
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Introduction

Dental caries is one of the most prevalent non-communicable diseases in children under 14 years of age in Australia. Aboriginal and Torres Strait Islander (hereafter respectfully referred to as Indigenous) children reported a disproportionately higher prevalence of dental disease compared to their age-matched counterparts.

Population/setting

To improve access to dental care a community-controlled service provides culturally appropriate dental services on the site of an Indigenous school in Brisbane. The dental clinic utilises a “pull from class” model of care. Consent forms seeking permission to undertake a dental examination without a parent/guardian present during school hours are sent home. When the forms are returned, the student is located in class and a dental examination is undertaken.

Methods

A retrospective audit of dental records from 2019 and 2020 were undertaken. The number of consent forms sent and returned were recorded.

Results

In 2019, 87% (n= 220) of the school population were sent consent forms. Of the forms issued, 70% (n=154) were returned. Almost all students required further treatment (90%, n=137) and were sent a treatment consent form. Three-quarters (n=102) of the treatment consent forms were returned. Of the total student population, 67% (n=171) were not seen or had outstanding treatment from unreturned forms. Proportions of incomplete treatment and unseen students were similar in 2020 (64%, n=173).

Implications

In this model barriers are lessened by providing a free dental service on the school site. Consent is an ethical and legal necessity to undertake dental examination and treatment. Using physical forms were effective for gaining consent for most children. However, less than half of the school population’s dental treatment were completed. Future studies should be conducted to explore the acceptability of using consent forms by parents/guardians and different models to gain consent for children from complex social circumstances.

Symposium 8: Reducing the trauma involved in injury data linkage analysis: tips for effectively using linked administrative data to evaluate and improve health services

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Queensland's Road Safety Data Bureau (RSDB) and the Serious Injury Data Linkage Project: The benefits of a novel co-located, Inter-agency collaboration

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Introduction/background

The RSDB was established as an innovative cross-agency, co-located team in 2019 consisting of four participating agencies namely the Motor Accident Insurance Commission (MAIC), Department of Transport and Main Roads (TMR), Queensland Police Service (QPS) and Queensland Health (QH). The objectives are to facilitate data linkage between agencies, establish a linked database with road crash, hospital admission, police, ambulance and insurance claim data to inform trauma health services and road safety. It will conduct key research projects using secondary data only.

Population/setting

The cohort includes all individuals involved in a serious road crash in Queensland between January 2015 and June 2020.

Methods

The RSDB provided the personal identifiers from the Queensland Road Crash Database (QRCD) to QH-Statistical Analysis and Linkage Unit (SALU) for linkage to occur. Other data sources to be linked include the Queensland Hospitals Admitted Patient Data Collection (QHAPDC), Emergency Department Collection (EDC) and Queensland Ambulance Service (QAS). Description of the patient journey, from roadside to hospital, will be undertaken to enable better estimation of the true burden of serious road trauma.

Results/findings

Data linkage across governmental agencies will allow better counting of serious injuries, particularly to cyclists and motorcyclists, which are currently under-reported in road crash data. It will also provide an in-depth understanding of injury types as well as confirm hospital admission, all of which will improve modelling and predicting road-related trauma health service needs

Implications/key message

Data-linkage undertaken by the RSDB will inform whole-of-government decision-making and approaches to road safety policy and road transport injury-related health services.

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How to group episode-based data into injury events for longitudinal analysis

Dr Shahera Banu[2,5], Professor Kirsten Vallmuur[1,2], Dr Victoria McCreanora[1,2], Associate Professor Cate Cameron[2,1], Dr Angela Watson[3], Dr Rania Shibl[4], Professor Steven McPhail[1,6], Jacelle Warren[2,1]
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Introduction/Background

Trauma patients often require multiple hospital admissions for ongoing treatment, including acute care, rehabilitation, or readmission due to complication. It is also possible that a new injury could occur during the recovery. Linked hospitalisations data, therefore, comprise multiple episodes of care for one patient which may or may not be related to the same injury event. When analysing linked data related to a patient's health service use following injury, it becomes pivotal to identify and group episodes of care related to one injury event. The presentation proposes a standardised approach to grouping episode-level data for longitudinal analysis in health services research.

Population/setting

Injury patients admitted to Queensland hospitals for acute care with a separation date between 01/01/2012 and 31/12/2016.

Method

Contiguous episodes of care (i.e. episodes that are temporally related) were firstly defined. Contiguous and a related non-contiguous episode with matched principal diagnosis and external cause codes were then grouped into an encounter. Encounters that occurred within a clinically acceptable timeframe of each other, and where the principal diagnosis and external cause codes were matched, were then grouped into an injury event.

Results/findings

There were 425,485 unique patients who had 581,351 acute injury episodes over the 5-year period. These episodes were grouped into 510,569 injury encounters which represented 502,001 injury events. Analysis by episode as the core unit would inflate the number of events by 13.6% and would underestimate the cumulative length of stay across the injury event by 0.43 days on average.

Implication/key message

The use of linked data in health services research is powerful for accurately estimating healthcare and personal burden following injury. Careful consideration of the options available when identifying injury cohorts and grouping data into units of analysis (episodes/encounters/events) is essential to avoid misrepresenting the information contained within linked administrative data.

From roadside to recovery: Long-term burden and cost of transport-related injuries impacting the Queensland healthcare system

Ms Jacelle Warren[1,2], Dr Victoria McCreanor[2,1], Prof Kirsten Vallmuur[2,1]
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Introduction/Background

Treatment and recovery following injury can be lengthy, comprising multiple interactions with the hospital system for initial acute care, subsequent rehabilitation, and possible readmission. For injuries sustained in transport crashes, the recovery journey may also include contact with injury compensation insurers. A push by government to increase value and use of secondary data sources has created impetus for longitudinal research using linked data. The aim of this presentation is to discuss a linkage framework that encapsulates the patient treatment journey through the health and injury compensation systems.

Population/Setting

All transport-related hospital admissions, CTP claimants and workers' compensation claimants sourced from administrative databases in Queensland over a 6-year time frame (01/01/2012 to 31/12/2017).

Method

Demographic and treatment data for an all-injury cohort were requested from five sources (i.e. ambulance, emergency department, hospital admissions, workers compensation and CTP claimants). Logic for selecting transport-injured patients specifically, and linking records between sources, is being developed and will be used to estimate the burden and cost of long-term treatment for different road user groups (e.g. motorcyclists, vehicle occupants, cyclists).

Results/Findings

Between 2012 and 2017 in Queensland, data from the all-injury cohort was received for 3.3 million emergency department presentations, 2.63 million hospital admissions, 300,000 workers compensation claims and 41,000 CTP claims. Records were also received for 161,843 ambulance attendances already reduced to a broad transport-injured subgroup. A preliminary logic framework connecting these sources will be presented, and preliminary burden estimates provided.

Implications/key message

A comprehensive framework to enable effective linkage of people within and between health and compensation databases is vital for correctly assessing the burden and cost of RTC-related injury in Queensland. With correct estimates, Queensland, and other jurisdictions, will be better placed to establish preventative measures in road safety and guide trauma care resource planning into the future.

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Using linked administrative data for improved estimates of healthcare costs: caveats, limitations and examples of best practice.

Dr Victoria McCreanor[1,2], Ms Jacelle Warren[2,1], A/Prof Cate Cameron[2,1], Dr Angela Watson[3], Dr Rania Shibl[4], Dr Shahera Banu[2,5], Prof Steven McPhail[1,6], Prof Kirsten Vallmuur[1,2]

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Introduction/background

Understanding the costs of hospital care is essential to assessing its value. Linked administrative costings data can give greater information about individual hospital stays than using average Diagnosis Related Group (DRG) costs.

Because linked datasets are large, data for individual patients cannot be examined in detail. Strategies are needed to ensure estimates of costs of care are accurate. The presentation describes key methods for working with linked clinical costings data, caveats and limitations. We also provide examples of the effect of different approaches on costs estimates.

Population/setting

Patients admitted to Queensland hospitals (January 2012 – December 2016) due to an injury.

Method

We used clinical costings data linked to Queensland Hospital Admitted Patient Data Collection information for patients admitted due to injury. Contiguous episodes of care were grouped into “encounters” (e.g. where people moved facility but were not discharged home), to estimate the costs of the first hospital stay for each injury. Costs for private facilities were unavailable. Therefore, if a person had several episodes in their first encounter and at least one at a private facility, the costs for that encounter were excluded when estimating mean costs. Costs were inflated to $AUD 2021.

Results/findings

Over the 5 years, there were 581,351 episodes of care for 510,569 encounters, for 425,485 patients. The total cost of all first encounters was $2.8 billion. If only the first episode of care for each person was counted, the total costs of care were $579 million less. Similarly, when estimating the mean cost per encounter, if all encounters were included the mean was $6,627, compared to $8,189 when encounters with missing cost components were removed.

Implications/key message

Analysis of linked costings data requires careful consideration. The total and mean costs of hospital care can be substantially underestimated if the data are incorrectly grouped.

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Incorporating carbon into healthcare’s future: adding carbon emissions to health technology assessments

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Background
At Glasgow COP26 fifty countries committed to develop low-carbon health services, with fourteen of these countries further committing to a net-zero carbon health service by 2050. There is currently, however, little data on the health impacts of healthcare, nor any methods to include carbon emissions in clinical decision making.

Methods
We investigated how to integrate carbon emissions calculated by life cycle assessment (LCA) into health technology assessments. Health technology assessments are extensively used in developing clinical and policy guidelines by individual public or private payers, and by government organisations.

Findings
We suggest that the quantification of carbon emissions in healthcare activities should be undertaken using process-based life cycle assessment (P-LCA). Further, we propose that carbon emissions could be incorporated using one of these four approaches: as a decision modifier when two or more technology alternatives are clinically and economically similar; as a criterion in a multi criteria decision analysis (MCDA); monetised and included in a cost-benefit (CBA) analysis; or as an additional cost in a cost-effectiveness analysis (CEA).

Implications
As healthcare moves into a carbon constrained world, decision makers will increasingly have to include carbon emissions when evaluating both new and existing treatments. There are no technical impediments to incorporating carbon emissions calculated by LCA into health technology assessments. Rather, the main challenge is a practical one, as to date few LCAs have been undertaken in healthcare. It is therefore important to establish a healthcare specific LCA database, so as to speed up the decarbonisation of healthcare.

Effectiveness of Quality Incentive Payments in General Practice (EQuIP-GP) cluster randomised trial: impact on patient-reported primary care continuity, accessibility, coordination and comprehensiveness of care, and self-rated health

Prof A Bonney[1,2], Prof G Russell[3], A/Prof J Radford[4], Prof N Zwar[5], A/Prof J Mullan[1], Prof M Batterham[1], Prof D Mazza[3], Dist Prof G Peterson[4], Snr Prof S Eckermann[1], Dr C Metusela[1]
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Introduction / Background
Australian health funding policy is moving towards voluntary patient enrolment with general practices for older patients, with expected consequent improvements in continuity of care. Continuity has been associated with improved patient outcomes, including reduced hospitalisations and mortality. This study evaluated whether an intervention with a funding model for patient enrolment in elevated risk patients influenced relational continuity of care and other patient-reported measures.

Population / Setting
General practices in metropolitan, regional and rural Victoria, NSW and Tasmania, and attending patients aged 18-65 years with a chronic illness, or aged over 65 years.

Method
The cluster-randomised trial ran from August 2018 – July 2019. Participating patients within intervention practices were offered enrolment with a preferred GP, a minimum of three longer appointments and review within seven days of hospital admission. Intervention practices received incentives for longer consultations (dependent on reducing unnecessary prescriptions and tests), early post-hospital follow-up, and hospitalisation reductions. The Primary Care Assessment Tool was used to measure patient-reported experience and EQ-5D-5L Visual Analogue Scale measured self-rated health.

Results / Findings
A total of 774 patients, from 34 practices participated. Response rates for questionnaires were >90%. From a maximum of 4.0, mean baseline scores for relational continuity and coordination were between 3.38 and 3.43, with no significant between-group differences in changes pre-post trial. Mean scores for accessibility and comprehensiveness of care were between 2.74 and 2.98 at baseline, with no significant changes across the trial. There were no significant changes in mean EQ-VAS scores.

Implications / Key Message
Patients reported high baseline relational continuity and coordination of care, which was not influenced by the intervention, suggesting incentivised enrolment does not provide good health system value for this group. We recommend further research targeting patients experiencing discontinuity, e.g. those marginalised due to language, cultural or socioeconomic barriers.

Did the Chronic Disease Dental Scheme increase dental utilisation for the target population?

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Introduction and background

In 2007, the Commonwealth Government expanded the Medicare Benefits Schedule by introducing the Chronic Disease Dental Scheme (CDDS). This program provided subsidised dental services to the value of $4,250 over two calendar years for those with a chronic disease. It was initially estimated to cost 385 million over four years. However, in the final year in 2012, the annual estimated cost was around $1 billion. Citing large overspends and other issues with the program, the government closed the program. Previous research on this program has focused on the overall costs and the distribution of program costs, with limited evaluation of the CDDS's impact.

Methods

Using a quasi-experimental method with data from the Australian Longitudinal Study of Women Health for women aged 56-67, this study examines whether there was an increase in dental visits for those who were eligible. I examine the results by stratifying the women into those with and without a chronic disease over and by those who became eligible through development of a chronic disease during the program's operation.

Results

No increase in dental visits is found for those who were eligible for the CDDS as compared to those who were not. Rather, the results show those with private health insurance, those who attended the GP, those with relatively better self-rated dental health and those with a dental health problem are more likely to have a dental visit.

Implications

These results suggest that factors other than the program's existence may have influenced the likelihood of a dental visit among the target population. This research adds to the growing literature on the results of extensions to public health insurance and are important to guide future dental policy options.

Trends in Household Expenditure on Health in Aotearoa New Zealand: Findings from the Household Economic Survey (2007-2019)

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Introduction

In Aotearoa New Zealand (ANZ), Primary Health Care (PHC) is funded through a mix of government funded and out-of-pocket (OOP) contributions. Despite substantial public health contributions, individual OOP payments on health services are also sizable, contributing about 13% of total health spending.

Setting/Population

This paper reports on trends in OOP household expenditure on health by people living in ANZ, as well as differences across NZ European, Māori, Pacific, Asian and MELAA population groups.

Methods

We used data from the New Zealand Household Economic Survey to analyse health spending between 2007 – 2019. Ethical and Regional variables where also analysed in addition to expenditure survey categories.

Results

Results show, after adjustment for inflation, that households are spending on average $41.9 on health per week in 2019 compared to $29.7 a week in 2007. Overall health spending by households has increased by 41% over the study period. Dental services are the most noticeable driving increase in OOP household spending, increasing by 107% over the study period. Noticeable inequities in health spending exist; Pacific people show the lowest weekly expenditure and the smallest increase in spending on health, Māori also consistently show lower levels of health spending than New Zealand Europeans.

Implications

Not only are families in ANZ paying more for health care than ever before, but also the share of health spending out of total household expenditure has increased from 2007 - 2019. The implication of these findings adds to the body of knowledge that shows worsening inequity of access to health resources for Māori and Pacific populations. These findings may be important to consider considering the current health system reforms.

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The lifetime health costs of intimate partner violence: A prospective longitudinal cohort study with linked data for out-of-hospital and pharmaceutical costs

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The health effects of intimate partner violence (IPV) can be long-term, developing years after the IPV began and persisting after IPV has ceased, but there is little research on how these impacts affect long-term or lifetime health costs. This study aimed to quantify the excess lifetime out-of-hospital and pharmaceutical health costs of women who experience IPV in Australia by applying a novel combination of econometric and actuarial techniques.

We used a large prospective representative longitudinal survey of women, the Australian Longitudinal Study on Women's Health (ALSWH), linked with unit-record administrative national health insurance data, collected over a twenty three-year period. First, we used an econometric approach to estimate the impact of IPV on health costs over the duration of the dataset. We used fixed effects to remove time-invariant unobserved confounders, explored the sensitivity of treatment effects to the inclusion of the observed controls, and applied methods developed by Oster (2019) to estimate the unbiased treatment effect in the presence of unobserved confounders. Second, we estimated the costs over a lifetime horizon using an actuarial approach that uses machine learning techniques to predict future annual costs for each individual woman within a microsimulation model.

We find that women with a history of IPV have $48,413 (2020 AUD) per-person higher lifetime health costs than women who do not experience IPV. We find that the adverse health impact of IPV translates to increased health costs over the lifetime regardless of whether the initial IPV experience is early or later in life. This suggests that policies reducing the incidence of IPV will have long-term impacts on the healthcare system.

Primary Health Care expenditure as a share of public health expenditure in Aotearoa New Zealand: How has it increased over time?

Dr. M Irurzun Lopez[1], Dr. M Jeffreys[1], Prof. J Cumming[1]

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Introduction

Prioritising Primary Health Care (PHC) is regarded key to improved health and health equity. From an economic perspective, “prioritising PHC” should mean an increase in the share of the health budget for PHC compared to specialised (hospital) services. Across 22 OECD countries (Aotearoa New Zealand excluded), approximately 14% of health funding is spent on PHC, with the remainder on specialised services. This relatively small proportion suggests there is an opportunity to shift resources to benefit PHC with little effect on specialised care.

The New Zealand PHC Strategy (2001) set to strengthen PHC with increases in funding and reforms to improve access to care and health equity. We examine how PHC expenditure, total and relative, has evolved in Aotearoa New Zealand, to determine to what extent PHC has been prioritised.

Method

We analysed PHC funding as a proportion of total public health expenditure for fiscal years 2008/9-2019/20. We used transfers from Ministry of Health to Primary Health Organisations (PHOs) as a proxy for PHC funding. This includes patient subsidies and investments in PHC capacity (Flexible Funding Pool, performance incentives, and General Medical Services subsidies).

Results

Preliminary results show that PHC funding in Aotearoa New Zealand amounted to NZ$1,128 million in 2019/20, a 36% increase in real terms since 2008/09. PHC funding amounted to about 6% of total publicly funded health expenditure, with minimum variations during the period. Further results will include changes within funding composition, potential additional PHC funding sources, breakdown by DHB, and comparisons with other high-income countries.

Implications

This analysis will inform the major health and disability system reforms in Aotearoa New Zealand announced in 2021. It emphasizes the need to sustain economic allocations which underpin health strategies. Internationally, it will contribute to deliberations on effective allocation of health resources to keep up efforts to revitalise PHC.

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Spatial clusters for potentially preventable hospitalisations (PPHs) for chronic conditions and access to allied health services in South Western Sydney

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Background
Potentially preventable hospitalisations (PPHs) for chronic conditions (CC) are increasing in Australia. Many PPHs for CC are amenable to allied health (AH) interventions however the number of AH professionals in primary and community care in South West Sydney (SWS) is lower than in more affluent areas.

Setting and aim
To use geospatial analysis to determine whether there is an association between the location and density of primary and community AH services and hotspots of PPHs for CC in SWS.

Methods
The study involves the comparison of two datasets:

1. Hospital admission data for PPHs for CC for all age groups, including postcode, from all public hospitals in South West Sydney Local Health District (SWSLHD) from 1/07/2016 to 30/06/2019. Non-AH related PPH conditions were excluded.
2. The location and availability of primary and community AH services in SWSLHD and South West Sydney Primary Health Network was obtained from National Health Services Directory in 2019 and checked for accuracy. Data included: postcode, number of clinicians, opening hours, out-of-pocket costs, and languages spoken.

Geospatial analysis was used to identify cold spots and hotspots of PPH. Logistic regression was used to determine what factors predicted the odds of a PPH being in a hot or cold spot. Models were run separately for hot and cold spots.

Results
Three hotspots were identified in SWS. In a hotspot, the odds of admission were 1.68 (95%CI 1.35, 2.07) compared to 1.06 (95%CI 0.8, 1.36) in a cold spot. Higher density of AH services and available opening hours were associated with a decreased odds of PPHs (OR 0.7, 95%CI 0.51,0.96 and OR 0.64 95%CI 0.48,0.85 respectively).

Key message
Availability of AH services was associated with a lower likelihood of PPH in cold spots. Could increasing access to affordable AH services reduce avoidable admission for PPHs?

“I try to sort of float in the middle”: Nurse navigation and the interface of access to care

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Background

Early definitions of access to care are unidimensional, focusing on either the perspective of the health system or the patient. More recently researchers have sought to conceptualise access as a multidimensional interface between dimensions of health systems and abilities of individuals. However, how such contemporary conceptualisations relate to complex human experiences of access remains obscure.

Setting

Nurse navigation is an innovative model that seeks to operate at the interface of access; designed to challenge barriers to care for people with highly complex health and social needs.

Methods

This qualitative study sought to examine how nurse navigators (NNs) work at the patient/system interface in practice. Data collection involved hour long in-depth interviews with five NNs in Queensland, Australia. Reflexive thematic analysis was used to examine transcribed data, with Levesque et al.’s (2013) conceptual framework of access to care adopted as a lens to examine the NNs’ role at both system and patient levels.

Findings

NNs articulated their role as a “bridge in the middle” between patients and system. Three key themes were identified that describe how NNs operated to enhance access at the interface by: challenging norms of care, facilitating patient empowerment and engaging in relationship building. Efforts to challenge norms of care sat most prominently across system side dimensions. Whereas on the patient ability side, empowerment featured as an overarching theme. Relationship building with and between patients and health care providers, was a cross cutting theme that covered both the system and patient sides, reflecting the critical role of relationships in facilitating access to care.

Implications

Our findings give the concept of person-centred access to care genuine meaning. We demonstrate how NNs forge multidimensional relationships and negotiate complexities between system and individuals, to provide care that is highly individualised and comprehensively responds to health and social needs.

Specific Timely Appointments for Triage (STAT) to reduce wait times in a medical outpatient clinic

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Introduction

Managing demand is a problem in many areas of healthcare, including specialist medical outpatient clinics.

A data-driven, evidence-based model of service delivery called Specific Timely Appointments for Triage (STAT) has reduced waiting times in outpatient services providing allied health and multi-disciplinary care. STAT involves analysing demand and supply; reducing backlogs; and amending scheduling and booking procedures to match supply and demand and avoid the use of waitlists.

An epilepsy clinic in a major metropolitan health service had a waiting list of 599 people, some waiting up to 8 years. This study aimed to determine whether STAT could be applied to this setting to reduce wait time from referral to first appointment.

Method

This implementation study used a pre-post design (12 months pre, 10 months implementation and 6 months post). The primary outcomes were number on the waitlist and days from referral to first appointment.

Results

Compared to pre-implementation mean wait time reduced from 58 to 50 days, MD 8 days (95% CI 0.5 to 15.6) and the average number of people on the wait list at the beginning of each month reduced from 644 (SD 94) in the pre to 12 (SD 12) in the post-intervention period. Larger wait time reductions were observed in lower priority patient groups.

Implications

Waiting time reductions previously observed with the STAT model in outpatient allied health and multi-disciplinary settings were replicated in a medical outpatient clinic. Moderate reduction in wait time and large reductions in numbers of people on the wait list can be achieved with a low-cost data-driven approach. This suggests that STAT could offer a practical, effective approach to reducing waiting times in outpatient clinics with implications for thousands of patients needing access to timely specialist medical care.

Disabled people's experiences in accessing healthcare and disability support during the COVID-19 pandemic: Short and long-term impacts on health outcomes

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Introduction

The COVID-19 pandemic and associated lockdowns in Aotearoa New Zealand have led to compounding challenges for disabled people in accessing health care and disability support services. However, very little is known about these challenges and potential short or long-term impacts of inequitable healthcare access on disabled people's health outcomes. Hence, this research provides critical insights into the impact of the current pandemic response on health and healthcare access for disabled people.

Population/Method

We interviewed 60 participants about their experiences accessing health care during the pandemic. Participants were disabled or were the parent of a disabled child(ren). Interpretive description methodology underpins our research project, meaning that analysis focuses on identifying factors tied to improving health system practices.

Findings

Initial analysis revealed six overarching themes: reduced and compromised access to health care and support, exacerbating factors, protective factors, short and long-term negative impacts, impairment specific impacts, and compounding vulnerability.

Implications

Significant gaps exist, impairing effective health service access and delivery for these populations. While anecdotal information exists around these gaps, this work represents one of the first projects internationally to inform COVID-19 policy and clinical practice change for disabled people. The research will inform future health and disability system planning and reforms to provide safe and equitable access for disabled people to healthcare during emergencies, pandemics, and humanitarian crises.

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Factors associated with acute care service use after epilepsy hospitalisation in people with intellectual disability

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Background

Many people with intellectual disability would experience hospital admission for epilepsy. This work sought to identify factors associated with unplanned acute hospital readmission and emergency department (ED) presentation after hospitalisation for epilepsy in people with intellectual disability.

Setting

New South Wales, Australia

Method

A retrospective cohort study using linked administrative datasets. We identified 3293 people with intellectual disability aged 5-64 years with a hospitalisation for epilepsy 2005-2014 in New South Wales, Australia. We examined unplanned readmission and ED presentation within 30 or 365 days and associations with demographic, socioeconomic, and health status variables. Modified Poisson regression with robust estimation was used to model outcomes within 30 days. Negative binomial regression was used to account for the overdispersion of the data and to model 365-day outcome rates.

Results

About half of the cohort had an unplanned readmission and ED presentation within 365 days of the index hospitalisation. In fully adjusted models, being female, a young adult, having a longer or acute care index admission, mental and physical comorbidities, and a history of incarceration were associated with an elevated risk of readmission or ED presentation. The strongest association was observed between history of self-harm and 365-day readmission (IRR 2.15, 95%CI 1.41-3.29).

Conclusions and implications

Socio-demographic, justice and health factors are associated with unplanned readmission and ED presentation risk after hospitalisation for epilepsy in people with intellectual disability. Interventions targeting improving continuity of care should be tailored for individuals and their support workers. The findings also emphasise the importance of person-centred multidisciplinary care across different health sectors.

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The Antenatal Risk Questionnaire-Revised: validation and use in a model of integrated psychosocial care

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Background

Australian national clinical practice guidelines recommend that all women be offered a psychosocial assessment as a routine component of their pregnancy and postnatal care. Australia's Medicare Benefits Schedule (MBS) items for obstetric services now also include a requirement that a 'mental health assessment', inclusive of screening for substance use and domestic violence, be undertaken as part of antenatal and postnatal care.

The newly developed Antenatal Risk Questionnaire-Revised (ANRQ-R) is a brief tool that fulfils these MBS requirements and evidence-based criteria for clinical best practice recommendations. This study aimed to contribute normative data for the ANRQ-R and to evaluate its psychometric properties.

Population/setting

The ANRQ-R was embedded in the PIPA Project - a large-scale comparative effectiveness trial undertaken at the Royal Hospital for Women, Sydney.

Methods

Over 7000 women completed the ANRQ-R at their antenatal booking in appointment. A sub-group of women also completed the ANRQ-R and SAGE-SR (reference standard) in the second (N=1166) and third (N= 957) trimesters and at 3-months postpartum (N=796).

Results

ROC analysis yielded acceptable areas under the curve (AUC) when the ANRQ-R was used to detect current (AUC=0.789-0.798) or predict future (AUC=0.705-0.789) depression or anxiety. Test-retest reliability for the ANRQ-R total score was also good (ICC=0.77). Clinically relevant cut-off scores were identified.

Implications

The ANRQ-R allows health care professionals to routinely use a single tool to identify women at increased risk of poor mental health outcomes, or needing further mental health assessment, so that appropriate referral and management options can be offered. A real world examples of how the ANRQ-R has been integrated into a maternity data platform and service delivery model, and its clinical and cost-effectiveness in this context, will also be discussed.

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What Māori and Pacific women in Aotearoa New Zealand know about maternal vaccinations and what factors influence their decisions.

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Background

Influenza and pertussis immunisation is freely available for pregnant women in New Zealand to protect them and their infants from potentially life-threatening infections. However, vaccination rates are inadequate and inequitable. Māori and Pacific women have lower rates of maternal vaccinations than other groups and a greater disease burden. We explored what Māori and Pacific women know about immunisation during pregnancy and what influenced their decision to be vaccinated.

Population

Māori or Pacific women over 16 years of age who were currently pregnant (or had recently been pregnant) residing in Dunedin or Gisborne, New Zealand.

Method

A semi-structured interview guide was developed with questions focusing on knowledge of pertussis and influenza vaccination during pregnancy and decision-making. Interviews were conducted between May and August 2021. Analysis of interviews was undertaken using a directed qualitative content approach. Data were arranged into coding nodes based on the study aims (deductive analysis) and then coded into themes and subthemes (inductive analysis).

Results

Some women are unaware of vaccines that are recommended during pregnancy and often the severity of potential infection was underestimated. Sometimes women knew of potential harms of influenza infection in pregnancy or pertussis infection in infancy, but still did not get vaccinated. Positive influences on decision-making were being well-informed, recommendations from healthcare provider, and understanding they were protecting their infants' health. Negative influences on decision-making were lack of information, not being offered the vaccination, concern over vaccine safety, and unable to prioritise vaccination.

Key messages

Failing to address lack of understanding about vaccine benefits and overestimation of potential vaccine risks reinforces negative influences to immunisation. Ensuring Māori and Pacific women are well-informed and receiving clear recommendations from a trusted antenatal healthcare provider should be a priority.

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Building a culture of primary birth: Undertaking qualitative case study research with primary maternity units

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Introduction
High rates of intervention in birth are a significant health issue. Internationally, research has associated birthing in a primary maternity unit with lower rates of intervention. In New Zealand, primary maternity units are recommended as a site for birth for healthy women at low risk of complications, yet only 10% of women birth in primary maternity units. Research on birth place decision-making identifies perceptions of safety as the primary reason women choose to birth in a secondary/tertiary hospital; the availability of pain relief is a secondary factor. The aim of this study is to examine how maternity units build a culture of primary birth.

Methods
Using a case study design, qualitative research is being undertaken with 'successful' primary maternity units – those in which rates of birth have increased over several years – to examine how norms of primary birth are built among the community of health care workers and birthing women. A case study methodology is adopted to establish a nuanced description of birthing unit drawing on reflexive thematic analysis of key informant and user interviews. The study design offers insight into the culture and organisational practices that support primary birth.

Findings
Wahine Māori and younger mothers are among the highest users of primary maternity units in NZ and increasing rates of hospital birth may undermine the support such facilities can offer vulnerable new mothers. Early findings indicate a culture of care is established around primary maternity units, leveraging community support to influence local birthing norms.

Implications
Current research indicates that women's expectations of birth support a medicalised model of care with implications for both levels of intervention and cost. Successfully leveraging social support may increase interest in birthing within community settings.

Nurses’ and midwives’ experiences of an Electronic Medical Records (EMR) system at a large, metropolitan, multi-site health service in Australia

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Background

There is currently inconsistent evidence about nurses’ and midwives’ experiences and of using electronic medical records (EMR); in particular, the impact on their workflow and ability to provide high quality patient care. The aim was to describe nurses’ and midwives’ experiences of an EMR, eight months after the first phase of EMR implementation.

Setting

A large, multi-site public health service in metropolitan Melbourne, Australia.

Methods

Nurses and midwives were invited to participate in a focus group. Four focus groups were held. Focus group transcripts were analysed using thematic analysis.

Results

Thirty-nine nurses and midwives participated. Most were nurses (n=25, 64%) and female (n=31, 80%). All participants rated their computer skills as at least ‘average’. Mean (SD, range) years of clinical experience was 15.6 (12.2, 2 - 40). Three main themes emerged, related to the impact of the EMR on (1) nurses’ and midwives’ workflow (2) patient care and communication (c) nurses’ and midwives‘ wellbeing. Positive impacts on workflow included easier access to real-time patient data, while workflow was perceived to be disrupted by the EMR being slow and difficult to navigate, system outages and lack of interoperability between the EMR and other systems. These factors were reported to contribute to frustration, stress and exhaustion among nurses and midwives. While some nurses and midwives reported that the EMR improved their communication with patients and reduced medication errors, others indicated that the EMR had a negative impact on patient care and communication.

Implications

An EMR can improve, but can also impact negatively on, nurses’ and midwives’ workflow and quality of care. Significant resources are required to support nurses and midwives in the first 8 months after EMR implementation, especially if the EMR is implemented alongside other systems.

"Do you want another baby after this?": How midwives discuss contraception with pregnant and postpartum women

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Background

Discussing contraception is considered part of midwives' scope of practice in Australia, yet most midwives receive minimal training in conducting these discussions. There is a lack of guidance available in Australia on how and when midwives should discuss contraception, and little is known regarding midwives' experiences.

Methods

As part of a larger study of midwife-led provision of contraceptive implants, we conducted semi-structured interviews with 13 hospital-based midwives and discussed their experiences of providing contraception information.

Results

Midwives perceived that most women found discussing contraception with a midwife to be highly acceptable, including those from cultural or religious backgrounds that may be stereotyped as being uninterested in contraception. Despite this, several midwives stated that due to the busy clinical environment, they tended to prioritise speaking to women they viewed to be most interested in postpartum contraception, including those of high parity, who had an unintended pregnancy, or were experiencing financial disadvantage or psychosocial stressors. Midwives' approaches to initiating contraception discussions varied widely. Most favoured introducing contraception into wider conversations about pregnancy spacing and women's plans for the future, in order to establish rapport and provide context to the discussion. Midwives felt that more than one conversation was necessary to allow women to consider the information before making a decision.

Implications

Most women appear to be open to discussing contraception with a midwife, and midwives are able to use different strategies to integrate these conversations into their practice. However, many women may still miss out on contraceptive information due to time pressures faced by midwives and cultural stereotypes that influence which women they prioritise for these discussions. National guidelines are needed that incorporate provision of contraception information as part of core midwifery practice, as well as provision of training and strategies to initiate and tailor contraception discussions to meet individual needs.

Increased demand for abortion information and advice during COVID-19

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Background
The COVID-19 pandemic has highlighted disparities in access to sexual and reproductive health (SRH) care, including access to abortion information and services. During the pandemic, the Family Planning NSW (FPNSW) Talkline continued providing free and confidential SRH advice and referral information for community members and health professionals. We undertook an audit of routinely collected Talkline data to compare enquiries regarding abortion care before and during the pandemic.

Setting
Family planning service

Method
FPNSW Talkline data, including service enquiries and self-reported demographics of callers, were extracted between January 2019 and December 2021. No identifiable information is recorded in this data.

Results
Enquires relating to the areas of medical abortion, surgical abortion, financial difficulties associated with abortion access, and other general abortion-related enquiries, accounted for 19% of Talkline enquiries before the COVID-19 pandemic (January 2019 to 10 March 2020). During the first Sydney lockdown between April and June 2021, abortion-related enquiries increased to 29% of Talkline enquiries, with a further increase to 34% during the second lockdown between July and September 2021.

Of the 3,223 callers with abortion-related enquiries during the COVID-19 pandemic, 41% were aged < 25 years, 21% were from a regional/remote area, 11% were from a culturally and linguistically diverse (CALD) background, 10% had a health concession card, 2% were from an Aboriginal and/or Torres Strait Islander background, 2% were living with a disability, and 15% reported having financial difficulties in accessing abortion care. There were changes in callers' demographics before and during lockdowns.

Implications
The FPNSW Talkline data suggests there was increased demand for abortion-related information and advice at the service during pandemic-related lockdowns. Promoting access to abortion services, including through telehealth, must be ensured during and beyond the COVID-19 pandemic. Additional support may be needed for particular groups, including young people and those from CALD backgrounds.

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Health Journey Mapping for busy clinical settings, detailed care planning and strategic evaluation

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Background
Aboriginal and Torres Strait Islander people may experience complex health care journeys due to distance, communication barriers and experiencing more than one health condition. They often navigate confusing and disjointed health systems, while also meeting family, community, caring, work and study commitments. Health professionals and health services strive to recognise and meet complex health care needs, but often find this challenging in busy clinical settings with different priorities, understanding and world views.

Population/setting
Indigenous peoples, health professionals/ hospitals, health services, community and primary health care.

Method
The team worked with Aboriginal and Torres Strait Islander patients and family members, clinicians, managers and researchers across Australia to co-design, test and evaluate the tools and education packages. The tools draw upon underlying principles of safety, equity and partnership, using 2 way communication, co-design and a strengths based approach, and align closely with Australian national quality and safety standards, in particular partnering with consumers, comprehensive care, communicating for safety.

Results
The tools provide a structure and process to map journeys, identify strengths and gaps in care, develop improvement action plans, and review effectiveness. Three different tools were designed; a clinical tool for admission and transfer of care in busy clinical settings; a more detailed care planning tool enabling more comprehensive understanding of what is needed to ensure optimal health and wellbeing outcomes, and; a strategic mapping tool that brings together the multiple perspectives of patients/clients and their family members, and of the health professionals caring for them.

Implications or key message
These tools can be used in hospitals, clinics and primary care settings to collaboratively identify and prioritise care needs. They can assist staff to embed culturally safe and responsive care into clinical practice and provide evidence of this for accreditation.

How do health services in Australia engage with culturally and linguistically diverse consumers? A documentary analysis of consumer engagement frameworks.

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Background
Consumer engagement is recognised as cornerstone for delivering patient centred high- quality care. Consumer engagement frameworks provide a conceptual structure for engaging consumers in decision-making processes at various levels of the healthcare system. However, there is a lack of evidence for how these frameworks support engagement with culturally and linguistically diverse (CALD) consumers in Australian health care. This analysis aimed to explore how consumer engagement is conceptualised, operationalised, and the implications of current consumer engagement frameworks for engagement with CALD consumers.

Method
A document analysis using Altheide's approach was conducted to guide a systematic search, selection, and analytic process. Federal and State level Australian government health department websites were searched for eligible publicly available engagement frameworks from January 2001 to July 2020. A narrative synthesis was conducted.

Results
Eleven engagement frameworks published between 2007 and 2019 were identified and analysed. Only four frameworks discussed engagement with CALD consumers distinctly. Providing culturally sensitive services, addressing language barriers, including CALD consumers in committees and providing cultural responsiveness training to healthcare staff were proposed as strategies to improve engagement with CALD consumers. While the focus remains on addressing language barriers, limited exploration of what culturally sensitive services looks like was presented.

Conclusion
Improving engagement with CALD consumers is identified as a priority to address inequalities in health care provision and outcomes, yet there is limited discussion of what culturally sensitive services look like and the resources needed to enhance CALD consumer engagement in decision making at all levels of the health system. Health services and policy makers can enhance opportunities for engagement with CALD consumers by being flexible in their approach by providing options for participation, implementing policies for reimbursement for participation, and evaluating and adapting the activities of engagement in collaboration with CALD consumers.

Management of low back pain in Australian emergency departments for culturally and linguistically diverse populations from 2016 to 2021

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Introduction

Guideline-discordant care for patients with low back pain (LBP) in the emergency department (ED) has been reported in previous studies. The primary aim of this study was to compare care delivery for LBP in Australian EDs between culturally and linguistically diverse (CALD) and non-CALD patients.

Setting

Retrospective review of medical records from EDs of three public hospitals in Sydney, NSW, Australia, from January 2016 to October 2021.

Method

This study included adult patients diagnosed with non-serious LBP at ED discharge. CALD status was defined by country of birth, preferred language, and use of interpreter service. The main outcome measures were ambulance transport, lumbar imaging, opioid administration, and hospital admission.

Results

Of the 14,642 included presentations, 7,656 patients (52.7%) were born overseas, 3,695 (25.2%) preferred communicating in a non-English language, and 1,224 (8.4%) required an interpreter. Patients born overseas were less likely to arrive by ambulance (adjusted odds ratio (aOR) 0.68, 0.63–0.73) than Australian-born patients. Patients who preferred a non-English language were also less likely to arrive by ambulance (aOR 0.82, 0.75–0.90), yet more likely to be imaged (aOR 1.12, 1.01–1.23) or be admitted to hospital (aOR 1.16, 1.04–1.29) than native-English-speaking patients. Patients who required an interpreter were more likely to receive imaging (aOR 1.43, 1.25–1.64) or be admitted to hospital (aOR 1.49, 1.29–1.73) compared to those who communicated independently. CALD patients were generally less likely to receive weak opioids than non-CALD patients (aOR range 0.76–0.87).

Key message

Patients with LBP from CALD background, especially those lacking English proficiency, are more likely to receive elements of guideline-discordant care in Australian EDs. Interventions to promote guideline-concordant care for these patients need to be developed.

What healthcare engagement strategies are suitable for consumers of culturally and linguistically diverse backgrounds? A national stakeholder analysis in cancer services.

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Introduction

Consumer engagement is a recognised mechanism for improving safety within healthcare settings. Culturally and linguistically diverse (CALD) population groups have been identified as having greater exposure to patient safety events; however, there is limited evidence of the use of engagement strategies to promote safety within this population. This study explored the suitability of current engagement practices to enhance safety for CALD consumers in cancer settings.

Method

Nine online focus groups were conducted with 43 participants from government and non-government organisations, consumer groups and research institutes that focussed on cancer care, patient safety and healthcare quality in Australia. Four focus groups concentrated on adolescents and young adults aged 12-25 years (AYA), and included service providers and consumer representatives. The topic schedule was informed by a systematic review of engagement strategies to enhance safety. Initial findings were developed as case studies to prompt discussion, which were then integrated with interactive polling to determine consensus regarding suitability of engagement strategies. Data were analysed using the framework method.

Findings

Three themes were identified: 1) suitability of engagement strategies; 2) opportunities for adaptation; and 3) the implementation context. Our findings suggest that designing and implementing suitable patient engagement strategies to enhance safety for CALD consumers was multifaceted. Opportunities for adaptation included multichannel methods, visual modalities, tailored design and accessibility to family and carers. Health system capacity and cultural competence of health service providers supported the feasibility of implementation. Fundamental inequities and sociocultural beliefs about cancer and accessing health care impacted the overall suitability of engagement strategies.

Implications

Current engagement strategies bear some relevance to CALD consumers, but may be insufficient in their modality or focus. Adaptations could be made to current engagement strategies to improve suitability for CALD consumers. Inclusion of CALD consumers and representatives in designing and implementing engagement strategies is essential.

Potential Barriers likely to Impact New Zealand's ethnic minorities Health Services in Long COVID

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Background and Aim

In New Zealand, the ethnic minorities affected by Long COVID-19 infections continue to experience prolonged symptoms for 12 weeks or more. Ethnic minorities consist of migrants, refugees, and floating populations, affected by pandemics since 2020. The aim of this study is to identify what potential factors form barriers to positive care experience from the health services.

Method

A Literature review and Qualitative Cross sectional ethically approved pilot study was conducted with the use of survey questionnaires. Twelve ethnic doctors and four of each of their patients of diverse ethnicities across Auckland were selected. Survey design had six categories of potential factors namely- access to benefit; language and communication; attitude and behaviour; cultural norms and beliefs; associated health conditions and perception. Using Chi-square test and Kruskal-Wallis test all variables are estimated through multiple linear regression analysis for interpretation of results.

Result: All participant doctors and patients confirmed the reciprocal benefit of better communication due common language usage. Almost 50% of patients experienced disadvantage by telemedicine, lack of coping with online support, delayed or lengthy phone conversations due to language barriers. Almost, 40% felt cultural and beliefs disparity. While more than 60% of ethnic minority patients had associated health conditions that compounded to negative care.

Implication: Based on the findings, a framework of recommendations were developed to build resilience among healthcare providers to bring positive wellness among Ethnic minorities. The value of this study is to facilitate innovation of diversity development tools to enable health care providers to communicate effectively. Secondly, to utilize available ethnic educated and experienced doctors and technical resources; to enhance communication, confidence, and positive care for ethnic minorities through free IT training. Finally, to reduce the recurring cost and burden on the health care system through effective health care delivery during Long COVID.

What Matters 2 Adults: Development of a preference-based scoring system for the WM2A wellbeing measure for First Nations adults.

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Background
The WM2A wellbeing measure was developed with Aboriginal and Torres Strait Islander adults to capture their holistic worldview of wellbeing. This contrasts with most quality of life instruments that are underpinned by Western biomedical models of health. The aim of this phase of the WM2A program was to develop a scoring system based on the preferences and values of First Nations adults.

Method
WM2A contains 32 items across 10 dimensions. An object case best-worst scaling (BWS) survey was used to elicit preferences for the 128 item-level combinations (32 items x 4 response levels each). The BWS used an incomplete block design. Participants were shown a series of choices sets each containing 3 items and asked to choose the best and the worst options. The survey was administered on-line or by telephone interview. A multinomial regression model was used to obtain preferences for all 128 item levels and formed the basis for weighting items in a 0 to 100 preference-based scoring scale.

Results
A total of 1,320 adults (58% female, mean age 40 years (SD 15), 54% rural) completed the BWS survey. Of the 10 dimensions, 'Spirit & Identity', 'Pride & Strength' and 'Connection with Others' had the highest Level 1 (best) average scores of 4.2, 4.0 and 4.0, respectively. The lowest Level 4 (worst) average scores were for 'Spirit & Identity', 'Pride & Strength' and 'Balance & Control' (-0.37, -0.29 and -0.27 respectively). 'Spirit & Identity', and 'Pride & Strength' had the largest score range (Level 4–Level 1) of 4.61 and 4.31 respectively, indicating the high overall importance of these two dimensions to wellbeing.

Conclusions: The preference-based scoring system for WM2Adults demonstrates the importance of dimensions that capture connection to others, spirit, identity, pride and strength to the wellbeing of First Nations adults.

12th Health Services Research CONFERENCE

Resilience, innovation and value through research.

DAY THREE

FRIDAY 2 DECEMBER

Plenary Session 3

Patient-Oriented Learning Health Systems: Reflections on the drive to increase value in health care

Professor Stirling Bryan
The University of British Columbia, Canada

This session is concerned with “value” and will begin by considering alternate definitions of the concept in the healthcare context, drawing on the recent scoping review by Landon et al (2021). A broad working definition will be adopted for the talk, to include consideration of costs alongside quality and outcomes.

Learning health systems are increasingly discussed as a mechanism to drive value in health settings. Such systems typically involve learning teams drawing on evidence, data, analysis, and experience to improve core features of care delivery, including quality, safety, efficiency, and equity. Patient-oriented learning systems promote inclusion of people with lived experience as key members of the learning team.

A patient-oriented learning health system case study will be presented. The case study is from British Columbia, Canada, where the goal for the learning team was to drive greater value in the care of people who live their lives with major depression. A micro-simulation Markov clinical pathway model was developed, drawing on data, evidence, and experience (both patient and clinical), and represented “analytic infrastructure” for the learning team. A number of proposed changes to the major depression clinical pathway in British Columbia have been explored by the learning team. Given the strength of the value proposition that emerged from the team’s analytic work, one example pathway change will be highlighted in this talk: the use of pharmacogenomics to guide medication choice. The adoption of this technology is predicted to reduce costs dramatically for the health system and patients, whilst improving care quality and health outcomes.

The talk will conclude with reflections on, and lessons learned from, the international experience of employing patient-oriented learning health system approaches to drive value in health care.

The embedded economist: Lessons learned & future directions for improving value within local health services

A/Prof Penny Reeves PhD
Hunter Medical Research Institute (HMRI)

The need for greater access to health economic evaluation skills by local health services was identified in interviews conducted for a 2019 report titled 'The Local Level Evaluation of Healthcare in Australia'. The consultations revealed demand for better evaluation and monitoring to improve decision making within local health service organisations. These services also indicated that they wanted to build evaluation capability within their own workforces.

The embedded economist (eE) program was established in response. The project, trialled in 5 sites (4 in NSW and 1 in SA), had 3 components:

- An online, modular university course for senior managers and decision makers – the course was made free to staff at the trial sites
- A community of practice for any health staff in the sites interested in applied health economic evaluation
- Access to specialist applied health economic evaluation skills via an embedded economist dedicated to each site for a period of 3 months.

The primary aim was to bring about health service practice change where needed, to ensure our local communities have access to timely, effective and sustainable healthcare. The levers of change were identified to be raising health professionals' awareness of the benefits of economic evaluation, upskilling health professionals in the principles of economic evaluation, encouraging routine collection of economic data for use in evaluations, and finally encouraging senior managers to access and use health economic findings when making decisions about their services to develop and demonstrate high value health programs, services, initiatives and technologies.

Effectively convey why value should be assessed as well as budget impact was challenging and required suitable experience as an applied economist as well as high level communication skills to be successful.

Local health services are beset by many wicked problems, especially in the wake of a global pandemic that has placed resources under unprecedented pressure. Fostering skills in economic evaluation is required now more than ever.

Symposium 9: Development of an epidemiological and Health Services research data platform using linked electronic health record data

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Barriers and Facilitators to Implementation of Patient-Reported Outcome Measures in Public Healthcare

Dr David Snowdon[1,2,3], Mr Scott McGill[4], Ms Christie Altmann[5], Ms Kathryn Brooks[6], Ms Tori Everard[4], Ms Kate Le Fevre[4], A/Prof Nadine Andrew[1,2,3], Dr Laura Jolliffe[7]

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Introduction

Patient-reported outcome measures (PROMs), used to measure health-related quality of life (HRQoL), can drive change in how healthcare is delivered. However, routine collection in healthcare is difficult to achieve. The aims of this mixed-methods study were to 1) assess the implementation of routine PROMS administration across a community rehabilitation program and 2) identify the barriers and facilitators to broader implementation across a geographic region for incorporation into the Healthy Ageing Data Platform.

Methods

The i-PARIHS framework was used to guide the implementation of the EuroQol five dimensions (EQ-5D-5L) at a multisite community rehabilitation program between January 2019 and June 2020. Rates of EQ-5D-5L completion and use of EQ-5D-5L data to drive healthcare delivery were assessed. Facilitators and barriers to implementation were identified using semi-structured interviews with healthcare professionals, management and administration staff. Data were transcribed verbatim and thematically analysed.

Results

From 1,350 clients, 981 (73%) completed the EQ-5D-5L on admission and discharge. Women and those who had elective surgery were more likely to complete EQ-5D-5L on discharge. EQ-5D-5L data were used to: 1) benchmark HRQoL to population norms; 2) compare change in HRQoL across diagnostic groups; 3) identify areas of HRQoL not addressed during rehabilitation; and 4) identify modifiable factors (i.e. intensity of therapy and type of therapy) that may influence change in HRQoL. Twenty-one staff members were interviewed. Facilitators to routine collection included: 1) education on PROMs collection; 2) feedback on implementation outcomes; 3) belief that EQ-5D-5L was an important outcome measure; and 4) leaders to drive PROM collection processes. Barriers included: 1) resource intensive collection processes; and 2) fear that improvements may not be identified.

Key Message

Routine administration of PROMs is achievable in a public healthcare setting using an implementation framework and structured processes. Data collection needs to be efficient and meaningful for sustainability and scale-up.

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Implementing Natural Language Processing within an Electronic Health Record derived data platform to identify clinical entities

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Introduction/Background

Existing data systems rely on structured data to identify clinical groups. However, these have low specificity for some clinical entities (~20% for dementia). Important proportions of medical records consist of unstructured text, including discharge summaries, nursing notes and specialist reports. Automated analysis of these records using Natural Language Processing (NLP) tools offers new possibilities for researchers. We aim to describe the NLP framework developed to allow processing of unstructured text in the National Center for Healthy Ageing (NCHA) data warehouse and provide preliminary results from its application to dementia.

Method

The framework is based upon CogStack, an open-source project developed by Kings College, London. CogStack includes modules for ingestion and conversion of text from multiple sources, annotation using ontologies (e.g. SNOMED-CT) and search features. Validation cohorts consisted of: (1) participants with a clinical dementia diagnosis; and (2) participants confirmed to be dementia free. Terms in medical text that may indicate dementia were catalogued with input from geriatricians and medical coders. The search engine was used to generate classifiers and summary reports to indicate the presence/ absence of dementia.

Results

A test instance of CogStack was deployed on the NCHA hardware and used to successfully extract and decompress text documents. Over 50 dementia related terms and phrases were identified and 207 non-dementia and 300 dementia participants recruited. Initial testing with training data demonstrated successful identification of dementia specific terms including negations. Testing of dementia related terms within the NCHA data warehouse and validation in our cohort is underway.

Key Message

The CogStack NLP framework provides a flexible suite of tools that allows researchers to ask new questions using unstructured text data. These new methods can be scaled to large datasets, such as an entire health service, due to the automation offered by the framework, making previously infeasible analyses possible.

Establishing a core research dataset from electronic health record data for the Healthy Ageing Data Platform

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Introduction

The National Centre for Healthy Ageing (NCHA) data platform is developing a standardised set of curated core data items from Electronic Health Record data for health service and clinical research. We describe the process used to determine the content of this core dataset to meet the needs of a range of end users.

Setting

Researchers from Monash University and clinicians from Peninsula Health from a broad range of areas were invited to take part in a modified Delphi process, a structured communication method to reach a decision by surveying a panel of experts.

Method

Potentially suitable data items were assigned to eleven different datasets. Phase one polled data items in demographic, inpatient and theatre/surgery datasets. Consensus on data items was obtained over multiple rounds of live workshop or online survey. Nineteen data items were considered mandatory (e.g. age, gender) and a further 40 were presented to the end user group for polling. At the first workshop, each data item was presented with information on the use and quality and participants were able to request additional information. Participants rated the items for inclusion using a 6-point Likert scale.

Results

A total of 23 individuals participated in phase one (13 clinicians from 11 areas, 10 researchers from 8 departments). Feedback was provided by 16 participants during workshop one and 13 during workshop two. Items that reached 70% consensus in round one, were included in the dataset. Items that did not meet the 70% consensus were repolled in round two. Consensus was obtained after two rounds of polling, with 32 data items reaching the 70% consensus for inclusion in the dataset.

Implications

Development of a curated core dataset will facilitate timely access for researchers and clinicians to research grade data with the ability to link to a range of other health data.

Maximising the quality of Electronic Health Record data for Research

Ms Tanya Ravipati[1,2], Associate Professor Richard Beare[1,2,3], Professor Velandai Srikanth[1,2,3], Associate Professor Nadine Andrew[1,2,3]

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Background
Digitalisation of Electronic Health Records (EHR) means that more data are available than ever before. However, these data are inconsistently recorded with varying suitability for research. We aim to describe the validation, indexing and warehousing being undertaken by the National Centre for Health Ageing (NCHA) to develop an EHR derived data platform to support health service research.

Method
We conducted a literature review to identify EHR items commonly used in research and audited the Peninsula Health data warehouse to determine item availability. The World Health Organization’s Data Quality Review (DQR) Framework was used to guide the assessment of data quality for registered patients. The DQR dimensions assessed were: (1) completeness, the proportion not containing null or blank values; (2) specificity, calculated by excluding unknown, not specified, not stated, or ‘other’; (3) internal consistency, measured as consistency between similar variables recorded within different datasets; and (4) external consistency, validated against published literature and data collection points.

Results
135 core data elements were identified as potentially suitable. Demographic data (>800,000 registered patients) ranged from 95% (ethnicity) to 100% (postcode) for completeness with a specificity of 65% to 98%. For inpatient data (January 2016-May 2021), completeness ranged between 98% (discharge method) and 100% (admission type) with a specificity of 93% to 99%. For Emergency Department attendances (January 2016-May 2021), completeness ranged between 99% (arrival mode) and 100% (visit type), with a specificity of 93% and 100%. A data dictionary, based on the National Health Data Dictionary (NHDD) was developed to catalogue these and other data attributes.

Key Message
The quality of data varied with low to moderate specificity for some items. We identified opportunities for improvement and highlight the importance of applying structured frameworks to accurately document the scope and quality of EHR data if they are to be used for research.

Symposium 10: Invest in proven Indigenous-led solutions to improve perinatal health & wellbeing

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Call to Action: what you can do to improve Indigenous maternal and infant health and wellbeing

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Introduction
There is an urgent need for adequately funded Indigenous-led solutions to perinatal health inequities for Indigenous families in well-resourced settler-colonial countries.

Setting
Indigenous-specific maternal and infant health services in Australia, Aotearoa New Zealand, United States and Canada

We present our call to action for health services, funders, politicians, policy makers and everyday citizens to improve Indigenous perinatal healthcare experiences and outcomes in high-income countries. We provide key steps to be taken - namely how all peoples can support proven Indigenous-led solutions.

This call to action was compiled by 40+ leading international Indigenous maternal health researchers.

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He Tamariki Kokoti Tau – Tackling Preterm. You need to count to be counted. Valuing women & babies.

Dr Liza Edmonds[1]

[1]Southern District Health Board & Dunedin School of Medicine University of Otago , Dunedin, Aotearoa New Zealand

Preterm birth causes significant mortality and morbidity in indigenous communities of which Aotearoa New Zealand is no exception. Linking data sets from multiple systems allow for a fuller understanding of patterns of mortality and morbidity for Maori women and their babies. Using a Kaupapa paradigm demonstrates the systemic privilege and its advantages for non-indigenous populations. We will discuss the findings from our retrospective preterm cohort study and the challenges this raises for life long health and wellbeing for indigenous women and their babies.

Birthing on Country services in Australia improve health outcomes

Prof Sue Kildea[1], Prof Yvette Roe[1]
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Introduction
Birthing on Country is a metaphor for the best start in life for Aboriginal and Torres Strait Islander babies and their families, an appropriate transition to motherhood and parenting for women and an integrated, holistic and culturally appropriate model of care for all.

Setting
We will outline our translational research work being done across urban, rural and remote settings in Australia to achieve improved outcomes and community-controlled maternity care.

Method
We use participatory action research to partner with First Nations communities and health services to re-design maternity care services to meet community need.

Result
Our urban site has seen a phenomenal reduction in preterm birth, as well as improvements in other outcomes such as increased antenatal attendance and breastfeeding.

Implications
Widespread scale-up is required of Birthing on Country services, including adequate funding to Aboriginal community control health services to deliver evidence-based best practice maternity care.

He Korowai Manaaki, Aotearoa: Wrap around care in pregnancy

Ms Anna Adcock[1], Dr Kendall Stevenson[1], Mrs Francesca Storey[1], Prof Bev Lawton[1], Mr Charles Lambert[1], Mr Matthew Bennet[1], Dr Liza Edmonds[2], Dr Fiona Cram[3]

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Background

Maternal and infant health inequities between Māori (the Indigenous peoples of Aotearoa New Zealand) and New Zealand European women are well documented and cannot be explained solely by socioeconomic status. A research center-iwi (tribal group) partnership aims to address these disparities and improve maternal and infant health outcomes by implementing an augmented maternity care pathway (He Korowai Manaaki) to improve access to services and evidence-informed care.

Objective

The objective of this study is to test whether an augmented maternity care pathway improves Māori infant health outcomes.

Methods

This is a Kaupapa Māori (by, with, and for Māori) cluster randomized clinical trial involving 8 primary care practices allocated to either an intervention arm or control arm. The intervention arm comprises an augmented maternity care pathway (He Korowai Manaaki) offering clinical care through additional paid health care appointments and improved access to social support (eg, housing, transport). The control arm is usual care. The primary outcome is increased timely vaccination for Māori infants, defined as all age-appropriate vaccinations completed by 6 months of age.

Conclusions

The results will inform primary health care policy including whether the provision of augmented maternal care pathways reduces disparities in the structural determinants of health. If effective, He Korowai Manaaki will strengthen the health and well-being of pregnant Māori women and their babies and improve their health outcomes, laying a strong foundation for lifelong health and well-being.

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Changes in systemic cancer therapy in Australia during the COVID-19 pandemic: a population-based study

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Background

Since the emergence of COVID-19 there have been increasing global concerns about delays and/or discontinuations in cancer care. However, it is unclear to what extent systemic cancer therapy was impacted by COVID-19 in countries with relatively low COVID-19 infection rates. We examined changes in systemic cancer therapy in Australia during the COVID-19 pandemic.

Methods

We conducted a national observational study using de-identified records of government-subsidised cancer medicines dispensed to a random 10% sample of Australians between January 2017 to December 2020. We reported monthly dispensing and initiation rates of antineoplastic (chemo-, immuno- and targeted therapy), endocrine and supportive medicines per 100,000 population. We reported monthly discontinuation rates (defined as ≥90 days gap between cancer medicine dispensings) per 100,000 people treated. We used interrupted time series analysis to examine changes during times of increased COVID-19 risk and related public health measures (March, April and July 2020).

Results

Between January 2017 and December 2020, 1,011,255 cancer medicines were dispensed to 51,515 people. Overall, there were no reductions in antineoplastic dispensing or initiation during the COVID-19 pandemic. In March 2020, we observed a temporary increase of 39/100,000 (95% CI: 14 to 65/100,000) in antineoplastic dispensing, driven by immunotherapy and targeted therapy. In April 2020, we observed a temporary decrease in chemotherapy initiation (-2/100,000, 95% CI: -4 to -1/100,000) and temporary increase in discontinuation of all antineoplastic medicines (35/1,000, 95% CI: 20 to 51/1,000), but these changes were not sustained.

Conclusions

The effective control of COVID-19 in Australia appears to have mitigated the initial impact of COVID-19 on systemic cancer therapy. We observed only small and temporary changes in the use of some cancer medicines early in the pandemic.

Gender-differences in healthcare services utilisation after health shock among middle-aged and older Australians

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Introduction

Past studies have shown that women report greater morbidity and use healthcare services more than men. However, individuals navigate the health system differently after experiencing a health shock. Hence, we examined whether there is gender-specific heterogeneity in healthcare utilisation subsequent to a health shock among Australia's middle-aged and older adults.

Population

We used three waves (waves 9, 13 and 17) of the Household, Income and Labour Dynamics in Australia (HILDA) survey (estimation sample spans nine years). The retrospective longitudinal research design included individuals aged 45 years and over (45-59 years=middle-aged; 60 and above=older) from an unbalanced panel data, consisting of 8,939 person-year observations from 4,741 unique individuals.

Methods

We used the longitudinal random-effects logistic regression for the statistical analysis.

Results

The results indicated that women had significantly lower odds of hospital [OR: 0.83; 95% CI; 0.75, 0.93] and specialist doctor [OR: 0.91; 95% CI; 0.83, 0.98] visits following a health shock, and higher odds of allied health professional [OR: 3.01; 95% CI; 2.44, 3.71] and physiotherapist [OR: 1.52; 95% CI; 1.34, 1.72] visits than men after controlling for possible confounding variables. Men also had a higher odds of more hospital admissions and number of nights stay at hospitals than women. However, women showed higher odds of utilising mental health services [OR: 1.49; 95% CI: 1.18,1.89] compared to men after experiencing health shock. Finally, obesity is a significant factor in determining the number of healthcare utilisation (all types) after health shock for women, but not for men.

Implications

Understanding the gender-difference in healthcare utilisation will provide additional information for developing appropriate health policies and care programs, communication strategies, and care practices that can improve the overall health outcomes of patients experiencing health shocks.

Health Services Utilisation by people with Long COVID: the Aotearoa experience

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Introduction
As the COVID-19 pandemic evolves, ongoing consequences of SARS-CoV-2 infection continues to become more apparent. The magnitude of the impact on health services remains unclear.

Population
The Ngā Kawekawe o Mate Korona | Impacts of COVID-19 in Aotearoa study is a nationwide study of people aged 16+ in Aotearoa New Zealand who had COVID-19 before December 2021. Invitation letters were sent to 8,735 eligible people (including 2,656 Māori, indigenous people of Aotearoa New Zealand) in February 2022, followed by two SMS reminders, in February and May 2022 respectively.

Method
Participation involved completing one or more online surveys. Long COVID was defined as reported symptoms three or more months after initial COVID-19 illness. We used New Zealand Health Survey questions to establish health service usage and barriers.

Results or findings
Initial results are based on 486 people (69 Māori, 417 non-Māori), including 153 people (24 Māori, 129 non-Māori) with Long COVID. Final analyses based on 1,227 respondents will be presented. Overall, 12% of respondents (10% Māori, 12% non-Māori) reported seeing their GP four or more times because of COVID-19. Among those with Long COVID, 8% of Māori and 25% of non-Māori reported seeing their GP four or more times, and 8% of both Māori and non-Māori reported seeing a nurse four or more times because of COVID-19. Māori with Long COVID were much more likely to face a barrier to seeing a GP than non-Māori, although this could be due to chance (38% vs 29%, P=0.43).
Implications

People with Long COVID are high users of primary health care, although Māori have much lower GP usage, suggesting that existing inequities in access to primary care also exist for Māori with Long COVID. Primary care services need to be sufficiently funded and oriented to offer care to people with Long COVID.

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Management of patients with low back pain admitted to hospital: an observational study of usual care

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Introduction

There is a dearth of evidence on how admitted patients with low back pain (LBP) are managed in Australia. This study describes current patterns in hospital care of LBP and predictors for longer hospital stay.

Method

Eligible records included adult inpatient admissions initially diagnosed as non-serious LBP (+/- radiculopathy) in the emergency departments (EDs) of Sydney Local Health District (SLHD). Data from the SLHD STARS Back Pain Application was supplemented by manual review of eMR for a sub-sample of admissions, from January 2016 to September 2020. Demographic variables, hospital costs, length of stay, diagnostic imaging and analgesic prescription are described.

Results

We included 1,982 admissions from ED with a provisional non-serious back pain diagnosis. 60% of admitted patients were female, and 36% were aged ≤65. Interpreters were required by 15% of admissions, and 36% stated a preferred language other than English.

Back pain admissions had a median length of stay of 10[13] days, with a median total admission cost of $14,000. Blood tests were performed in 84% of admissions. Advanced imaging (lumbar MRI or CT) was ordered in 38% of admissions. Pharmacotherapy included opioid analgesics (85%), antiepileptics (51%), muscle relaxants (27%), corticosteroids (34%), COX-2 selective NSAIDs (29%), non-selective NSAIDs (51%) and benzodiazepines (43%). Surgical procedures were performed in 6.8% of admissions. Hospital acquired complications included adverse effects of opiates (6%), falls (3%) and nosocomial infections (1%).

Discussion

LBP admissions are common and costly, with high utilisation of opioid analgesia and complex medicines. In order to design and implement strategies to improve care, it is essential to understand the patient population, and what is usual hospital care for back pain. This data will be used to inform alternatives to hospital admission for low back pain, as well as improve current inpatient management.

Health outcomes (quality of life and healthcare utilisation) from the Victorian Healthy Homes Program

Dr Katie Page[1], Dr Lutfun Hossain[1], Dr Dan Liu[1], Professor Kees van Gool[1], Professor Rosalie Viney[1]
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Background
International studies show that home upgrades are associated with benefits in health such as reduced hospital admissions, decrease wheezing, and improved lung function in children with asthma. Data from the United Kingdom that shows that there is seasonal variation, in that houses that were more energy efficient had less mortality than houses with poor energy efficiency. The evaluation of the Victorian Healthy Homes Program assesses whether home upgrades result in improvements in health and quality of life of householders, as well as reductions in individuals' health care utilisation and energy consumption.

Population
1313 elderly (M=76 years) low-income householders where at least one person has need for home care support services or has an existing health condition.

Method
Three established quality of life instruments, the short form-36 (SF-36), the EQ-5D-5L, and the Adult Social Care Outcomes Tool (ASCOT) measured changes in self-reported quality of life and social care before and after winter. Health care utilisation and costs were obtained from the Medicare Benefits Scheme (MBS), Pharmaceutical Benefits Scheme (PBS), and the Victorian hospital admissions, emergency department presentations and death data.

Results
The intervention group had a significant improvement in the MCS score after winter of 2.3 norm-based scores. There was also a significant effect on after winter ASCOT scores which improved by 0.016. There were no group differences on the EQ-5D-5L utility scores. MBS services were higher in the control group which had an average of 15.1 services over winter while the intervention group had 12.82. Total healthcare costs were lower for the intervention group ($3394) than the control ($4172) in the winter period.

Implications
The VHHP provides evidence that home upgrades provide significant benefits in quality of life and healthcare utilisation to vulnerable elderly populations.

Use of health services and medicines for chronic non-cancer pain among people using opioids: a longitudinal cohort study

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Background

Although multidisciplinary management of chronic non-cancer pain (CNCP) is recommended, long-term health service and medicine utilization among people using opioids for CNCP is not well known. We describe 12-month and 30-day use of health services and medicines for pain over four years, and determine associations between 30-day use and individual sociodemographic and pain characteristics.

Population

The Pain and Opioids IN Treatment (POINT) study recruited 1514 Australian adults receiving opioids for CNCP for more than six weeks from community pharmacies.

Methods

Services (physical, mental health, specialised) and medicines (opioid and non-opioid analgesics, psychotropic medicines) used in the previous 12-months and 30-days were collected annually over four years (2015-2018). Associations were explored between 30-day treatment use and sociodemographic characteristics and pain measures, using mixed-effects logistic regression models. Multiple imputation using chained equations was conducted to reduce bias from missing data.

Results

Overall, 1334 participants completed at least one annual follow-up (median age 57 years, interquartile range (IQR) 48-67, 56% female). Median pain severity (5.0, interquartile range (IQR) 3.8-6.3) and pain interference scores (5.7, IQR 3.9-7.3) indicated moderate pain throughout the study period. Most participants reported use of services (12-month: 91.8%; 30-day: 66.1%) and non-opioid medicines (12-month: 97.6%; 30-day: 96.8%); medicine use was more consistent over the four years. Some treatment use was not consistent with guidelines: ongoing use of non-steroidal anti-inflammatory drugs and sedative-hypnotics was common, while fewer people engaged with specialist pain management programs (12-month: 22.3%). Private health insurance was associated with using physical (adjustedOR 1.59, 99.5% CI 1.15-2.22) and specialised services (adjustedOR 1.47, 99.5%CI 1.14-1.91).

Implications

Many people taking opioids long-term for CNCP also use other treatments. Access to health services was associated with having private health insurance, suggesting specialised pain management remains inaccessible for many patients and highlighting a need to improve models of treatment provision in Australia.

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Perinatal women's perceived barriers and facilitators to community pharmacist-led perinatal depression screening: A qualitative study

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Background
Approximately 20% of Australian women are affected by perinatal depression (PND). Despite increasing government funding for perinatal mental health, one in five women still do not receive mental health checks perinatally. Pharmacists are among the most accessible and trusted professionals who are increasingly recognised for their roles in mental health care and supported through education, such as Mental Health First Aid (MHFA) training. Pharmacist-led PND screening services may improve accessibility of perinatal mental healthcare and increase mental health screening rates thereby potentially improving maternal and infant health outcomes.

The study aims to investigate perinatal women's perceived barriers and facilitators to pharmacist-led PND screening in Australian community pharmacy.

Method
Australian perinatal women were recruited to participate in semi-structured interviews. Interviews were conducted until data saturation was reached. Data underwent inductive, thematic analysis based on the Consolidated Framework for Implementation Research. Data was initially coded for thematic analysis by one researcher and consolidated through regular discussion with the research team, including pharmacists, perinatal mental health researchers and MHFA instructors.

Results
Women (n=41) identified perceived barriers to community pharmacist-led PND screening to include lack of privacy, mental health training and public awareness of pharmacists' roles in mental healthcare. Perceived facilitators to pharmacist-led PND screening included pre-existing, trusting relationships with pharmacists as well as timeliness and convenience of the proposed service.

Implication
The exploration of perinatal women's perceived barriers and facilitators to community pharmacist-led PND screening will facilitate the development of PND screening services that are acceptable, relevant and appropriate to key stakeholder, namely perinatal women. The findings from this study will inform the development and implementation of perinatal mental healthcare services in community pharmacy.

More than medication: Health and wellbeing goal planning between mental health consumers and community pharmacists.

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Introduction/background
Goal planning is used within mental health care to direct assessment and interventions but there is little known about the types of goals being developed by service users working with health professionals. The aim of this study was to develop a classification system for the goals documented by pharmacists working with people living with anxiety and/or depression (service users).

Population/setting
This study utilised goal data from the Mental Health in Community Pharmacy (MHCP) research project in which pharmacists (n=163) were trained to provide individualised and flexible support to service users. The MHCP aimed to optimise health outcomes for service users through dialogue, goal planning and partnerships between pharmacy staff, service users and their support networks.

Method
A systematic process for goal categorisation was undertaken. Goal data were extracted and independently categorised and coded by two researchers. These codes were reviewed a number of times until an agreed taxonomy was developed. A third researcher independently coded a randomised sample of goals to determine inter-rater consistency.

Results/findings
A taxonomy was developed comprising of domains, categories and descriptors. Five domains were identified including: ‘Improve health’, ‘Quality of life’, ‘Manage physical health’, ‘Mange mental health, and ‘Use of medicines’. Whilst many goal domains aligned with commonly measured clinical outcomes used by pharmacists (e.g. weight loss, medication adherence), some goals differed from traditional pharmacy-based clinical and health-related outcomes (e.g. relationships, leisure activities, employment).

Implications/key message
Treatment goals in a number of the taxonomy domains are rarely captured by clinical measurement tools and the taxonomy will inform outcome measurements that are meaningful for service users experiencing anxiety and/or depression. This study indicated that pharmacists have a role to play in supporting service users to work towards a broad range of health and wellbeing outcomes.

Effectiveness of pharmacist-led interventions on health outcomes for people living with severe and persistent mental illness: a systematic review

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Introduction or background

People living with severe and persistent mental illness (SPMI) experience poorer physical health, often due to medication side effects and preventable lifestyle factors and exacerbated by barriers to accessing healthcare services. Pharmacists are well-positioned to improve the physical and mental health of this population; however, little is known about pharmacists' current roles in the provision of care to people living with SPMI and the impact of pharmacist-led interventions on associated health outcomes. This systematic review aimed to identify, describe and assess the effectiveness of pharmacist-led interventions for supporting people living with SPMI.

Population or setting

People living with SPMI (e.g., schizophrenia, bipolar disorder) in any healthcare setting, globally.

Method

MEDLINE, Embase, PsycINFO, CINAHL, Web of Science, Scopus, Cochrane Library, International Pharmaceutical Abstracts and ProQuest Dissertations and Theses were systematically searched for relevant publications. Full-texts published between January 1, 1990 – April 1, 2020 evaluating pharmacist-led interventions for people living with SPMI were included. A risk of bias assessment was conducted using Cochrane Risk of Bias tools (RoB 2 and ROBINS-I), as relevant to study design.

Results or findings

A total of 37 studies were included. More than half (n=22) of pharmacist-led interventions were multifaceted, comprising education and/or consumer advice, medication reviews, and provision of clinical assessments, monitoring and recommendations to healthcare professionals. Multifaceted interventions led to improvements in clinical outcomes (e.g., symptom severity); single interventions showed improvements in consumer-reported outcomes (e.g., medication adherence). There was moderate-to-high risk of bias across all studies and considerable heterogeneity in the study design, interventions described, and outcomes reported.

Implications or key message

Pharmacist-led interventions improved consumer-reported and clinical outcomes for people living with SPMI. Future research should attempt to better understand which specific intervention components have the greatest impact and evaluate the long-term sustainability of such interventions.

Prescribing as a social process: hospital pharmacists' role in providing medication advice.

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Introduction

Doctors are often perceived to be the sole decision makers in the prescribing process. At the same time, there is a push towards standardised protocols and technologies to guide safer, evidence-based prescribing. However, a small number of studies have uncovered significant social influences on doctors' prescribing decisions. Hospital pharmacists are the medication experts within interprofessional teams yet little is known about how they influence prescribing decisions. This study explores pharmacists' experiences of providing medication advice and the impact that service adaptations in response to COVID-19 had on this practice.

Population

Clinical pharmacists at a tertiary referral hospital in Sydney

Method

Pharmacists participated in semi-structured interviews on their role in the prescribing process, experience of providing medication advice, and the impact of COVID-19 adaptations. Interviews were transcribed verbatim and non-identifiable transcripts analysed thematically by two researchers.

Results

Hospital pharmacists reported that they provided medications advice to doctors, nurses, and patients, and to clinicians in the community (e.g. GPs, residential aged care). Most advice was initiated by pharmacists following an initial prescription or medication chart review. Despite being unsolicited, they perceived their advice was accepted and appreciated by members of the clinical team. Factors reported to facilitate both the provision and acceptance of pharmacists' advice were clinical experience, face-to-face interactions and 'visibility' on the ward. Most pharmacists were less comfortable providing advice to senior doctors about medications outside their area of expertise. Service adaptations in response to COVID-19 hampered the social process of advice-giving by isolating pharmacists from patients and the interprofessional team.

Key Message

This paper contributes to the growing body of evidence on prescribing as an interprofessional, social process. While there is a drive for standardised and telehealth solutions, our study highlights that clinicians value face-to-face, interpersonal interactions.

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Feeling Safe Influences Communication Pathways for Pharmaceutical Information.

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Introduction

Little published information exists on how pharmaceutical information is communicated by health professionals, to patients, and how this effects medication taking. This project explores ‘pharmaceutical pathways’ that connect prescribers, pharmacists, and patients.

Population

The research site was a community pharmacy with close links to a medical centre in a low socio-demographic urban area. Our population of interest included Māori, Pacific people and other local ethnic groups.

Methods

We used ethnographic observations and interviews with community pharmacy staff and their patients. [Research ethics 6th July 2020, 28324].

Findings

We completed 24 six-hour periods of observation, and 33 interviews with patients, who shared that relationship was the most important aspect of feeling safe in their local pharmacy. Generations of the same family frequented this pharmacy because they felt known, understood and cared for and received individualised information.

MF: “Well, we live just down the road. One of the reasons. The other reason; we’ve got to trust [pharmacist] so much, and we can moan to him, and he handles it. He [husband] gets some advice from him. I get some advice from him. Good advice”

MNZE: “For me, it makes it easier to have that relationship with the pharmacist; they know who I am, and they know that the doctor knows who they are. To me; there’s got to be that relationship going. So, even though I live down the road, and my doctor’s moved down the road, I’ll come up here just to keep that relationship going.”

PM: “Well, definitely the familiarity with [pharmacist]…I know a few of the others, and I just know – real comfortable with coming here. I know who I’m going to see and they know me.”

Key Messages

Engaging patients with medication taking, requires an environment in which people feel safe, known and respected.

Exploring the experiences of informal caregivers in managing medicines for people receiving cancer treatment.

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Introduction

Informal caregivers are family members, close relatives or friends who support the care and overall wellbeing of loved ones in need. In the context of cancer treatment, informal carers are often the most poorly supported member of a cancer patient's care team. Many caregivers often assume the role instantaneously and may not necessarily have the capacity or capability to manage these responsibilities. Medicine management responsibilities have been linked to negative impacts on caregivers' mental and physical health, but the support needs of carers to manage such responsibilities are not well understood. This study aimed to understand informal caregivers experiences and support needs in their medicine management roles for people receiving cancer treatment.

Method

A total of 20 caregivers participated across three group interviews and 10 individual semi-structured interviews. The interview guide was informed by the research team based on their clinical and research experience working with informal caregivers in cancer services. The interviews were transcribed verbatim and analysed with a thematic content analysis coding framework developed by consensus between two researchers.

Findings

Caregivers described juggling a variety of medicines management roles, ranging from simple administrative tasks to more complex ones such advocating for the patient's medicine needs. Caregivers highlighted several aspects of medication management that they found challenging, including managing complex dosing regimens, frequent changes to medicine regimens and difficulty in administering certain medicine dosage forms. Caregivers also reported a mix of positive and negative emotions towards their medicine management roles, from being completely overwhelmed and underprepared, to feeling that they are key member of their loved one's care team.

Implications

The study highlights the need to support informal caregivers in their medicine management roles and the opportunity for community pharmacy to better support the aspects which caregivers find technically and emotionally challenging.

Exploring the Barriers and Enablers to Pharmacists-led Services in People with Disability; Perspectives of Pharmacists and Disability Caregivers

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Introduction

People with disability (PWD) face significant medication safety issues. While a role for pharmacists in supporting medicine use is advocated for in contemporary guidelines, it is unclear to what extent pharmacists currently provide medicine-related services to PWD and their caregivers, and what barriers and enablers exist for pharmacist undertaking these clinical activities.

Aims and objectives

The objective of this study was to explore the current role for pharmacists in supporting quality use of medicines for people living with disability, and the barriers and enablers to pharmacists meeting their scope of practice from the perspective of pharmacists and disability carers within Australia.

Study Design

A qualitative study design using semi-structured interviews of pharmacists and disability caregivers was undertaken across six different states or territories in Australia.

Results

Ten interviews were conducted with registered pharmacists, and ten with disability workers. Potential pharmacist activities identified included education and training, medication stewardship through medication reviews, supporting transitions of care, and providing medicine-related information on demand. Barriers to providing services encompassed difficulties faced by the individual pharmacist including time constraints, interpersonal barriers between the pharmacist and other stakeholders such as awareness of HMRs, and systemic barriers, for example government funding. Changes to the current service model of medication reviews such as pharmacists initiating reviews, avenues to expand pharmacist activities including collaboration with NDIS provides, and the practice change necessary to support pharmacists currently or potentially working in this space were seen as enablers.

Discussion and Conclusion

This study explored the perceived role of the pharmacist in supporting medication management for PWD and their carers, and the barriers and enablers to optimising this role. Further research is needed to understand the effectiveness of current medication-related interventions for PWD, and feasibility of pharmacist-led activities in the disability sector.

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Do patients and nurses value active patient participation in bedside nursing handover? A mixed-methods study at an Australian Health Service

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Background
Patient participation in bedside nursing handover is important for patient-centred care, improves healthcare experience, contributes to shared decision-making, and increases patient safety. This mixed-methods study explored the level of active patient participation in nursing handover.

Population/Setting
Patients and nurses at six hospitals of one health service in Melbourne, Australia.

Methods
Structured observation of 117 nursing handovers between September and December 2019 and semi-structured interviews with 33 patients and 20 nurses. Descriptive statistics described the level of active participation from observation data, and with thematic analysis of interviews, data were triangulated.

Findings
Almost half the patients were female (47%) and median patient age was 77 years. Three-quarters, 76.9% (n=90), of nursing handovers were conducted in the patient's presence. Patients actively participated in 25.6% (n=30/117) of handovers; were passive participants in 35.9% (n=42/117) and were not involved in 38.5% of handovers (n=45/117). Median handover duration was significantly (p=0.031) longer when the patient was actively involved (3.0 [IQR=2-4.25] vs 2.0 [IQR=2-3] minutes).

Just over half the patients interviewed (n=17/33) expressed that handover was 'not for me', as they trusted the nurses' care and communication. Patients described nurses working in a team and being helpful and caring during the shift as influencing their participation in handover. Nurses expressed that handover was an opportunity for patients to be informed, but acknowledged the need to build rapport and be selective about the information shared. Nurse behaviours during handover that were directed towards engaging the patient led to greater active participation.

Implications
Only one-quarter of patients actively participated in nursing handover and this was associated with slightly longer duration. Factors including patient preferences, perceptions and nurse behaviours influenced patient participation. Patients were able to actively participate in nursing handover when they understood the purpose and timing of handover and felt an affinity with nurses.

Medical practitioners’ views and experiences of being involved in Voluntary Assisted Dying in Victoria, Australia: A qualitative study among participating doctors

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Background
On 19 June 2019, Voluntary Assisted Dying (VAD) was legalised in the Australian state of Victoria, joining a small but growing cohort of jurisdictions internationally where VAD is permitted. However, few studies have examined perspectives of doctors who have participated in VAD since becoming legal in the state. To address this gap in the literature, this study aimed to describe the beliefs, experiences and perspectives of doctors who had provided VAD during the first 12 months of its operation in Victoria.

Population
General practitioners (n=12) and medical specialists (n=20) with a range of experiences in either the coordinating or consulting role for a patient who had requested VAD across Victoria.

Method
In-depth, semi-structured qualitative interviews were conducted and reflexive thematic analysis was used to analyse the data.

Results
Five major themes were identified: a nascent approach to care (minimizing uncertainty and burden at end of life, challenging culture and belief in medicine, the need for a regulatory framework, revising the law in future), practising within clinical and legal uncertainty (estimating prognosis, establishing an authentic desire for VAD, connecting remotely with patients), confronting practices (racing against deteriorating health, fearing complications with new practices, reassuring distressed patients and family, managing existential concerns), personal sacrifices (overcoming bureaucratic requirements, shouldering financial costs, lacking recognition, strategic navigation of a complex system) and coping amid new challenges (accessing psychological care, setting limits, intrinsically satisfying, identifying collaboration and support).

Implications
The legalization of VAD in Victoria involved various competing tensions of identity for doctors who had provided VAD, and for the field of medicine more broadly. A major tension was not just how doctors’ perceptions impacted their own wellbeing and satisfaction, but also how these challenged their continued involvement in VAD and, therefore, the system’s overall ability to function.

Factors influencing patient participation in healthcare interactions: A patient perspective

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Introduction/background

Good patient-provider communication has been shown to improve patient experience, adherence to treatment and health outcomes. While there is good evidence for the benefits of effective two-way communication, there is little evidence about why patients' healthcare interactions are often limited to answering direct questions from their health professionals. The aim of this qualitative study was to understand patient perspectives of the factors that influence their ability and motivation to actively participate in healthcare interactions.

Population/setting

Thirty-nine adult patients from two metropolitan Melbourne health services and one regional Victorian health service.

Method

The total number of participants was 39 (including 25 individual semi structured interviews and 14 participants across three focus groups). To prompt discussion about barriers and enablers, participants were presented with vignettes that described a communication scenario between patients and healthcare providers.

Results/findings

Primary themes influencing patient participation were identified as: individual, interpersonal and system factors. From these, further sub themes were identified: personal characteristics, patient language and culture, patient preparation prior to the interaction, emotion or stress arising from the interaction, patient-clinician relationship, having a support person present, perception of patient-provider power imbalance and time constraints. Participants suggested that a key responsibility of clinicians and healthcare organisations is to create an environment where patients can ask questions. Acknowledging that this may not happen, participants would be willing to use educational interventions that empower them to actively participate in healthcare interactions.

Implications/key message

Patient participation in healthcare interactions is influenced by individual, interpersonal and system factors. Interventions that educate and empower patients to be active participants in interactions are warranted to improve patient-provider communication and potentially improve patient experience, adherence to treatment, and health outcomes.

The health professionals experience of implementing and delivering a "Community Care" program? A reflexive thematic analysis.

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Background

The multidisciplinary Community Care program is an amalgamated transitional care coordination service that seeks to foster health independence in population groups deemed to be at risk of frequent health care utilisation. The aim of this study was to explore health professionals' experiences of delivering a multidisciplinary Community Care program.

Methods

A phenomenological approach was used. Twelve (12) health professionals from multiple disciplines working in the Community Care program were interviewed to explore their experiences of delivering the program. Reflexive thematic analysis was used to identify themes from the transcripts, including its perceived strengths and challenges.

Results

Four themes were identified as follows; (1) "Unravelling the string," (2) "Filling the gaps," (3) "Out of sight out of mind," and (4) "Is there something in a name". The themes describe that the participants involved in this study felt their role in providing care was challenging but felt it made a positive difference to the patients lived experience. Participants also felt that by unravelling the patients' health problems in the context of their surroundings, they were also identifying the gaps the patient falls through as they journey through the healthcare system. Lastly it was found that a lack of promotion and knowledge of the role of the program was a barrier to seamless integration within the wider health service.

Implications

When delivering care to vulnerable and at-risk patients, health needs may not always be obvious. Consideration of the patient at the centre of care often leads to identification of many gaps in care but putting the patient at the centre of care can be difficult to achieve as it does challenge traditional models of care. When integrating transitional care programs into the wider health service, promotion and criteria for patient enrolment may assist in achieving seamless integration

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Tell Gippsland PHN about healthcare in your community

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Introduction

The Tell Gippsland PHN about healthcare in your community project was designed to improve understanding of how healthcare in the Gippsland region meets community needs, in particular people's experiences of care coordination and use of digital health.

Population/setting

Gippsland, Victoria community. Findings informed the Gippsland PHN 2021 Health Needs Assessment.

Method

A quantitative survey and follow up one-on-one interviews. Quantitative data were analysed using Qualtrics and Microsoft Excel, while qualitative data were coded and analysed in NVivo. Ethics approval was provided by Monash University Human Research Ethics Committee.

Results

The survey was completed by 1,383 respondents and 21 interviews were conducted via phone call or Zoom. The survey results indicated that 77% of respondents had a usual doctor, while 12% did not have a usual doctor or other healthcare provider. Key themes related to care coordination included importance of open communication between patient and clinicians, support for patients to find appropriate care in a timely manner, including to meet non-clinical needs. Barriers to using technology for health included a preference for face-to-face appointments, network/connectivity issues and lack of digital literacy. The top theme identified as important to improve people's health was timely access to services, with sub-themes described as continuity of care, availability of services locally and accessibility of services. Improving patient experiences was another top theme, outlining people's expectations of the care they received from health professionals and acknowledged the patient's role in their health care journey.

Implications/key message

The study findings highlight the need for:

- Professional development to incorporate communication, health literacy and patient-centred practices.
- Improved connection of primary care provider skills and training to local population needs.
- Improved digital literacy among providers and community through promotion and facilitation.
- Increased education for providers and users on how digital health can streamline services.

Hospital staff experiences of co-worker behaviours: a qualitative analysis of submissions to an online messaging system.

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Background
Workplace behaviours of healthcare staff impact patient safety, staff wellbeing and organisational outcomes. A major component of a new whole-of-hospital professional accountability and culture change program is a secure online messaging system that allows staff to make submissions regarding experiences where behaviours of their co-workers either promote or undermine patient or staff safety. Submissions related to unprofessional behaviour (Reflection) are reviewed by a team of trained staff and managed in parallel with submissions recognising positive behaviours (Recognition). In this study, a qualitative analysis of the online submissions was conducted, and a framework developed for categorising co-worker behaviours.

Method
Submissions made between 2017-2020 at five hospitals were deidentified and cleaned; qualitative content analysis was conducted separately for online submissions for Recognition and Reflection. Behaviours reported in Reflection submissions were coded according to the 26 unprofessional behaviours included in the Longitudinal Investigation Of Negative behaviour (LION) survey. Positive behaviours described in Recognition submissions were categorised according to seven themes.

Results
A total of 2476 online submissions (1290 Reflection and 1186 Recognition) were analysed. The three most frequently described unprofessional behaviours included in Reflection submissions were: being spoken to rudely; being humiliated or ridiculed; and having opinions ignored. The most frequently described positive co-worker behaviours were: non-technical skills; positive values-driven behaviour; and behaviours that enhance patient care.

Implications
Hospital staff perceive, experience, and respond to co-worker behaviours in diverse ways. This framework for analysing staff descriptions of co-worker unprofessional and positive behaviours is a useful tool for recognising and promoting professional accountability in healthcare.

Experiences of patients with diabetes attending a publicly funded eye care pathway in Western Sydney: A qualitative study

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Introduction

Diabetic retinopathy (DR) complications can be prevented with regular screening and timely access to an ophthalmologist for treatment. However, in Australia there are gaps in adherence to DR services which include patient related barriers (costs, fear, location, health literacy) or health system barriers (long waits, workforce availability). This study aims to identify the enablers and barriers for accessing a continuum of public DR eye care services.

Population/Setting

Patients with diabetes attending public eye care services in a low socio-economic urban area of Australia (western Sydney).

Method

A qualitative study using semi-structured interviews among patients with diabetes aged 35 years and older attending public ophthalmology services for DR management (ranging from screening to treatments). Interviews were recorded, transcribed and coded to identify themes and subthemes. The COM-B framework was used to interpret the complex behavioural mechanisms, including capability, opportunity and motivation factors, to explain adherence to DR eye care.

Results

Three main themes relating to patient experiences of DR care, and an additional seven sub-themes were derived. Patients were often passive actors in their DR eye care. Barriers and facilitators related to the health system (availability of services and recall-reminder systems) and patient experiences (choices, knowledge, and fear). Patients trusted clinicians and were determined to maintain their vision and quality of life.

Implications or key message

Findings of this study can guide patient-centred initiatives to target and improve access to DR care. Strategies should focus on improving communication between eye care providers, and communication with patients to empower them to become more active players in health care decisions.

Session 7F: Value based healthcare

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Implementing large-system value-based healthcare programs: a realist study for seven natural experiments

Dr Mitchell Sarkies[1], Dr Emilie Francis-Auton[1], Dr Janet Long[1], Dr Natalie Roberts[1], Prof Johanna Westbrook[1], Prof Jean-Frédéric Levesque[2], Dr Diane Watson[3], Dr Chiara Pomare[4], Dr Andrew Partington[1], Prof Jeffrey Braithwaite[1]
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Background

Implementing and scaling the benefits from value-based healthcare delivery models is challenging and requires consideration of complexity and context. Realist studies enable researchers to explore factors beyond “what works” towards more nuanced understanding of “what tends to work for whom under which circumstances”. This presentation reports on a realist study of the implementation approach for seven large-system, value-based healthcare initiatives in New South Wales, Australia, to elucidate how different implementation strategies and processes stimulate the uptake, adoption, fidelity and adherence of initiatives to achieve sustainable impacts across a variety of contexts.

Methods

This exploratory, sequential, mixed methods realist study followed three stages. In Stage 1 we formulated initial program theories from review of existing literature, analysis of program documents, and qualitative interviews with program designers, implementation support staff, and evaluators. During Stage 2, these program theories were tested and refined through qualitative interviews with local hospital network staff running initiatives, and analyses of quantitative data from the program evaluation, hospital administrative systems and an implementation outcome survey. Stage 3 proposes an implementation model for large-system value-based healthcare initiatives.

Results

After performing a literature review, more than 50 interviews were conducted alongside review of 97 program documents and analysis of program evaluation and survey responses. Eight program theories were identified, positioning the primary change mechanisms that drove implementation outcomes within different contextual circumstances: 1) a case for change; 2) resource provision; 3) data monitoring and evaluation; 4) tight and loose coupling; 5) leadership; 6) collaboration; 7) capability development; and 8) audit and feedback.

Implications

Our novel methodological approach allowed for complex exploration of how different implementation strategies and processes achieved a variety of outcomes for different populations, circumstances, and timelines. The results of this study are providing the empirical basis for an implementation model for large-system value-based healthcare initiatives.

Stopping low value care – a grounded theory of staff experiences of disinvestment.

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Stopping low value care – a grounded theory of staff experiences of disinvestment.

Background
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. Disinvestment from usual care is challenging and healthcare staff may be a barrier. Weekend allied health services are challenging to manage, high cost and have poor evidence on acute medical and surgical wards and were identified as an area of potential disinvestment.

Method
We undertook a longitudinal qualitative study examines staff experience of disinvestment from a service they are accustomed to providing to their patients. It took place alongside a disinvestment trial that measured the impact of the removal of weekend allied health services from acute wards at two hospitals. Data were gathered from repeated interviews and focus groups with 450 health care staff.

Results
We developed a grounded theory, which explains changes in staff perceptions over time and the key modifying factors. Staff appeared to experience disinvestment as loss; a key difference to other operational changes. Early staff experiences of disinvestment were primarily negative but evolved with time and change-management strategies such as the provision of data, clear and persistent communication approaches, and forums where the big picture context of the disinvestment was robustly discussed. These allowed the disinvestment trial to be successfully implemented at two health services, with high compliance with the research protocol.

Implications
Disinvestment is usual care is controversial but is feasible with clear change and communications strategies are used.

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Optimising the utilisation of allied health assistants in the Victorian health, aged care and disability sectors

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The role of the Allied health assistant is not new to the health care sector. Structured governance and training for the allied health assistant workforce has been discussed and reported on for over a decade with multiple resources available. However, the full potential of the role is yet to be realised in meeting service demands in the health, aged care and disability sectors.

Transformative change in allied health service delivery is required in order to address growing demand and ongoing workforce shortages. Including Allied health assistants as part of a tiered workforce enables Allied Health services to reach a greater number of consumers with increased frequency to deliver positive healthcare outcomes.

Monash Health in partnership with the Victorian Department of Health have developed the Victorian Allied Health Assistant Workforce Recommendations and resources. An extensive scoping, consultation and collaboration effort with over 1200 stakeholders was conducted to understand the barriers to and enablers of optimal utilisation of Allied health assistants (Huglin et al, 2021) in the health, aged care and disability sectors. These findings were used to develop eighteen recommendations, enhanced by case examples and implementation resources, to support optimal utilisation of Allied health assistants. (HREC: RES-20-0000-356L, ERM: 64899). These recommendations and associated resources span the health, aged care and disability sectors, building upon several projects conducted in the past decade to develop the assistant workforce.

The recommendations are intended to provide a framework for workplaces of differing geographical location, size and funding models. The implementation resources allow a workplace to both evaluate and progress their utilisation and engagement of allied health assistants according to their unique needs.

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Excess hospital costs incurred by individuals with child maltreatment history: A birth-cohort study

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Introduction
Child maltreatment is a serious public health issue across the globe, with documented impacts on health, but the impact on hospital costs, at the population level, is unknown.

Population
We aimed to estimate the additional public hospital costs for emergency department visits and admitted patient hospitalizations, for persons with reported child protection concerns, from birth to 31 years and modelled to age 65.

Method
Using linked hospital data from 2003 to 2017 for a population birth-cohort of all individuals born in South Australia from 1986 to 2017, we estimated costs of public hospital care. Mean cost and cost differences in 2018 Australian dollars (AU$) were calculated for persons with child protection contact vs none, per person and at the population level.

Results
Persons with child protection contact had higher mean annual hospital costs than those with no contact, with cost differential increasing by age. Differential cost per person was AU$338 (95% CI, AU$204–473) from birth to 13 years; increasing to AU$2,242 (AU$2,074-2,411) at ages 24 to 31 years, equating to an additional AU$123.9 (US$100.5) million for public hospital services from birth to 31 years, an 18% cost penalty, and a 33% cost penalty for ages 13 to 31. Modelled to age 65 years, excess costs were estimated at AU$415 (US$337) million, a 27% cost impost.

Implications
There is a considerable hospital cost penalty associated with persons with reported CP concerns, especially from adolescence into adulthood, highlighting an opportunity for cost savings by preventive investment in effective early-in-life interventions.

Can we use the Diagnosis Related Group classification to classify complexity in palliative care?

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Introduction

The referral criteria to Specialist Palliative Care (SPC) often include patients with complex needs. However, there is no consistent approach to defining, interpreting and classifying the complexity. We propose a novel way of defining patient complexity using the Diagnosis Related Groups (DRGs) to inform the decision making regarding who needs SPC.

Method

Data of all decedents in a tertiary hospital in Sydney between 1st January 2018 and 31st December 2019 was extracted from the local databases – hospital medical records and palliative care electronic records – and linked to the Activity Based Management Portal. The patients' records were uploaded into the DRG 'grouper' software to determine the R-DRG (Related-DRG) for episodes that occurred in the last 365 days of life regardless of their care type. Each R-DRG was classified as palliative or non-palliative care by a pre-determined algorithm. R-DRG complexity was categorised into high (major) or low (intermediate or minor).

Results

From a total of 1079 decedents, 577 (53%) patients were admitted to the SPC unit in the last year of life. A comparison of 1819 R-DRGs for SPC patients to 1700 R-DRGs for non-SPC patients indicated that palliative care patients had higher complexity compared to the non-palliative care group (77% versus 55%) with close to three times the odds of being classified as high complexity than those of the non-palliative R-DRGs (OR 2.77, 95% CI 2.27, 3.38).

Implications

The measure of complexity within the DRG shows that palliative patients are more likely to be associated with higher complexity than those not admitted to the SPC team. R-DRG complexity could be used as a marker for identifying patients with palliative care needs.

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A qualitative study on price transparency and specialist fee setting in the Australian private healthcare sector

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Introduction

The Australian government, through Medicare Benefit Schedule (MBS), defines schedule fees for specialist's services, and subsidises services to reduce the costs of burden on consumers but does not regulate prices. Specialists in the private system can charge more than the schedule fees depending on what they feel 'the market will bear', resulting in high and unexpected out-of-pocket (OOP) fees. To reduce pricing uncertainty and 'bill shock' faced by consumers, the government introduced a price transparency website in December 2019. The aims of this qualitative study are to explore factors influencing how specialists set their fees and participation in price transparency initiatives.

Population

Specialist surgeons and anaesthetists in the private healthcare sector

Methods

Twenty-seven semi-structured interviews were conducted, audio recorded and transcribed verbatim. The data were analysed using thematic analysis.

Preliminary findings

We identified several patient, specialist and system-level factors influencing how specialists set their fees. Patient-level factors included: patient characteristics, patient complexity, type and duration of procedure. Specialist-level factors included: perception of the pricing market, practice costs, skills and experience including self-worth, ethical considerations and attitudes towards fees, and gendered behaviour. System-level factors included: Australian Medical Association fees list, MBS rebates, insurance rebates and geographical location of practice. Specialists were supportive of greater price transparency but would not voluntarily disclose their fees publicly due to difficulties capturing patient complexity, the quality of care and concern such an initiative would inadvertently increase prices.

Implications

Our findings indicate that if a price transparency website is to be pursued and successful, it should be developed through a transparent process that is inclusive of specialists and with added safeguards that address their concerns. Our findings also provide a better understanding of the process by which specialists set their fees which can be used to inform future initiatives aimed at reducing patient OOP costs.

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Most surveillance colonoscopy recommendations do not adhere to guidelines: An audit and qualitative interviews at six Victorian public hospitals

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Introduction

Colonoscopies are important for detecting and treating bowel cancer, Australia’s third most common cancer. Patients considered at increased risk of bowel cancer should return for a repeat (surveillance) colonoscopy at intervals consistent with guideline recommendations. The aim of this study was to assess the rate of concordance of surveillance colonoscopy recommendations made by endoscopists at six Victorian public hospitals against the 2018 NHMRC-endorsed Cancer Council Surveillance Colonoscopy guidelines and to explore the factors influencing guideline uptake.

Methods

We audited a minimum of 40 consecutive surveillance colonoscopy interval recommendations at six Victorian public hospitals (4 rural/regional, 2 metropolitan) in 2021 using information from colonoscopy reports, histopathology results and other relevant patient data for each colonoscopy episode and compared these against the 2018 guidelines using an online audit tool. Actual timing to colonoscopy procedure was not measured. We also conducted qualitative semi-structured interviews with endoscopists, quality improvement staff, nurses and medical/endoscopy leads at each site to explore the factors influencing guideline uptake.

Results

Of 254 patient cases audited, 26% (n=66) had a surveillance colonoscopy interval recommendation that was consistent with guidelines. Of the 74% (n=188) that were non concordant, 74% (n=139) were recommended to return for repeat colonoscopy too early; 21% (n=40) were recommended a follow-up colonoscopy that was not indicated according to guidelines; and 5% (n=9) were recommended to return too late. Qualitative interviews suggest that endoscopists find the guidelines complex to implement and report being concerned about missing disease with less frequent surveillance, and that their patients feel more in control of their health with more frequent colonoscopies than recommended.

Discussion

Guideline concordance in the context of surveillance colonoscopy for bowel cancer is suboptimal and multiple barriers to guideline uptake exist. Strategies tailored to address these barriers is needed to optimise evidence-based, appropriate, and timely care.

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Survey of peer messengers about their role in a whole-of-hospital program that aims to reduce unprofessional behaviour amongst hospital staff

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Background

Professional accountability programs have been developed to address unprofessional behaviour amongst hospital staff. Peer messengers play a key role in these programs by providing informal feedback to staff about their unprofessional behaviour with the aim to raise awareness of behaviour and how it is perceived by other staff. However, little is known about the experiences of peer messengers. This study examined the experiences of peer messengers and their perceptions of a whole-of-hospital professional accountability program called ‘Ethos’.

Method

Peer messengers across eight Australian hospitals were invited to complete an online survey. The survey consisted of close-ended questions asking respondents about their experiences delivering messages to peers, as well as their perceptions of the Ethos program. Open-ended questions asked respondents about the most rewarding and challenging aspects of being a peer messenger and what they would change about the Ethos program.

Results

Of an estimated 145 peer messengers, 60 provided responses to the survey. The majority of respondents were from nursing and medical groups (53.4%). A majority had delivered 1-5 feedback for reflection messages to staff (57.7%). Rewarding aspects of being a peer messenger included having a meaningful conversation, having staff embrace the reflection process, and contributing to positive culture change. Challenging aspects included practical issues related to organising a time to talk with staff, delivering feedback for reflection effectively, and difficulties related to dealing with negative staff responses to feedback. Suggested changes to the Ethos program included improved promotion of the Ethos program and more support for peer messengers and recipients of feedback.

Implications

Professional accountability programs have shown promise in reducing unprofessional behaviour. Support and skills development for peer messengers are key in supporting their effectiveness and the sustainability of their central roles in such programs.

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Clinical outcomes and quality of care delivered by telehealth in common paediatric conditions- lessons from the pandemic

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Background

The COVID-19 pandemic prompted the widespread and rapid implementation of telehealth (TH). There is limited research comparing clinical outcomes and quality of care delivered via telehealth with in-person (IP) care to inform its ongoing role.

Methods

Electronic medical record of children with obstructive sleep apnoea (OSA), constipation, faltering growth in babies, asthma, and type 1 diabetes, attending clinic IP (March -September 2019) were compared to those attending the same clinic via TH (March- September 2020). We compared clinical outcomes and adherence to guideline concordant care with health economic analyses in progress.

Results

OSA: In the TH group (n=200), there were fewer bookings for adenotonsillectomy, 24(12%) vs 84(42%) $p<0.01$, and lower clinic discharge rates, 37(18.5%) vs 98(49%) $p<0.01$, compared to IP group (n=200). Constipation: There were unplanned admissions in the TH group (n=185), 11(6%) presented to emergency and 4(2.2%) were admitted compared to none in the IP group (190). Faltering growth: In the TH group (n=63), there was reduced documentation of anthropometry, 46(73%) vs 90 (91.8%), $p<0.01$, a higher number of investigations and lower discharge rate, 20(31.7%) vs 51(52%) $p=0.02$, compared to IP group (n=98). Asthma: In the TH group (n=72) less children presented to the emergency, 14(19.4%) vs 45(44.1%) $p<0.01$, with no difference in hospital admissions compared to IP group (n=102). Those seen via TH were less likely to have an Asthma Control Test Score completed, 22 (30.3%) vs 88 (86.3%) $p=0.01$, and fewer were discharged, 16 (22%) vs 46 (45%), $p=0.01$. Type 1 Diabetes: average HbA1c and years from diagnosis were similar between the TH (n=200) and IP group (n=200). When seen via telehealth, significantly fewer had a HbA1c completed (170 (85%) vs 200 (100%), $p<0.01$).

Implications

The ongoing use of TH needs to be complemented with physical examination, access to disease monitoring investigations, and anthropometry measurements.

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Providing care by telephone to humanitarian migrant groups in Victoria, Australia: an evaluation of telephone mode-of-care in Monash Health Refugee Health and Wellbeing clinic

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Background
During COVID19, telephone consultations were introduced as a preferred mode-of-care at Monash Health Refugee Health and Wellbeing (MHRHW) clinic. An evaluation was conducted to assess accessibility, appropriateness, efficiency, and possible adoption of this initiative as an optional mode-of-care.

Method
A convergent mix-methods design was used. Patients who attended telephone consultations completed a survey; clinicians completed a survey and participated in two focus groups. Data on service utilization was sourced from the MHRHW database.

Results
Out of 4964 consultations during May-December 2020, 61%(N=3012) were conducted by telephone. Of the 50 patients who completed the survey, most felt that a telephone consultation was as good or better than the standard face-to-face consultation across a range of domains. These included comfort with sharing private information (90%(n=45)), confidence that health concerns would be addressed (86%(n=43)), and ability to explain health concerns (74%(n=37)). Most patients (86%(n=43)) expressed willingness to use telephone consultations again. Eleven clinicians participated in the survey and 14 in focus groups. Most survey participants were able to communicate effectively with the patients (55%(n=6) and were satisfied with the care they delivered (55%(n=6)); however, only 9%(n=1) felt they were able to assess physical symptoms and 27%(n=3) functional performance. Most clinicians (55%(n=6%)) reported telephone consultations as taking approximately the same time as a standard face-to-face consultation. While most clinicians were willing to pursue telephone consultations in the future (91%(n=10)), the prevailing opinion was that the preference should be given to face-to-face consultations (55%(n=6)). Providing care by telephone was considered suboptimal for certain patient cohorts including children, patients with hearing impairment, new patients, patients with mental health concerns and patients with complex psychosocial situations including family violence.

Implications
Whilst telephone consultations were considered useful, they should be used with caution because of their limited accessibility and appropriateness for some patients of refugee background.

Understanding anaesthetists' choices of anaesthetics and perceptions of opportunities and challenges for reducing emissions

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Background

Healthcare produces 7% of Australia's carbon emissions; private and public hospitals produce almost half of this. Volatile anaesthetic agents have a significant greenhouse gas effect. A shift in practice by anaesthetists away from anaesthetic gases with high global warming potential could result in significant carbon and cost savings for the health system.

Objectives

To understand anaesthetists' reasoning for choosing anaesthetic agents and their perspectives on practice shift towards more environmentally friendly anaesthesia alternatives.

Method

A qualitative study involving in-depth interviews with anaesthetists from hospitals in Western Sydney. Interviews were conducted by phone or zoom. Participants were asked to reflect on drivers of current practice, their understanding of environmental impacts of anaesthesia, and for their views on choosing lower emissions options. We analysed data thematically using NVivo software.

Results

28 anaesthetists were interviewed from July to September 2021, with average interview duration 37 minutes. Mean age of the participants was 43 years, with 39% of the sample female. Half completed anaesthetics training 2010-2019. 65% used Sevoflurane as their primary anaesthetic agent, 20% used total intravenous anaesthesia as their primary. Overall, the environmental impact of anaesthetic options was considered important, but a secondary priority to patient safety and comfort. A sense of responsibility and guilt was reported by several participants as a driver for selecting lower emissions alternatives. Barriers to wider use of greener anaesthetic agents included clinician beliefs, attitudes, and capabilities, influence of social and professional norms, time and resource barriers, and perceived lack of evidence on alternative options.

Implications

We identified key opportunities and challenges to reducing the carbon footprint of anaesthesia in Australian hospitals, via individual behavioural change. Findings will be used to inform development of communication and behavioural interventions aiming to mitigate the carbon footprint of healthcare.

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Clinician and health service interventions to reduce the carbon footprint of health care: A systematic review

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The global health sector is responsible for around 5% of global net carbon emissions. Since clinical activity accounts for 80% of the total carbon footprint of health care, a crucial component to decarbonising clinical care is shifting clinical behaviour to avoid or replace carbon-intensive healthcare.

Objectives
To identify and synthesise the available evidence on the effects of interventions designed to reduce carbon emissions of health care.

Method
We searched CENTRAL, MEDLINE and Embase, from inception to 16th December 2021 to identify trials or before-after studies that assessed interventions primarily designed to reduce the carbon emissions of healthcare delivery, initiated by clinicians or healthcare services and within any setting. Our primary outcome was reduction in carbon or greenhouse gas emissions measured directly or indirectly. Secondary outcomes were patient-relevant outcomes, adverse effects, financial costs, engagement, and acceptability. We used standard procedures expected by Cochrane.

Findings
12 studies (11 uncontrolled before-after) published 2011-2021 met inclusion criteria (US: n=6, UK: n=4, Australia: n=2). All were performed in hospital settings. Interventions targeted delivery of anaesthesia (5/12), unnecessary test requests (3/12), waste/recycling (2/12), care pathways (1/12), and energy use (1/12). The primary intervention type was clinician education. Most studies (8/12) scored at least one ‘risk of bias’ item as unclear or high risk. Reporting of environmental impact was heterogeneous so data could not be pooled. We are uncertain if interventions designed by clinicians or healthcare services lead to changes in greenhouse gas emissions directly or indirectly as the certainty of the evidence is very low.

Key message
The study of interventions to reduce the environmental footprint of health care is an emerging field. All have been performed in hospital settings. Rigorous studies are needed to determine their true effects and further studies are also needed in other health settings such as primary and community care.

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Ethics is not a dirty word: Recognising the value in the ethics and governance processes in health services research

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Background

Ethics and governance processes for health research in Australia are often considered onerous, unnecessarily time consuming, and separate to core project activities. An ill-prepared ethics application can result in an ill-considered research protocol, leading to multiple Human Research Ethics Committee (HREC) reviews before approval is granted, and multiple amendments throughout the life of the project, all of which can result in delays in overall project progress.

Method

Our large health services research centre - which comprises health economists, statisticians, and implementation scientists - has a dedicated research coordination and support team that is responsible for a variety of large and small projects, including managing ethics and governance processes. Projects often use hybrid methodologies, requiring data collection from multiple, complex sources. Increasingly, research coordinators are tailoring support to academic researchers to incorporate project planning and ethics application preparation into a cohesive, streamlined process.

Findings

The practicalities of operationalising a research project - including recruitment, resourcing, data collection, and stakeholder engagement - have ethical implications which require consideration when preparing a protocol and ethics application, however these are often separated into two distinct streams of work. Projects where a combined project management/ethics preparation approach was taken demonstrated faster approval turnarounds and increased clarity of processes and outcomes. Projects that have not followed this approach have required multiple amendments, scope creep, and subsequent delays to project progress caused by multiple ‘start/stop’ points.

Key messages

Incorporating ethics preparation early and as part of overall project planning adds value to the overall approval and governance processes. Benefits can include fewer clarification requests from the HREC, faster approvals, and fewer amendments required during the project. This can result in fewer delays to research project progress, which in turn supports better quality and stronger outputs from health services research.

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Strategies to improve participant recruitment, retention, and outcome response in randomised controlled trials of early detection in populations at high risk of melanoma: a scoping review.

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Introduction

We conducted a scoping review to collate evidence on strategies to improve recruitment, retention, and response to outcome assessment in randomised controlled trials (RCTs) of melanoma early diagnosis in high risk populations.

Methods

We searched MEDLINE, EMBASE, CINAHL and CENTRAL (inception to January 2021) and forward and backward citations. We included published RCTs addressing melanoma surveillance. Two reviewers screened title and abstracts and full-text. Data was extracted on (i) measurement and reporting of participant recruitment, retention, and outcome response (ii) strategies employed to improve trial processes, and their evaluations.

Results

We identified and included 18 RCTs. We found that recruitment and retention processes were generally poorly reported; many studies did not report target sample size, time to complete recruitment or reasons for withdrawal or non-response. Strategies used to improve recruitment were mainly participant facing and included modification of the information given to potential participants about the trial, modification of the consent process, monetary and non-monetary incentives, and reminders. Strategies for increasing questionnaire response rate included participant support, engagement and incentives, reminders, and telephone follow-up. Few strategies targeted study staff or trial planning, design, and conduct. Only one study evaluated the effectiveness of a recruitment strategy.

Implications

The results of this review underscore the current lack of evidence on interventions targeting trial processes in RCTs of melanoma early diagnosis in high risk populations, and the need for improved reporting and evaluation of effectiveness. The findings will inform the design of a set of Studies Within A Trial (SWATs) to evaluate trial process strategies in an RCT of patient-led vs clinician-led surveillance in people treated for localised melanoma. Implementing SWATs in health service research is an important innovation to increase value in clinical trials, prevent research waste and increase resilience in the face of operational challenges.

Social Impact: The Impact of Aeromedical Transport Services on Seriously Ill Children and Rural Families

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Introduction

Little Wings is a nonprofit organisation that provides free medical flights for seriously ill children and their families from rural areas to receive life saving medical treatment at city based hospitals. Over the course of a six month research project, Little Wings identified the impact of the transport service including the educational, medical, social/emotional and economic impact.

Population

Parents of seriously ill children along with services providers and the medical practitioners who care for them were involved in the study.

Method

A total of 67 interviews were conducted with families, staff and medical professionals. Semi-structured interviews were conducted to obtain qualitative data with key themes being identified in each area of social impact.

Results

A number of key themes were observed with significant impact in the area of medical, economic and social/emotional impact. Lowered travel fatigue and anxiety were significant along with significant economic and community implications for families.

Implications

The first implication is the impact of aeromedical transportation services on children and families who are experiencing a period in their lives of extreme trauma and stress. How does having access to a supportive transport service improve the quality and outcome of their lives.

The second implication is the process of social impact research allows us to examine our work in a child and family centred way to determine what is our impact so that we can choose to do more of what has a positive impact and do less of those things that do not enhance the lives of those we care for.

A virtual integrated practice model to support rural general practices: A proof-of-concept

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Background

Recruiting and retaining adequate General Practitioner (GP) workforce in rural communities remains an immense challenge. Various strategies have been introduced over time to address this problem, but actions to date have not led to a sustainable solution. Since the coronavirus pandemic, virtual care options have become increasingly accessible to patients requiring GP services, creating an opportunity to explore digital solutions to GP workforce shortages in rural areas. The aim of this research is to conduct and evaluate a virtual integrated practice proof-of-concept, where GPs based in an urban/regional area join a rural general practice and provide ongoing care to patients remotely via telehealth. Our objectives are to understand the impact of the model on the Quadruple Aim outcomes and identify barriers and enablers to be addressed prior to expansion.

Setting

The model was co-created with the Western Queensland Primary Health Network, Health Workforce Queensland and three rural general practices recruited for the proof-of-concept. The service has been implemented in one practice so far, joined one day per week by an urban-based GP.

Method

Billing and service data, costs, and other administrative data are collected from each practice, and patients who use the service are invited to complete a short survey regarding their experience. Six months post-implementation, GPs and key practice staff are invited to participate in semi-structured interviews to understand provider experiences and determinants of implementation.

Results

In four months, 293 services have been provided through the program, including general consults (n=250, 85.3%), chronic disease planning (n=11, 3.8%), mental health planning (n=13, 4.4%), obstetrics care (n=17, 5.8%), and diagnostic/pathology services (n=2, 0.7%). Other data will be made available over the coming months.

Implications

This proof-of-concept has resulted in the provision of additional GP services to rural communities. Findings will inform any important modifications and guide future evaluations.

POPLAR, the Primary Care Ontario Practice-based Learning and Research Network

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Background

Ontario's Practice Based Learning Networks (PBLNs) have collaborated to form POPLAR (https://www.poplarnetwork.ca), the Primary care Ontario Practice-based Learning and Research Network. POPLAR is funded by the Ministry of Health of Ontario and is a program of the provincial primary care research – policy partnership INSPIRE-PHC (https://inspire-phc.org/). INSPIRE-PHC addresses the major health system challenges of equitable access to high quality primary health care (PHC) and better co-ordination and integration of PHC with other parts of the health and social care system.

Setting

Ontario's seven PBLNs, six affiliated with a University Department/Section of Family Medicine and one in the Alliance for Healthier Communities, which includes Community Health Centres and Aboriginal Health Access Centres from across the province.

Methods

Initiated in 2021, POPLAR is harmonizing EMR data collection and processing across the province. POPLAR coordinates efforts to implement clinical research and quality improvement initiatives in Ontario's primary care practices.

Results

POPLAR's data platform will include EMR data for over 1.5 million patients receiving care from the 1,000+ Ontario family physicians participating in their respective PBLN. Plans for an advisory committee and Patient Council are under way. A Program Manager and IT Specialist have been hired and lead POPLAR's Administrative and IT aspects. Approvals for the central POPLAR Data Platform have been obtained at all Networks; the provincial data platform is expected to be constituted this year.

POPLAR's Privacy Impact Assessment has been completed and is being finalized. Its Data and IT governance frameworks have been drafted and are being reviewed by relevant committees prior to presentation at Steering.

Key message

A person-centered Learning Health System requires data, research, and quality improvement, all embedded in sites where care is provided. POPLAR provides value by supporting all three.

How effective are centralized wait lists in attaching patients to a primary care provider? Ontario, Canada: 2011-2021

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Background

This study explores the effectiveness of a centralized waiting list (CWL) in connecting patients self-identified as unattached with a primary care provider. It is part of a Canada wide study taking place in 3 provinces including Ontario, Quebec and Nova Scotia.

Population

All Ontario patients identifying as looking for a primary care provider for the period 2011 to 2021 (1,081,844). This dataset is linked to a validated attachment algorithm to identify patient attachment status to a primary care provider in Ontario.

Methods

This is a retrospective cohort study of patients in Ontario, Canada who register themselves as needing a primary care provider. The analysis looks at attachment rates of those seeking a primary care provider, wait time analysis, and characteristics of both attached and not attached patients.

Results

Of the 1,081,844 CWL patient registrations, 54% were female. 58% (621,568) of patients were referred to a primary care provider leaving 38% on the list awaiting assignment, and 4% ‘in progress’. Of those patients referred to a provider, 67% (418,287) were successfully rostered (attached). One of the common reasons patients were removed from the list was patients locating their own physician (29%). Regional variation in use of the CWL was noted with 45% of all requests for placement coming from lesser populated Eastern Ontario. Further results to be reported will include wait time analysis, durability of attachment and characteristics of both attached and not attached patients.

Implications: This first of its kind data linkage found approximately 60% of those looking for a primary care provide were able to find them through a centralized wait list. Health service policy informed by this data will be more effective in ensuring more patients have a regular source of primary care.

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Early-career general practitioners' antibiotic prescribing for acute infections: a systematic review

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Background

Antimicrobial resistance is flourishing worldwide, exacerbated by inappropriate prescribing. Early-career general practitioners may be a target for long term change; their prescribing habits may persist throughout their career.

Aim

To determine the prescribing patterns of early-career general practitioners for acute infections.

Design and setting: Systematic review of antibiotic prescribing by early-career general practitioners for acute infections.

Methods

We searched 3 databases: PubMed, Embase, and Scopus. Two authors independently screened abstracts and full texts for inclusion. Primary outcomes were prescribing rates for acute infections such as upper respiratory tract infections, ear, nose, and throat (ENT) infections, skin and soft tissue infections. Secondary outcomes included odds ratios and risk ratios for years of experience in general practice as a determinant for the prescription of antibiotics.

Results

Of the 1388 records retrieved, we identified 27 relevant studies. Early-career general practitioners are less likely to prescribe antibiotics compared with their more experienced colleagues (OR 0.23-0.67). Their overall antibiotic prescribing is low for any condition (16- 30%). Prescribing for acute bronchitis had a large range and was country-dependent from 15.9% in Sweden, 26% in the USA, and 63-73% in Australia. Their prescribing for conditions such as sinusitis, otitis media, and other ENT infections remains high (59-84%).

Key message

Early-career GPs prescribed more appropriately than later-career GPs, but there are still significant improvements to be made, particularly for ear, nose, and throat infections. More research is needed for other conditions, and from alternative countries.

Health Systems Evaluations using System Dynamics: Why this is relevant for Health Services Research

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Health Systems Evaluations using System Dynamics: Why this is relevant for Health Services Research

Introduction or background

Health systems are complex, interactive and deal with the dynamic changes in supply, demand, technology, and cost. Due to this complexity, an intervention or a change in health policy influences several elements that should be considered in health systems evaluations. On top of that, there are several criteria that are the outcome of interest for health systems. Therefore, Dynamic Simulation Modelling (DSM) should be used for health systems evaluations to incorporate the dynamics and complexities associated with the health systems.

Method

In this presentation, we introduce System Dynamics (SD) as an effective DSM method in health services research. SD with a systematic view can map complex interactions among elements in health systems and evaluate interventions. So, SD can simulate health systems with dynamic and nonlinear behaviour. Causal loop diagram (CLD) and stock and flow structure are the SD's tools to offer modelling advantages such as (1) evaluating strategic health policies, (2) employing medical experts' opinions, (3) being less data intensive, (4) having visual and interpretable models, (5) facilitating model alterations for interventions.

Results or findings

This presentation introduces different components that are involved in SD modelling. We describe how to create CLDs based on the characteristics of health systems, and how to transform a CLD into a stock and flow structure. We present examples of health systems evaluation that have been done by SD. Using these examples, we show the capability of SD in modelling interventions and creating comparative outcomes for evaluation.

Implications or key message

This presentation gives an educational overview on SD for health systems evaluations. It also will provide the broader opportunities for health services researchers.

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Diagnostic delay of Myositis: an integrated systematic review

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Introduction

Idiopathic inflammatory myopathies (IIM) are a heterogenous group of rare muscular diseases characterized by skeletal muscle inflammation and extra muscular features. Despite its low prevalence, IIM has broad clinical characteristics and lacks conclusive diagnostic tests and commonly used comprehensive diagnostic criteria. This can make diagnosis of IIM challenging and result in delays in diagnosis and commencement of relevant treatment. Our aim was to review the existing evidence to identify overall diagnostic delay for IIM, factors associated with diagnostic delay, and people's experiences of diagnostic delay.

Method

Systematic search of three databases (PubMed/Medline, Scopus, ProQuest) and grey literature sources were conducted. The present review was conducted according to PRSIMA guidelines and Cochrane handbook. We pooled the mean delay using random effects inverse variance meta-analysis and performed subgroup analyses.

Results

328 titles were identified from which 27 studies were included in the review. 19 studies reported mean diagnostic delay. The pooled mean diagnostic delay to diagnosis of IIM was greater than two years.. Subgroup analyses revealed significant difference in diagnostic delay between IIM subtypes, with a greater than five-year delay for people with inclusion body myositis (IBM).. While studies discussed factors that may influence diagnostic delay, significant associations were not identified. No qualitative studies examining people's experiences of diagnostic delay were identified.

Key messages/Implications

People with IIM experience an average of greater than two years delay from symptom onset to diagnosis, and people with IBM on average experience more than a five-year delay. There is a lack of research examining factors associated with diagnostic delay and scarce evidence regarding people with IIM experiences during the time from symptom onset to disease diagnosis. This evidence is important to inform the development of tools and strategies aimed at increasing awareness of IIM, enhancing early diagnosis, and expediting appropriate treatment of this debilitating disease.

Resilience, innovation and leadership at a time of crisis and uncertainty: The Vulnerable Communities Group

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Background

The COVID-19 pandemic brought the world to a standstill. In March 2020, as face-to-face support diminished due to social distancing strategies, community challenges were heightened and there was increasing anxiety levels with stakeholders seeking a “source of truth” about COVID-19. The Vulnerable Communities Group (VCG) was established in response to this, to facilitate open communication and to strengthen community resilience. Led by the Executive Director, Toowoomba Hospital, the VCG, implemented in regional Queensland, has grown to an intersectoral community of practice with over 40 organisations.

Method

An anonymous online cross-sectional survey was distributed to the VCG group in August 2020, to evaluate the functioning of this group over a five-month period. The aim was to explore participants’ experiences in this group and to identify what is working well and strategies for improvement. Data were subject to descriptive statistical tests and content analysis.

Results

Twenty five responses (RR – 60%) were received. Results indicated that all respondents were satisfied with the group, with 71% rating the group as ‘very satisfactory’. 92% of the group members were satisfied with the meeting platform. 100% of the respondents were satisfied with the group processes and 96% were satisfied or very satisfied with the content of the group discussions. Content analysis of the free text responses yielded four categories of information: ‘Knowledge is power’, ‘Beating isolation through partnerships and linkages’, ‘Sharing is caring’, and ‘Ripple effects’.

Implications

The VCG initiative is one example of tackling the challenges due to the pandemic through brining the community together efficiently. The VCG has sustained and evolved to continue the collaborative, inter-sectoral partnerships to address the ongoing and emerging social issues thereby making a positive impact on the social determinants of health in our region.

Who is responsible for postpartum contraception advice and provision? The perspective of hospital-based maternity clinicians in NSW, Australia

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Background

Many pregnancies in the first year after a birth are not intended. Access to postpartum contraception is critical for the health of the mother and subsequent pregnancies. In many maternity settings in Australia, the roles and responsibilities of maternity care providers (including midwives, obstetricians and general practitioners) in providing postpartum contraception information and services is not always clear, and there is no consistent system or process to ensure timely access. We undertook an analysis of interview data conducted with hospital-based maternity clinicians as part of a larger study on midwifery provision of contraceptive implants in New South Wales, Australia, to document their views regarding access to postpartum contraception and clinician responsibilities.

Methods

Interviews were conducted with maternity hospital clinicians (midwives, doctors, midwifery managers and clinical midwifery specialists) in two hospitals. Reflexive thematic analysis was used for the analysis of interview data. Themes relating to postpartum contraception access, timing of contraceptive discussions and the role of clinicians were identified.

Results

Interviews were conducted with 21 hospital-based maternity clinicians. Participants suggested contraception discussions and provision are a shared responsibility by maternity care providers but identified inconsistencies and issues with current approaches. Ensuring postpartum contraception was accessible in hospital, primary care and community settings was raised.

Implications

Postpartum contraception discussions and provision are regarded as a shared responsibility by maternity care providers. This would ideally be led by the primary provider. These services are not routinely available or always easily accessible in Australian maternity care settings, however, and there is a lack of consistency in how postpartum contraception is managed. Access to postpartum contraception could be improved through routine inclusion of contraception discussions during antenatal and postpartum care, and greater collaboration between maternity care providers in hospital, community and primary care settings to support continuity of care through the postpartum period.

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Transitioning to a virtual model of physiotherapy and exercise physiology in rural NSW in response to Covid-19

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Background

Virtual healthcare has the potential to increase access to allied health for people living in rural areas, but challenges in delivery of such models have been reported. Covid-19 and new eHealth Medicare item numbers provided an opportunity for a rural practice of physiotherapists and exercise physiologists to transition to a virtual model of care.

Aim

To determine (i) the uptake of eHealth physiotherapy and exercise physiology services and patient satisfaction, compared to in-person services; and (ii) clinician confidence in delivering eHealth.
Setting: Observational study at a rural private practice between March and September 2020.

Method

De-identified data were extracted for 90 patients interested in receiving eHealth, with clinical data available for 32 patients. Comparison data from 32 patients attending in-person in 2019 matched by age, sex and presenting problem, were extracted. Clinicians completed a monthly survey tracking their confidence in delivering eHealth. Data were analysed descriptively, and t-tests used to compare changes in uptake and clinician confidence in delivering eHealth.

Results

Only 60 patients (67%) took up eHealth and attended 242 consultations. Program satisfaction data were available for 22/32 (69%) patients, with only 3 (14%) reporting high levels of satisfaction with eHealth, compared to 12/30 (40%) of controls reporting high levels of satisfaction with in-person services ($p=0.02$). Patients attended fewer eHealth consultations compared to in-person ($p=0.03$). Clinicians' confidence in delivering eHealth depended upon the frequency of provision ($p<.04$).
Implications: Uptake and patient satisfaction were low. Clinicians delivering eHealth should do so regularly to develop expertise. This study was limited by lower uptake of eHealth than anticipated.
Key Messages:
1) A hybrid model of eHealth and in-person consultations may maximise patient uptake and satisfaction.
2) Clinicians delivering eHealth should do so on an ongoing basis to maintain skills.

Hospital Length of Stay Prediction Tools for General Surgery Populations and Total Knee Arthroplasty Admissions: Systematic Review and Meta-Analysis

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Objective

Systematic review of tools that identify patients at risk of extended length of stay (LOS) for General Surgery populations and Total Knee Arthroplasty (TKA) to ascertain validated prediction variables and methods.

Method

LOS prediction tools published since 2010 were identified in 5 major research databases. Main outcomes were model performance metrics like area under receiver operating curve (AUROC), prediction variables and level of validation of models. Meta-analysis was completed for models reporting AUROC values. Risk of bias was assessed using the PROBAST checklist.

Results

5 studies (15 models) from General Surgery and 10 TKA studies (24 models) were identified. All General Surgery and 20 TKA models used classical statistical approaches, 4 TKA models used a machine learning approach. Discrimination measures were reported more frequently (14/15 studies) than calibration measures (3/15). Only 4 models were externally validated (3 General Surgery and 1 TKA). Meta-analysis: Pooled values of AUROC for the General Surgery group were 0.82 (95% CI: 0.78, 0.87) and 0.73 (95% CI 0.71, 0.76) for the TKA group. Risk scores and diagnostic groups were the predominant predictor categories used in model development. Overall risk of bias was moderate in 3/5 General Surgery studies and low in one TKA study, with the rest of the studies being at high risk of bias.

Conclusion

To our knowledge, this is the first systematic review assessing quality of risk prediction models for prolonged hospital LOS in General Surgery and TKA groups. We showed that risk prediction models in these populations were infrequently externally validated. Both machine learning and classical statistical modelling methods showed acceptable to good predictive performance. However, study quality was generally poor, typically related to poor reporting and lack of adoption of existing guidelines. Moving forward, a focus on quality methods and external validation are needed before clinical application.

Key Messages

What is known?

Although classic regression and machine learning are commonly used in risk prediction of various patient outcomes like LOS in many specific and mixed disease groups, there is an urgent need for external validation and impact assessment studies in the generalized risk prediction literature.

What does this study add?

To our knowledge, this is the first systematic review assessing quality of risk prediction models for hospital LOS in General Surgery and TKA groups. Most of the studies showed a high risk of bias, attributable primarily to poor reporting of analysis and evaluation of model performance. There is wide variation in the numbers and types of predictor variables, data pre-processing, model development processes and model evaluation metrics. We propose a list of suggested predictor categories for inclusion in predictive models for these groups.

How might this study affect research, practice, or policy?

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Centering Indigenous perspectives and priorities in a Learning Health System: a case study of the new Frontenac, Lennox & Addington Ontario Health Team (Ontario, Canada) – Research in progress

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Introduction

Health systems in Ontario, Canada have been restructured into Ontario Health Teams (OHTs). To ensure that unique needs of Indigenous peoples are met, there should be collaborative, participatory Indigenous-specific evaluation activities, with Indigenous-specific performance indicators. Research objectives - 1) To co-design, implement, and evaluate a governance process for collaboration with Indigenous communities, for Indigenous-focussed evaluation of activities of the Frontenac, Lennox & Addington (FLA) OHT. 2) To nest the above into a case study of the FLA OHT, examining processes for centering Indigenous perspectives and priorities in systems evaluation.

Method

Case study involving community-based participatory research (CBPR), and using principles of Ownership, Control, Access, Possession (OCAP) in ethical Indigenous health research. The research team involves Indigenous members of FLA OHT working groups and tables, other partners and stakeholders from the region's Indigenous communities, Queen's University researchers on the FLA OHT's evaluation support structure, and other FLA OHT members.

Results

Work in progress. Expected outcomes - 1) A framework to operationalize collaboration between Indigenous stakeholders and mainstream health systems, in the co-design and co-execution of health system evaluation approaches that reflect Indigenous perspectives and priorities. 2) Incorporation of Indigenous-specific evaluation activities for FLA OHT projects.

Implications

The framework produced will serve as a practical, operational guide to other mainstream health systems and Indigenous groups seeking to collaborate. The Indigenous-specific evaluation activities will enable thoughtful and rigorous consideration of whether the needs of Indigenous patients and communities are met, and allow for modification of programs and services – per the "learning health system" goal of iterative knowledge production and action to drive continuous improvement. Additionally, this project will strengthen relationships between the region's mainstream service organizations, policymakers, academic researchers, and local Indigenous peoples. Strengthened relationships will facilitate collaborative work to improve systems, as a step towards addressing Indigenous health inequities.

Introducing VOICE – Validating Outcomes by Including Consumer Experience: Developing a Patient Reported Experience Measure for Aboriginal and Torres Strait Islander people accessing primary health care – protocol for the VOICE study

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Background

Aboriginal and Torres Strait Islander peoples' experiences of health care are shaped by historical, social and cultural factors, with cultural security critical to effective care provision and engagement between services and community. Primary health care (PHC) services must formally gather patient feedback to meet RACGP accreditation requirements. However, currently available tools were not developed with Aboriginal and Torres Strait Islander peoples (hereafter respectfully referred to as Indigenous), and do not reflect their values and world views. Consequently, existing tools do not capture important experiences of care in Indigenous PHC settings, nor return information that assists services to improve care.

Methods

Guided by an Indigenous Reference Group, our team of Aboriginal, Torres Strait Islander and non-Indigenous researchers, service providers and policy makers will use a combination of Indigenous methodologies, participatory research, and traditional western techniques for scale development. We will engage service staff and communities in iterative cycles of data collection and feedback throughout the research process. Yarning circles with community will identify core concepts to develop an "Experience of Care Framework", which will be used to develop items for the patient reported experience measure (PREM). Staff will be interviewed regarding desirable characteristics and feasibility considerations for the PREM. The PREM will undergo cognitive and psychometric testing.

Results

At this early stage, we have enthusiastic engagement from eight services across remote, regional and metropolitan regions. Consistent with the principles of Indigenous Data Sovereignty, we will co-develop and validate an Indigenous-specific PREM that produces data by and for community suitable for use in comprehensive PHC services.

Implications

The community-driven PREM will enable Indigenous PHC services to assess consumer perceptions of care that reflect Indigenous values and world views. This feedback will enhance consumer engagement, improve health outcomes and help address the inequities in health and wellbeing experienced by Indigenous Australians.

Implementation of Promising Practices in Indigenous Primary Health Care Service Delivery: Findings from a Critical Realist Scoping Review

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Introduction/background

Primary healthcare (PHC) is essential for promoting health and wellness and reducing health inequities. Innovations in Indigenous PHC services arose from mainstream health services being unable to adequately meet the needs of Indigenous communities and Indigenous peoples. However, there is limited knowledge of the implementation considerations that contribute to the success of Indigenous-driven models for PHC. An Indigenous model of care fosters relationships and collaboration between care providers, and patients and ensures Indigenous knowledge, local context, equity of access, and integration of services is supported.

Population/setting

This review sought out to identify Indigenous PHC innovations from an international perspective, highlighting key characteristics and features of Indigenous-focused PHC models, and contextual or environmental enablers that support innovations in Indigenous PHC service delivery. Best practices in Indigenous PHC are informed by best available evidence, Indigenous knowledge and expertise, and improve quality of care and health outcomes for Indigenous peoples.

Method

A critical realist scoping review methodology was utilized to identify key characteristics of Indigenous-focused PHC models, as well as key considerations for sustainability of these models. The search strategy was conducted in four journal databases. Each program, service or intervention included in the review was scored using the Ways Tried and True framework.

Results/findings

A total of 46 articles met the inclusion criteria and were situated in either Canada, United States, New Zealand or Australia. Using thematic analysis and two expert review panels, several implementation considerations were identified: (1) building trust, (2) ensuring programs, services or interventions are Indigenous-centred, (3) having flexibility, (4) decolonizing health systems, (5) community, organizational and practice readiness, (6) interdisciplinary care, (7) collaboration and coordination of care, (8) continuous improvement, (9) relational co-design, and (10) addressing structural and systemic barriers.

Implications/key message

These key implementation considerations can be applied globally to Indigenous PHC interventions, services, and programs.

Health-related quality of life of Māori adults in Aotearoa New Zealand

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Background

In Aotearoa New Zealand (NZ) there are considerable inequities in health status and outcomes for Māori. For non-Māori, the prevalence of chronic disease and mortality rates across most ages are substantially lower, with life expectancy considerably higher, relative to Māori. To address these inequities, it is important that the health status and preferences of Māori are used to guide policy and decision making.

Methods

Using the personal value sets of 390 Māori adults from the NZ EQ-5D-5L (a generic measure of health-related quality of life (HRQoL)) social value set, participants' responses on the five dimensions of the EQ-5D-5L were dichotomised into "no problems" and "some problems", summarised and disaggregated by age group. Utility values (calculated using each participant's EQ-5D-5L profile and preference weights for 3125 different health states) were summed and their respective means and standard deviations calculated. Mean utility values were reported by age, gender, chronic disease status, employment, income, and disability. Mean preference weights were reported by age group and overall.

Results

The EQ-5D dimensions with the highest proportion of participants reporting problems were Pain/Discomfort (61.5%) followed by Anxiety/Depression (50%). The mean utility value was 0.83 with the lowest value (0.79) in the youngest age group (18-24 years). The most commonly-reported chronic disease was mental illness/distress (24.6%). Participants with a chronic disease or long-term disability had lower mean utility values (0.76 and 0.69, respectively) compared to those without (0.91 and 0.89). Anxiety/Depression ranked as the most important dimension to participants (particularly in the youngest and oldest groups) with Usual Activities ranked the least important.

Key message

To reduce inequities, health care resources need to be effectively allocated. It is therefore crucial that the health status specifically of Māori and the values they place on HRQoL are properly understood which can only be achieved using Māori-specific data.

Planning for mental health service provision: estimating the difference in common mental disorder diagnoses for Aboriginal and Torres Strait Islander Peoples compared to the general Australian adult population

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Background

Mental illness disproportionately affects Aboriginal and Torres Strait Islander peoples (henceforth referred to as Indigenous Australians) in comparison to the general Australian population. Despite knowledge of this vast and unacceptable gap, there is currently little nationally representative diagnostic data available to help determine the quantum of mental health services required by this population. This study aimed to quantify how many Indigenous Australian adults may need a mental health service in any given year by estimating the rate ratio of Indigenous to general population common mental disorders using proxy measures.

Setting

National Indigenous and general population surveys are regularly conducted to assess population health in Australia. Although diagnostic mental health assessments are not included, these surveys provide estimates of self-reported clinical diagnoses of mental disorders and significant psychological distress, a proxy measure for common mental disorders.

Method

Analysis of the five most recent Australian Indigenous and corresponding general population surveys was undertaken. Kessler-5 summary scores by 10-year age group were computed as weighted percentages with corresponding 95% confidence intervals. A series of meta-analyses were conducted to pool prevalence ratios of Indigenous to non-Indigenous significant psychological distress. The proportion of respondents with self-reported clinician diagnoses of mental disorders was also extracted from the most recent survey iterations.

Results

Indigenous peoples are estimated to have between 1.6 and 3.1 times the national prevalence of anxiety and mood disorders.

Key message

Needs based service planning requires an understanding of the mental health service needs of your population of interest. Relying on indirect indicators of service needs, such as current service utilisation, may result in an underestimate of resourcing required to service the population. Being able to estimate the national prevalence of common mental disorders for Indigenous Australians will result in better informed planning, needs based service provision and improved health outcomes.

Systemic changes to address health inequity: how can Australia’s healthcare system better control rheumatic heart disease among Indigenous Australians?

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Background
Rheumatic heart disease (RHD) is a chronic condition, with genesis in throat/ skin infections causing an acute autoimmune reaction, mainly in children and young adults. The high burden in Indigenous Australians and premature morbidity/death due to complications significantly contributes to health inequity. This National study aimed to identify barriers and enablers within Australia’s primary healthcare system for suitably managing RHD from the perspectives of primary health care service providers and senior health stakeholders.

Method
Descriptive mixed methods involving two sub-studies: a survey (health service providers) and yarning interviews (RHD stakeholders). The six pillars of the WHO Health System framework (adapted to the Australian context) were used to map research data to: 1) primary health care recommendations drawn from the RHD Endgame and 2) principles for service delivery drawn from the Australian RHD Guidelines.

Findings
Leadership/governance: data governance and decision-making authority needs to be based in inter-sectorial collaborations between Indigenous leaders without non-Indigenous intermediaries.
Workforce: an adequately resourced, skilled, culturally secure, stable workforce is needed, in particular valuing and supporting Indigenous staff by providing culturally safe work environments.
Service delivery: reforming health care, often compromised by medical-centred models of care, requires multi-sectorial partnerships/collaboration with a community-centred, primordial prevention focus.
Finance: resources available for comprehensive RHD management are not sufficient. Funding needs to: reflect community priorities; have longer cycles for service-related programs and be better coordinated.
Technology: resourcing required to develop improved prevention/treatments potentially conflicts with resourcing needed for community development and socio-environmental change.
Information systems: improving services through data sovereignty principles, co-design and community leadership was emphasised, requiring better access to data and training/capacity building to facilitate data literacy.

Conclusions
synthesis of research results using the WHO Innovative Care for Chronic Conditions Framework articulates detailed actions required, emphasising the requirement for a strong positive policy environment and community engagement.

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Defining the types and intensity of services required by discrete population groups within specialist forensic mental health settings

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Background
The Australian government seeks to plan mental health services in a systematic and informed way. This study aimed to create an evidence base for the inclusion of forensic mental health services in a national planning tool by determining key attributes used to define how people with similar mental health service needs are grouped within forensic service settings and the types and intensity of mental health services required by each identified group.

Method
A mixed methods approach using focus groups and an online survey was used. Stakeholders were identified through existing networks, peak bodies and through their roles (service directors and managers, peer workers and lived experience advocates). Focus groups were conducted online and convened based on key service settings (bed-based services, community services and court liaison services).

Results
Thirty-two unique participants participated in the study (focus group n=18; survey n=21). Five discrete population groups requiring forensic mental health services were identified: (1) severe and complex mental illness requiring bed-based services; (2) severe and complex mental illness requiring non acute rehabilitation services; (3) severe and complex mental illness requiring community-based services; (4) people requiring forensic community outreach services; and (5) people requiring court liaison services. Key themes defining groups and the services they require included level of risk, level of security required, type of service response required, level of functional impairment and stage of engagement with the criminal justice system. Additional themes relevant to all groups were identified, including the need to respond to comorbidities and the presence of interrelationships with mainstream mental health services.
Implications

This study has generated an understanding of characteristics influencing need for mental health services within forensic mental health settings and service types required to address that need. The results could be used to inform a nationally consistent approach to planning mental health services.

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Building the capacity of community mental health services to provide chronic disease preventive care: protocol for a cluster randomised controlled trial

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Introduction

People with a mental health condition experience higher rates of chronic disease than the general population. Preventive care to address key chronic disease risk behaviours is infrequently provided by community mental health services. This study aims to develop and test a practice change intervention to increase delivery of such preventive care.

Setting

12 community mental health services across 3 Local Health Districts in New South Wales, Australia.

Method

Services will be randomised to an intervention (implementing a new model of preventive care) or a control group (usual care). The model of care comprises three components: (1) a dedicated ‘healthy choices’ consultation offered by a ‘healthy choices’ clinician; (2) embedding information regarding risk factors into clients’ care plans; and (3) the continuation of preventive care by mental health clinicians in ongoing consultations. Evidence-based implementation strategies will support implementation, which will be tailored by being co-developed with service managers and clinicians. The primary outcomes are client-reported receipt of: (1) an assessment of chronic disease risks (tobacco smoking, inadequate fruit and vegetable consumption, harmful alcohol use and physical inactivity); (2) brief advice; and (3) referral to at least one behaviour change support. Resources to develop and implement the intervention will be captured to assess cost effectiveness.

Expected findings

The findings will add to the limited literature regarding interventions to support the delivery of preventive care for multiple chronic disease risk behaviours. This knowledge will inform the development of future service delivery initiatives to achieve guideline- and policy-concordant preventive care delivery.

Implications

The proposed study will increase knowledge regarding effective initiatives to support routine preventive care delivery within community mental health services. Identifying effective population-level approaches to reducing the high prevalence of chronic disease risk factors for people with a mental health condition has the potential to prevent chronic disease development.

Organisational support measures to enhance healthcare workers' mental health and wellbeing: Findings from a rapid review

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Background

Evidence is mounting on the adverse impacts of the COVID-19 pandemic on the mental health and wellbeing of healthcare workers globally. Emerging research has indicated that female healthcare workers are particularly susceptible to experiencing adverse mental health challenges, with far-reaching impacts, such as depression, anxiety, stress, insomnia, and burnout. This rapid review aimed to identify organisational support measures that enhance healthcare workers' mental health and wellbeing, particularly for females.

Method

The WHO and Cochrane guidelines guided the review. Medline/PubMed, CINAHL and Cochrane Library were searched. Searches were restricted to systematic reviews published in the English language between 2012 and 2022. All included reviews were critically appraised using the JBI checklist for systematic reviews.

Findings

Fifteen systematic reviews met the full inclusion criteria. Narrative synthesis of extracted data resulted in the following themes: ongoing professional support interventions (e.g. clinical supervision, mentoring) lead to more positive organisational outcomes (compared to cognitive-behavioural or relaxation interventions), social connections and supportive relationships at work have a protective effect on mental health and wellbeing. Variability of interventions (type, mode, dosage), and diversity in outcomes measurements (i.e. minimal evidence of standardisations) are barriers to advancing this area. None of the reviews identified interventions that specifically targeted or improved outcomes for female healthcare workers.

Implications

Although findings need to be interpreted with caution given the heterogeneity and quality issues in the included reviews, a number of implications for future research, policy, and practice have been illuminated. Despite the volume of studies included across the 15 reviews, more studies are needed that use standardised measurement tools, measure long-term impacts of interventions, and measure more than self-rated perceptions. Support measures that are ongoing and relational, when effective, could have the most impact on promoting organisational outcomes such as reduction of stress, burnout and enhanced worker wellbeing and job satisfaction.

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Supporting Healthier Lifestyles for People Living with a Mental health Condition: A Role for Community Managed Organisations

Prof Jenny Bowman
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Supporting Healthier Lifestyles for People Living with a Mental health Condition: A Role for Community Managed Organisations

Jenny Bowman, Kate Bartlem, Tara Clinton-McHarg, Lauren Gibson, Julia Dray, Caitlin Fehily, Magdalena Wilczynska, Olivia Wynne, Joanna Latter

Introduction

Community managed organisations (CMOs) may play a valuable role in providing preventive care to people living with a mental health condition to improve lifestyle health behaviours (smoking, nutrition, alcohol and physical activity). Little research however has explored the extent to which this potential is being realised or how the capacity of CMOs to provide preventive care might be increased. This presentation provides an overview of the NSW-wide ‘CMO Connect’ project; designed to address this gap.

Methods

The project is triangulating data collected from CMO leaders, staff and consumers, using both quantitative and qualitative methods. It is assessing the current provision of preventive care, barriers and facilitators to provision, as well as consumer views of acceptability. A pilot trial of co-developed strategies to increase the capacity of CMO staff to support consumers in improving lifestyle health behaviours is underway. This presentation will provide an overview of key findings from the project to date.

Results

Despite consumer expectation of receiving preventive care from their CMO support workers, such care is infrequently provided systematically, across behaviours, for all consumers. Factors likely to facilitate routine and comprehensive care provision include: staff training and guidelines; the availability of funding at both a service and consumer level; the degree to which the importance of a healthy lifestyle is embedded within organisational culture; and awareness of supports which might be offered by other CMOs and services, and to which consumers might be connected.

Discussion

Tailored strategies are required, co-developed with CMO staff and consumers, to increase the capacity for preventive care provision to consumers. Given diversity across CMOs in care and funding models, adaptable strategies will be especially important.

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Co-designed Telepractice service model implementation in the Australian Disability Sector

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Introduction

The use of telepractice in the disability sector, within Australia and internationally, escalated significantly since the advent of the coronavirus pandemic in March, 2020. A recent study reported an increase of telepractice experience for international allied health therapists from 4% pre pandemic to 75% during (Camden,2021). The aim of this study is to evaluate the implementation of a co-designed telepractice service model in the Australian disability sector; utilising service user experience during the initial pandemic implementation of telepractice to inform areas of focus.

Background

Crisis implementation of telepractice service models occurred with significant financial outlay for hardware and infrastructure; as well as substantial stress and pressure on therapists providing services to a vulnerable population during uncertain times. Sustained utilisation of telepractice service models has shown to be poor in areas where long term lockdown regulations were not implemented, such as Perth. Frequency of reported telepractice sessions remain low as reported by the study industry partner Rocky Bay, apart from during periods of enforced lockdown.

Method

An investigation of multi-system level barriers and facilitators to telepractice utilisation will be carried out under the Consolidated Framework for Implementation Research (CFIR), including a scoping review of available literature and a corroborating qualitative survey of telepractice models nationally. Furthermore, an in-depth analysis of service user, provider and organisation barriers and facilitators to implementation will be undertaken at the industry partner site, with a co-designed service reform output to be trialled in a pilot cohort prior to widespread implementation.

Implications

Implementation of the project supports a sustainable integration of telepractice as an accessible tailored model that considers the lived experience of peoples with a disability. With an adequate implementation strategy, the Australian disability sector policy directive of Choice and Control has the potential to design services which truly co-create value with users.

How is equity considered during implementation of health system reforms? A scoping review of the literature from 2013 - 2022

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Background

Health equity and the reduction of disparities are commonly asserted goals of state health systems. However, there is limited understanding of how best to implement equity promoting strategies as a part of large-scale system reforms. In recognition of this knowledge gap, we are conducting a scoping review to: (1) identify methods and frameworks explicitly addressing equity in the implementation of health system reforms and initiatives; (2) describe health system contexts in which methods and frameworks have been developed; and (3) assess their utility in improving health equity outcomes.

Method

Using Arskey and O'Malley's scoping review methodology, we systematically search the peer-reviewed literature from 2013-2022 for equity-focussed research for health system reforms. A comprehensive search strategy will capture literature inclusive of four domains: equity; implementation; health system; and theories, models and frameworks. Findings will be reported according to the PRISMA-scoping and PRISMA-equity extension statements.

Findings

We will present an overview of identified methods to address health equity when introducing health system reforms and initiatives. The context and delivery system in which the methods were developed, their approach, characteristics, and impact will be presented. An analysis of the extent to which these methods are applied across the implementation life cycle will also be presented.

Implications

Findings will address knowledge gaps in what has been done to achieve more equitable health systems and synthesise evidence of innovative practices across varied health system contexts. We will discuss implications for enhancing equity, including implications for health policy reform, planning, implementation, and evaluation at different levels of the health system.

Implementation of a peer support program for people with heart disease

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Cardiac rehabilitation (CR) has proven to decrease mortality rates and enhance quality of life, yet adherence, access, and sustainability of CR interventions remain suboptimal. Traditional CR programs are derived from an in-person, hospital-based model, which often presents with challenges in coping with an increasing demand for secondary preventive care among patients with heart disease.

A ‘peer support’ model has been developed to facilitate secondary prevention of coronary heart disease in patients who have limited access to traditional methods or do not have access to a traditional CR program. The community-based, peer support program will comprise 1) an in-person program where local champions (survivors) are trained to deliver peer support groups within their local communities, and 2) a digital component which will be delivered through a mobile application. Both in-person and digital aspects of this intervention has been co-designed by survivors of heart disease to ensure the program is tailored to preferences and needs of participants.

This project will expand on the current evidence-base to determine whether implementation of a community-led peer support program can improve clinical and health outcomes and ultimately, contribute to transforming post-hospital models of care for people with heart disease. It will also highlight the importance of implementing translational research to inform routine practice for quality improvement in CR.

The presentation will provide an overview of evidence to validate a peer support framework for use in cardiac rehabilitation and as a community-based strategy to improve self-management and close the gaps in post-discharge care. The presentation will outline methodology of a community-based, stepped wedge cluster randomised controlled trial and process evaluation of delivering a peer support training program that will inform clinical decision-making in CR implementation.

Improving implementation of smoking cessation support in pregnancy – protocol for the MOHMQuit trial

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Background
Smoking is the single most important preventable cause of adverse pregnancy outcomes, including stillbirth, preterm birth and low birth weight. These harms are reduced if women stop smoking during pregnancy. Although rates of smoking are declining, large disparities remain. Many pregnant women are motivated to quit but face significant challenges including a lack of effective support from health professionals. Evidence-based guidelines recommend routine and repeated smoking cessation support (SCS) for all pregnant women. However, provision of this support is inconsistent.

Methods
Using a cluster-randomised stepped-wedge design, this project will trial an innovative, evidence-based program – MOHMQuit (Midwives and Obstetricians Helping Mothers to Quit). MOHMQuit is a multi-component program designed to help clinical leaders and clinicians to better support pregnant smokers to quit. It was developed using a theory-driven, evidence-based approach (the Behaviour Change Wheel) and is designed to be replicable and scalable. MOHMQuit takes a whole-of-system approach and includes system-, clinical leader- and clinician-focused elements.

MOHMQuit will be implemented in eight public maternity services providing antenatal care in NSW, to: 1) test the effectiveness of MOHMQuit in increasing cessation among pregnant women; 2) determine the cost-effectiveness of MOHMQuit; 3) determine the effectiveness of MOHMQuit in changing clinician knowledge, confidence and attitudes and provision of SCS (documented and self-reported); 4) undertake a process evaluation and assess fidelity of implementation; 5) provide participating sites with useful quality improvement data.

Results
The trial will run for three years, and final results will be available in 2025.

Implications
The trial will generate robust evidence of the effectiveness and cost-effectiveness of the MOHMQuit intervention in 'real world' conditions and will address a priority issue for our partner organisations. Additionally, it will contribute to the evidence base for implementation of 'best practice' into clinical care and support the translation of findings into practice.

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Implementation strategies to increase smoking cessation treatment provision in primary care: a systematic review of observational studies

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Background

Internationally, there is an ‘evidence-practice gap’ in the rate healthcare professionals assess tobacco use and offer cessation support in clinical practice, including primary care. This important health service challenge requires effective and cost-effective solutions. ‘Implementation strategies’ are methods/techniques to enhance the adoption, implementation, and sustainability of a clinical program/practice. Aim: To identify implementation strategies delivered in primary care aiming to increase smoking cessation treatment provision, their effectiveness, cost-effectiveness and any perceived facilitators and barriers for effectiveness.

Method

Seven databases, and three grey literature sources were searched from inception to April 2021. Studies were included if they evaluated implementation on a national or a state-wide scale, contained practitioner performance and patient smoking outcome measures. Studies were assessed using the Risk Of Bias In Non-randomized Studies of Interventions (ROBINS-I) tool. A narrative synthesis was conducted.

Findings

Of 49 included papers, half were of moderate/low risk of bias. The implementation strategies identified involved utilising financial strategies, changing infrastructure, training and educating stakeholders, and engaging consumers. The first three strategies increased the provision of cessation advice in primary care but no intervention had high-quality evidence of impact on patient smoking cessation. No studies assessed cost-effectiveness. External policies/incentives (tobacco control measures and funding for public health and cessation clinics) were key facilitators. Time and financial constraints, lack of free cessation medications and follow-up, deprioritisation and unclear targets in primary care, lack of knowledge of healthcare professionals, and unclear messaging to patients about available cessation support options were key barriers.

Conclusions and implications

Some implementation strategies increased the rate of smoking status recording and cessation advice provision in primary care, but there was no high-quality evidence showing an increase in quit attempts or smoking cessation. Identified barriers to effectiveness should be reduced. Recommendations: pragmatic approaches, hybrid effectiveness-implementation designs and utilising Multiphase Optimization Strategy methodology.

Building the plane while it's flying: implementation lessons from integrating a co-located exercise clinic into oncology care

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Purpose
Despite its therapeutic role during cancer treatment, exercise is not routinely integrated into care and implementation efforts are largely absent from the literature. The aim of this study was to evaluate a strategy to integrate the workflow of a co-located exercise clinic into routine care within a private oncology setting in two clinics in the metropolitan region of Western Australia.

Methods
This prospective evaluation utilised a mixed methods approach to summarise lessons learned during the implementation of an integrated exercise workflow and supporting implementation plan. Data collection was informed by the RE-AIM (Reach, Effectiveness, Adoption, Implementation, Maintenance) framework. Reports detailing utilisation of the exercise service and its referral pathways, as well as patient surveys and meeting minutes documenting the implementation process informed the evaluation.

Results
The co-located exercise service achieved integration into routine care within the clinical oncology setting. Patient utilisation was near capacity (reach) and 100% of clinicians referred to the service during the 13-month evaluation period (adoption). Moreover, ongoing adaptations were made to improve the program (implementation) and workflows were integrated into standard operating practices at the clinic (maintenance). The workflow performed as intended for 70% of exercise participants (effectiveness); however, gaps were identified in utilisation of the workflow by both patients and clinicians.

Conclusion
Integration of exercise into standard oncology care is possible but requires the ongoing efforts of multiple stakeholders across an organisation. The integrated workflow and supporting implementation plan greatly improved utilisation of the Co-LEC demonstrating the importance of targeted implementation planning. However, challenges regarding workflow fidelity within and across sites limited its success highlighting the complexities inherent in integrating exercise into clinical oncology care in a real-world setting.

Identifying barriers to de-implementing low-value pressure injury care in acute and sub-acute care: a mixed-methods systematic review using the Theoretical Domains Framework

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Background

Low-value pressure injury care is a persistent problem that can have multiple negative consequences for patients and hospitals. An end-user informed intervention that is underpinned by the Theoretical Domains Framework (TDF) has the potential to facilitate the de-implementation of low-value care. This systematic review aimed to i) synthesise quantitative and qualitative evidence on hospital clinicians' and patients' views of barriers to implementing evidence-based pressure injury prevention and management (PIPM) guidelines; and ii) to map the identified barriers to the TDF.

Methods

A convergent integrated mixed-methods systematic review was conducted based on the Joanna Briggs Institute approach. English language peer-reviewed studies published from 2009 to May 2021 were identified from Medline, EMBASE, CINAHL, PsycINFO and Cochrane Central Library. Studies were included that reported hospital clinicians' and patients' views on current PIPM practices and barriers to implementing PIPM guidelines in acute and subacute settings. The Mixed Methods Appraisal Tool was used in critical appraisal. Quantitative data was transformed into qualitised data, then thematically analysed with the qualitative data. Barriers were mapped to the TDF domains.

Results

Fifty out of 14488 studies (27 quantitative and 23 qualitative) met the inclusion criteria. Most were at low risk of bias. The emerging themes reflect a nurse-led multidisciplinary approach to evidence implementation promotes active patient participation and facilitates the uptake of evidence-based PIPM guidelines. Barriers identified by clinicians were lack of up-to-date knowledge of evidence-based PIPM (Knowledge domain) and lack of resources to perform PIPM strategies (Environmental Context and Resources domain). Barriers identified by patients were lack of awareness (Intentions domain) and understanding of PIPM (Knowledge domain).

Implications

The TDF assisted with systematically identifying determinants of low-value pressure injury care and potential strategies to include in a multifaceted intervention to improve guideline uptake. This will include multidisciplinary-team-based professional education, environmental restructuring and patient-oriented educational materials.

Accessibility and experiences of health care for Australian LGBTIQ+ people

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Background
Lesbian, gay, bisexual, transgender, queer/questioning, intersex and other associated sexual and gender identities (LGBTIQ+) people have unique healthcare needs. Evidence suggests these people may have challenges in accessing and navigating healthcare systems.

Population
LGBTIQ+ Australians and their barriers to and experiences with healthcare.

Method
Semi-structured interviews were conducted with participants (N=22) from across Australia either in person, via telephone, or using Zoom videoconferencing software. Questions targeted general experiences with healthcare, comfort with and confidence in seeking help, confidence in the health care providers' ability to help, and positive and negative experiences of healthcare, including perceived discrimination.

Results
Twenty-two participants aged from 18 to 52 years (M=33.4, SD=10.5) completed an interview and were included in the analysis. The participant group was diverse, the majority (17/22; 77%) of participants used more than one term to describe their experience. The most common were queer (n=8), bisexual (n=6), gay (n=6), asexual (n=4), lesbian (n=4), and non-binary (n=4). Over one-third (n=8) of participants identified as transgender. Participant experiences of healthcare were varied and described access to a range of healthcare providers and types of healthcare. Many described negative experiences relating to a lack of understanding of LGBTIQ+ issues by health professionals, including for mental health issues. Positive experiences often described finding a health professional who was identified as helpful from within the LGBTIQ+ community.

Implications
The current study suggests that there are some unique challenges facing LGBTIQ+ people accessing Australian healthcare. Partnering with LGBTIQ+ organisations and individuals for awareness raising and training may help to address these challenges.

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The lived experience of patients with obesity at a metropolitan public health service.

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Introduction/background

Patient-centred care models for acutely hospitalised people with obesity are poorly understood and the quality of evidence low. The aim of this study was to explore the lived experience of hospitalised patients with obesity, with the overall objective utilising this information to drive service improvements for this increasing patient population.

Population/setting

The study was completed at a metropolitan public health service and included previously hospitalised patients.

Method

Qualitative design was implemented. Data was collected via ten semi-structured interviews. Interpretative Phenomenological Analysis (IPA) was used to analyse the data and identify key themes. Previously hospitalised patients with obesity were included.

Results/findings

A comprehensive data set was produced, that simultaneously supported existing clinical opinion and provided new insight into what is important from the patient perspective. Three main themes emerged as important factors to hospitalised patients with obesity: meeting physical care needs; interpersonal interactions and psychosocial impact. The themes identified in this study provide direction for future research to work towards improved models of care for this patient population in this setting and beyond.

Implications/key message

- Timely provision of appropriate equipment and consideration of the design of infrastructure to support the care of this cohort should be considered.
- Education around specialised manual handling and understanding the psychosocial complexities of being obese should be addressed.
- An emphasis on basic principles of care provision to enhance interpersonal interactions, along with improved understanding of the impact of weight bias and obesity stigma in healthcare are also supported.

Preparing healthcare professionals to support weight loss is another key recommendation.

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Australian value set for heart disease using MacNew-7D

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Introduction

The MacNew-7D is new multi attribute utility instrument derived from MacNew heart disease related quality of life instrument. The MacNew-7D contain seven dimensions with four severity levels in each: physical restriction; excluded from doing things with other people; worn out or low in energy; frustrated, impatient or angry; unsure and lacking in self-confidence; shortness of breath; and chest pain. This classification system will need associated utility value set to calculate quality adjusted life years. This study developed the Australian utility value set for Macnew-7D.

Population

An Australian online panel was used ensuring representation to the general population by age, sex, and State of residence.

Methods

Participants (n=1903) completed a discrete choice experiment consisting of 8 choice sets with 25 blocks plus a dominant and repeat task. Each choice set consisted of two MacNew-7D health states with duration of life. conditional logit model was used to derive relative preferences for different dimensions of health, and these were anchored on the 0-1 death to full health scale. The responses were analysed for stability and consistency of preferences.

Results

The sample was representative of the Australian general population. All respondents completed the 10 choice tasks. There were 234 and 395 respondents who responded incorrectly to the dominant and repeat task. Generally, dimension level coefficients were monotonic leading to decrease in utility with increasing utility. Dimensions “worn out” and “self-confidence” did not follow this trend with level 3 and 2 showing inconsistencies. These levels were collapsed with immediate adjacent levels to achieve consistency.

Implications

This study developed the first Australian country specific value set for MacNew-7D which will facilitate QALY calculations when MacNew quality of life questionnaire is used to collect data and will be useful in heart specific health interventions to conduct economic evaluations.

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Development and validation of a risk index to predict kidney graft survival: the Kidney Transplant Risk Index

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Background
Transplanting kidneys to recipients based on the presumed longevity of the kidney graft is a strategy that is being tried to increase the kidney donor pool. For this graft failure risk prediction models are crucial in deciding who is the most suitable recipient. Our objective was to develop and validate statistical and machine learning predictive models to predict death-censored graft failure following deceased donor kidney transplant, using time-to-event (survival) data in a large national dataset from Australia.

Population
Patients who had a deceased donor kidney transplant from January 1st, 2007 to December 31st, 2017 in Australia

Methods
Data included donor and recipient characteristics (n=98) of 7,365 deceased donor transplants from January 1st, 2007 to December 31st, 2017 conducted in Australia. Seven variable selection methods were used to identify the most important independent variables included in the model. Predictive models were developed using: survival tree, random survival forest, survival support vector machine and Cox proportional regression. The models were trained using 70% of the data and validated using the rest of the data (30%). The model with best discriminatory power, assessed using concordance index (C-index) was chosen as the best model.

Results
Two models, developed using cox regression and random survival forest, had the highest C-index (0.67) in discriminating death-censored graft failure. The best fitting Cox model used seven independent variables and showed moderate level of prediction accuracy (calibration). This model was able to discriminate the extreme categories of graft failure risk (Good vs Poor) with good discriminative power (C-index=0.73). Discrimination between other groups was moderate (C-index>0.6).

Implications
Our new index to predict the risk of graft failure demonstrated adequate potential to make pre-transplantation predictions about which recipient(s) will gain the greatest longevity from an available donated kidney.

Using administrative and clinical databases to determine the health service utilisation and quality of death of decedents in a tertiary teaching hospital

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Background

The number of deaths in Australia will double in the next 40 years, and understanding health service utilisation (HSU) at the end of life is essential in planning for health service delivery.

Population

Decedents in a tertiary Australian hospital.

Methods

We conducted a retrospective review of routinely collected electronic clinical, administrative (Activity Based Management Portal by New South Wales Health) and quality of death (Death Screening Tool by Clinical Excellence Commission) data of between 2018-19 to compare demographic, health service utilisation, cost and quality of care data between patients who did and did not have receive specialist palliative care (PC).

Results

Of the 1079 decedents, 731 (68%) were seen by PC. Patients who were seen by PC were more likely to be: older (PC: mean 75 years SD 14, no PC: mean 72 years SD 18, p=0.001), separated/widowed/divorced versus single (p=0.022), born overseas versus local (p<0.001), come from home/other hospital versus nursing home(p=0.022), less disadvantaged (p=0.001),within catchment area(p<0.001), and have cancer versus non-cancer($\chi2$ (1,N=1079)=213.8, p<0.001, Odds Ratio 14.48, 95% Confidence Interval 9.46-22.15). .

Although no significant statistical difference was found between the PC and no PC groups in median length of stay (11 vs 6 days), the median cost of the terminal admission ($16,024 vs $18,773, p<0.001) was significantly cheaper than the no PC group.

Patients in PC group were more likely to have a resuscitation plan (OR, 30.35 95% CI 15.9-57.60), be involved in decision-making (OR 4.62, 95%CI 3.39-6.29) and have their discomfort or distressed managed (OR4.82 95% CI 1.14-20.31) compared to the no PC group.

Key message

In this study, there were differences in demographics, costs and some indicators of quality of death between the PC and no PC group. Further studies to identify who may or may not benefit from PC may assist with service planning.

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Clinical registry participation and reporting in NSW hospitals. Does data collection influence quality improvement activities and what are clinicians' training needs?

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Background

Clinical registry participation is a measure of healthcare quality. Registries are recognised as a valuable source of high-quality data with the ability to improve patient outcomes. However, local use of registry data to inform quality improvement initiatives is less visible.

Objective

To identify participation in clinical registries; determine if registry data inform local quality improvement initiatives; identify registry participation enablers; and to describe clinicians' educational needs to improve the use of registry data to drive practice change.

Setting

Seven hospitals in New South Wales, Australia

Method

A cross sectional self-administered survey was distributed to staff coordinating registries between November 2019 and March 2020. Eligible registries were international/ national and state-based, clinical condition/disease-specific and device/product registries. Drug registries, clinical trial and research study data, time-limited clinical audits and point prevalence data were excluded.

Results

Response rate was 70% (97/139). Respondents contributed data to 46 eligible registries. Registry reports were most often received by nurses (61%) and infrequently by hospital executives (8.4%). Almost half used registry data 'always' or 'often' to influence practice improvement (48%) and clinical pathways (49%). Protected time for data collection (87%) and benchmarking (79%) were 'very likely' or 'likely' to promote continued participation. Over half 'strongly agreed' or 'agreed' that clinical practice improvement training (79%) and evidence-practice gap identification (77%) would optimize use of registry data.

Implications

Registry data were generally only visible to local speciality units and less commonly used to inform quality improvement. Use of registry data to improve quality of care needs to be embedded in hospital systems to reduce data collection burden and ensure participation in clinical registries are seen as worthwhile. Centralised on-going registry funding, accessible and transparent integrated information systems combined with data informed improvement science education could be first steps to promote quality data-driven clinical improvement initiatives.

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Not all readability scores are equal: assessment of the variability and accuracy of readability sores across online calculators and formulas.

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Introduction

Readability assessment is the most common approach for evaluating the health literacy demands of written health information. However, there are no uniform guidelines for conducting and reporting readability analyses. Readability scores can vary by up to five reading grades across formulas. They may also vary depending on the online calculator used and subjective decisions about how to prepare the text for analyses. This study aimed to quantify the variability of readability scores, assess the effect of text preparation, and to assess the agreement of online calculated scores with the reference standard (hand calculated scores).

Method

Two readability scores for ten samples of text were obtained by each calculator: one using unedited text and one in which text was prepared (e.g., by removing incomplete sentences). We reported the Simple Measure of Gobbledygook (SMOG), Flesch Kincaid Grade Level (FKGL) and the Automated Readability Index (ARI). We used Bland-Altman plots to assess the agreement of online readability scores with the reference standard.

Results

We identified eight online calculators. There were 16 combinations of calculator and formula (4 for SMOG, 6 for FKGL and 6 for ARI). Across the online calculators, the same text produced scores that varied by up to 12.9 grade reading levels even when the same formula was used. Text preparation markedly decreased this variability between online calculators (range: 2.1 grade levels). SMOG index scores from two calculators, and FKGL scores from one calculator showed good agreement with the reference standard. The remaining calculators showed poor agreement with the reference standard.

Implications

Readability scores are inconsistent and often inaccurate. There is a need for more comprehensive and accessible guidelines for conducting and reporting on readability studies. Those evaluating written health information may consider complementing readability assessment with other tools, especially when the text is largely fragmented.

The impact of making seclusion and restraint data visible: Innovation, collaboration and change in mental health care

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Introduction

Restrictive practices in care settings include any interventions that restrict a person’s rights or freedom to move. Two examples are seclusion (confinement alone in a room or area where free exit is prevented) and restraint (freedom of movement is restricted by physical or mechanical means). Seclusion and restraint are important safety and quality aspects of health service performance and recognised by the RANZCP as practices that should be minimised and, where possible, eliminated.

Method

There have been two important data innovations for reporting on seclusion and restraint in Australian public mental health services. The first was the 2015 establishment of a nationally agreed data collection and subsequent public reporting. The second was the 2018 addition of hospital-level reporting of seclusion and restraint use. Both advancements are the result of significant commitment, collaboration and investment from Australia’s Chief Psychiatrists, government health departments, and state/territory public mental health services.

Results

From the first year of data to 2020–21, the national seclusion rate in acute mental health hospital services reduced from 13.9 events per 1,000 bed days in 2009–10 to 7.3; restraint rates changed from 1.7 (mechanical restraint) and 11.2 (physical restraint) in 2015–16 to 0.7 and 11.6 respectively. The public release of comparative national data at state/territory and hospital levels has been acknowledged as a key driver for quality improvement initiatives.

Key message

The development and public reporting of national data on seclusion and restraint practices in Australian public mental health services is an innovation made possible through ongoing coordinated efforts. While the collection does not include patient demographics or diagnoses, data transparency has enabled benchmarking between services and states/territories and contributed to reductions in these practices over time – representing a real change for patients of public mental health hospitals.

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Analysing the temporal trends in medical device implants among Australian population, 2009–2019: Evidence from a national database

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Background

An extensive body of literature has conducted analysis of trends of medical device implants at national and cross-country level. However, those analyses focused on either a particular medical procedure or total procedures conducted on particular anatomical sites. Given this backdrop, this study aims to identify trends in use of implantable medical device in the general Australian adult population over the past 10 years.

Population

A temporal trend analysis conducted to explore the shifts in major categories of medical device implants among Australian population.

Methods

We calculated the overall linear growth of selected procedures over the period 2008-09 to 2018-19. We examined the change in the frequency of device implants by calculating the relative ratio with 95% confidence interval. We employed Chi-square test and fitted regression estimates using Newey-West robust variance estimator to examine whether there was a linear trend in the procedure volume for each medical device.

Results

The growth in the volume of some procedures outpaced other types of implants and increase in the Australian adult population. The largest growth was in knee arthroplasty with growth of 85% over 10 years and a cumulative annual growth rate of 6%, followed by replacement of heart valve, incisional hernia repair with mesh and hip arthroplasty. In contrast to other types of implants, the rate of gastric banding decreased.

Implications

The findings from the current study, showing a large increase in use of implantable medical devices, are important in future health care planning and allocation of resources for the delivery of necessary health care to patients in Australia.

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Validation of “arrival by ambulance” in the Australian Stroke Clinical Registry: state-wide data linkage study

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Background

We have linked data from Ambulance Victoria (AV), Victorian Emergency Minimum Dataset (VEMD) and the Australian Stroke Clinical Registry (AuSCR) to identify gaps in the continuum of stroke care. Merging data from multiple sources also provides the opportunity to verify data quality for similar variables across the different sources. Our primary aim was to verify “arrival by ambulance” in the AuSCR and assess the quality of data.

Method

Data for patients from the AuSCR with stroke or transient ischaemic attack admitted to Victorian hospitals (January 2015 - October 2017) were linked to AV and VEMD. Person-level data were matched using personal identifiers and probabilistic iterative methods. The AuSCR provided the inception cohort for the study. Patients were excluded if they experienced a stroke while in hospital for another condition or were transferred from another hospital. The AV dataset was the reference standard for use of ambulance services.

Results

There were 7,373 records for 6,649 patients in the AuSCR available for merging to the 6,001 records in the AV dataset. From these datasets, 4,569 (62%) records were successfully linked between AV and AuSCR datasets. There were 743 unmatched records whereby arrival by ambulance was positive in the AuSCR, but there was no record in the AV dataset. The VEMD dataset was used to verify 743 cases in the AuSCR and there were 453 records with reported arrival to hospital by road ambulance. These records were submitted to AV for a manual clerical check (additional 148 episodes of care for patients with stroke were confirmed as arrival by ambulance). The final AV-AuSCR-VEMD dataset included 4,717 records (4,287 patients).

Implication

Cross-referencing between the different sources of data we have been able to verify cases and improve the reliability of cases that used an ambulance in the AuSCR.

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What strategies can we use to optimise vaccine uptake for people who are missing out on COVID-19 vaccines in Australia?

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Background

Vaccination is a key public health measure protecting people across the world from COVID-19. Case rates and death rates are higher amongst unvaccinated people than for those who are fully or partially vaccinated against COVID-19. It is critical to optimise COVID-19 vaccination uptake in the community.

Objective

A rapid review of the international literature to identify population groups who were slow or hesitant to receive COVID-19 vaccinations, and strategies that had been successfully implemented to increase COVID-19 vaccine uptake in these often hard to reach groups.

Findings

Substantial disparities in COVID-19 vaccination uptake have been observed internationally. Evidence indicates that COVID-19 vaccination rates are lower for people with lower education levels, those from lower socioeconomic groups, among young people and in people living in regional and rural areas. Notably, lower vaccination rates have been observed in ethnically and racially diverse groups in the UK, Canada, the USA, and Australia. In the UK, vaccination rates for people experiencing homelessness are just over half those of other eligible citizens.

Strategies that have been effective in optimising COVID-19 vaccine uptake in the community prioritise: 1. collaboration and trust, 2. communication & information, 3. countering misinformation, 4. supporting people to shift from uncertain to vaccinated, and 5. improving access to vaccines. They also include the use of mandates and incentives.

Key Messages

- Strategies that have effectively increased COVID-19 vaccine uptake prioritise direct engagement with community members and developing trust and trustworthiness.
- Countering misinformation and the associated threat to public health requires mass media campaigns and targeted, collaborative education programs.
- Primary care providers are perfectly placed to take the time that people need to shift from uncertain to becoming vaccinated.

Family experiences and perceptions of intensive care and communication during the COVID 19 pandemic

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Introduction

Families play a pivotal role, providing emotional support, surrogate decision-making and patient advocacy for hospitalised patients. In March 2020, during the COVID-19 pandemic, hospital visiting was severely curtailed to limit the spread of infection, significantly challenging family participation in patient care and recovery in the intensive care unit (ICU). This study explored the experiences of ICU families to understand the perceived impact of the restrictions on their role.

Method

This qualitative study used telephone interviews, conducted in May-December 2020, with 20 family members of patients in the ICU of a major teaching hospital in Melbourne, Australia. Data were audio recorded, transcribed verbatim and thematically analysed.

Findings

Three major themes were found.

1) Impact of visiting restrictions

The severe visiting restrictions caused intense distress for some families including children who were unable to visit a critically ill parent. It was especially difficult for rural families who were many hours from the hospital and subject to the same restrictions.

2) Family experiences of communication

Communication between families and staff was by phone or telehealth. Every contact was highly valued by families. Frequency of communication was variable and dependent on individual staff priorities. Restrictions were not reported to impact family involvement in decision-making.

3) Care and support:

All participants reported satisfaction with the care their relative received in ICU. Inflexible visiting restrictions were highly criticised by participants.

Key message

Extreme distress requires a compassionate response. However, during the pandemic when infection control measures used to limit the spread of infection took precedence, person-centred care came under threat. The primary reason for restricting visitors was to limit the spread of the virus to vulnerable patients and essential staff. Unfortunately there were unintended consequences for family and patients, which must be addressed. Individual circumstances must be considered in order to maintain family-centred care.

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"Would you like fries with that?" A novel drive-through approach to vaccination of children and young people with neurodevelopmental diversity.

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Introduction/background

Comorbidities associated with neurodevelopmental disability are risk factors for poor outcomes of COVID-19, especially in children. COVID-19 vaccination in this cohort is particularly important. Children/young people with severe neurodevelopmental disability pose a significant challenge to vaccine service providers.

Population/setting

The COVID-19 vaccination clinic of a quaternary children's hospital in Queensland, Australia was inundated with enquiries about vaccinating children/young people with neurodevelopmental disorders. This population had specific disability support needs requiring adjustment to standard vaccination models. We implemented a novel, individualised approach to facilitate safe and successful vaccination for this cohort.

Method

To minimise triggering factors and provide the child/young person with a secure environment with reduced lead-in time to vaccination, drive-through vaccination clinics were trialled. A multidisciplinary team conducted in-depth assessment and created individualised plans to meet specific disability needs of clients. Carers identified successful calming and coping strategies with a "Game Plan" and contingencies were instigated to mitigate risk and prepare for unexpected situations. Each encounter was evaluated to identify potential improvements for future encounters and feedback was sought from carers and staff about the success of the clinics.

Results

Twenty-four children/young people have used the COVID-19 drive-through clinics to date. All were successfully vaccinated with one exception(n=23). Fifteen participants received both does of the primary course via the drive-through clinic; three second appointments are pending and four received second doses after challengign first experiences elsewhere. Feedback from carers and staff was positive.

Implications/key message

Development of drive-through clinics has positively impacted children/young people with neurodevelopmental disabilities and their families and offered some protection against severe COVID-19 disease. A paradigm shift has occurred in our approach to vaccine delivery for children/young people with special needs. Critical thinking, innovation, and prioritisation of individualised care have generated change and led to a reworking of existing processes to meet service needs.

Patient experiences with virtual care during the COVID-19 pandemic in New South Wales

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Introduction/background
The healthcare system has continued to evolve its use of virtual care in response to the COVID-19 pandemic. The Bureau of Health Information developed a Virtual Care survey and several virtual care modules to collect and report the experiences of patients who had had a virtual care encounter across several service settings including NSW hospitals, outpatient facilities and with general practitioners, and compare experiences across different patient groups.

Population/setting
Patients who attended NSW hospitals, outpatient facilities and general practices.

Method
We sampled 2,500 patients aged 18+ who had a virtual care experience through the Virtual Care Survey in 2020 and again in 2021. Sampling was stratified and weighted by key strata. Generalised linear models were used to identify the relative importance of factors such as age, rurality and previous virtual care consultations as determinants of patient experience. Differences in key care experiences were also assessed using logistic regression, adjusting for patients' characteristics.

Results/findings
Most patients had positive overall experiences of virtual care during the pandemic. Patients identified a range of benefits associated with virtual care including convenience, saving time, feeling at ease in their own home/surroundings and saving money. While most respondents said they would use virtual care again, across the different care settings, there were mixed results in terms of the ratings of virtual care versus in-person appointments. Respondents most likely to rate their virtual care experience as not as good as in-person appointments tended to be younger patients or patients with fewer virtual care appointments.

Implications/key message
Virtual care has played a key role to in health care delivery during the pandemic, and it is likely to continue to provide access to care. Most patients rated their experience of virtual care highly across different service settings however there remains room to improve patients' experiences and care coordination.

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Victorian survey of parent and guardian sentiment towards COVID-19 vaccination for 5-11 year olds

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Introduction

Australia has had one of the fastest and highest rates of COVID-19 vaccination for 5-11 year old children in the world. Yet there remains a continued focus on how to continually improve vaccination system responsiveness, information, and communication offerings. At the point when the dose one 5-11 vaccination rate was 55.6 per cent, the Victorian Department of Health launched the first statewide survey of parent/guardian sentiment.

Guided by the World Health Organisation Behavioural and Social Drivers (BeSD) Framework (1), vaccination decision-making occurs within integrated and dynamic system, whereby the beliefs, experiences and behavioural drivers influence the decision whether to get vaccinated or not.

Methods

A voluntary online survey was launched in March 2022 that explored views against the BeSD framework from the perspective of Victorian parents/guardians of children who had or had not yet received a COVID-19 Vaccination. The survey was translated into eight languages and promoted widely through social media and trusted channels including the Victorian primary schools' network and COVID-19 Ambassadors. The survey was live for two weeks with over 22,500 survey responses submitted.

Results

Results from the survey highlighted from parents/guardians differing information needs, motivations and concerns across the spectrum 5-11 year old vaccination intention. Furthermore, the survey emphasised the value of building trust and confidence and recognised the important role of trusted experts and health professionals delivering vaccination safety and effectiveness messaging.

Implications

The findings from this survey have provided the evidence base to inform how confidence, social processes, motivation and practical issues can be influenced by program intervention using strategies that support behaviour change. To our understanding, this may be first sentiment survey of its type in the world.

1. Brewer et al. 2017; WHO The BeSD expert working group. https://www.who.int/teams/immunization-vaccines-and-biologicals/essential-programme-on-immunization/demand

Allied health professionals experiences working in residential aged care during the COVID-19 pandemic: Interview and survey

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Background

Service delivery in Australian residential aged care (RAC) facilities has been impacted by the COVID-19 pandemic due to outbreaks of the virus and public health containment measures. Industry reports suggest that allied health (AH) services – which are essential to promoting resident wellbeing and function – were paused or restricted during the pandemic. These reports have not yet been explored in Australian research.

Method

A mixed methods study was conducted to examine AH experiences and service delivery in RAC before and during the pandemic. A survey of AH professionals and assistants aimed to capture characteristics of AH service delivery, as well as perceived impact of the pandemic on care quality and resident outcomes. Twenty-minute semi-structured interviews explored these views in depth. Data were collected between February-April 2022.

Results

In total 104 and 16 AH workers completed the survey and interview respectively. Most survey participants experienced a pause in service delivery during the pandemic (52%) and believed that that the pandemic negatively impacted the quality of AH care delivered to residents (79%). Responses from interview participants were classified into four themes: a sector under stress, COVID-19 as a pressure cooker event, disrupted service delivery even past the peak of COVID-19 cases, and future reform. Interview participants focused on how the pandemic heightened pre-existing perceived flaws in AH delivery such as reactive care delivered by contracted workers, low funding, and the perception that AH is not essential. Nearly all survey (95%) and interview (100%) participants believed that resident outcomes worsened during the pandemic; participants attributed this to multiple factors including facility lockdowns, staff shortages, and reduced AH and nursing service activity.

Implications

Greater support is required to minimise service disruptions in RAC enabling providers to ensure service levels and care quality can be maintained.

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Prescribing pattern of Renin-angiotensin system blocking drugs during COVID-19 pandemic

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Background

(ACEIs)/angiotensin receptor blockers (ARBs) may impair SARS-capacity CoV-2s to infect cells by upregulating angiotensin-converting enzyme 2 (ACE2), the viruss cell entrance receptor. One of the early studies that indicated the positive relationship of angiotensin receptors to COVID-19 infection was published in April 2020. This study aims to test the pattern of prescriptions for these drugs in the United Kingdom after the release of the April 2020 study.

Methods and settings

The monthly prescribing trend of ACE inhibitors, ARB inhibitors, and direct renin antagonists was investigated using primary care prescribing data in England, Wales, and Northern Ireland (NI) between April 2018 and December 2021. The total number of drugs prescriptions were manually calculated for each month and divided by the complete population of the relevant country that month. The statistical differences in of ACE inhibitors, ARB inhibitors, and direct renin antagonists prescribing rates before and after the April 2020 study were investigated using the Mann-Whitney U-test.

Results

The Renin-angiotensin system blocking drugs prescribing rate before April 2020 was similar to the rate after April 2020 in England (median difference = 0.651, p value = 0.607) and in Wales (median difference = 6.508, p value = 0.591). However, in NI, the prescribing rate was significantly lower after April 2020 (median difference = 36.136, p value = 0.002). When dealing with all three countries as a whole, there was no difference in prescribing rate after April 2020 (median difference= 0.398, p value = 0.545) (Figure 1).

Implications

There was no difference in the usage of Renin-angiotensin system blocking drugs following the April 2020 study in most parts of UK except Northern Ireland. Other research with patients level data should be conducted in order to examine the reasons why NI differs compared to other parts of UK.

COVID-19 wellbeing and support initiatives: perspectives and experiences of health service staff

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Introduction

Evidence is emerging about the psychosocial impact of the COVID-19 pandemic on health service staff. The importance of providing support for health service staff during the pandemic has been recognised by governments and health services. The aim of this study was to evaluate the staff wellbeing and support initiatives implemented during the pandemic at a major metropolitan Australian health service from the perspectives of employees.

Method

A mixed methods design (survey and interviews) was used. Staff employed at the health service were invited to complete a survey and/or participate in an interview about their awareness, utilisation including perceived barriers and enablers, level of satisfaction, and impact of the initiatives on their wellbeing.

Results

907 completed surveys were received; a response rate of 12.1%. Ten employees participated in an interview. Most survey respondents (n=747, 86.2%) were aware of the initiatives, would use them initiatives again (n=203, 78.1%), and recommend them to their colleagues (n=200, 76.9%). Barriers to use included: high workload, difficulties accessing (eg not on-site, night shift), a perception the initiatives were only for clinical staff. The most used initiatives were the daily staff briefings, wellbeing and support updates, wellness hubs, information sheets, working from home, webinars and ‘Kindness Matters’ website. Interview participants provided mostly positive feedback about the initiatives and especially liked the wellness hubs and CEO Forums but felt that communication about the initiatives could have been improved and targeted to particular staff groups.

Implications

The wellbeing and support initiatives were well used and appreciated by staff and had a positive impact on their mental and physical health and relationships with others. Staff indicated they would like many of the initiatives (with some modifications) to continue after the COVID-19 pandemic.

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Psychosocial impact of the COVID-19 pandemic on community health service staff: a cross-sectional study

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Background

The outbreak of COVID-19 is having a considerable effect on the health sector in Australia. Little is known about the impact on community health service staff who undertake various roles including education, advocacy and clinical services; and work with a range of communities including those which experience disadvantage and are culturally and linguistically diverse, many of which have been disproportionally affected by COVID-19. The aim of this project was to assess the immediate psychosocial impacts of COVID-19 on community health service staff in Victoria.

Method

Staff employed at eight community health service in Victoria, Australia, completed an anonymous online cross-sectional survey between 22 March – 7 May 2021. The survey assessed respondents' psychological wellbeing (Depression, Anxiety and Stress Scale – 21 items; Brief Resilience Scale), COVID-19 contact status, concerns related to COVID-19, and other effects of COVID-19. Space was provided for free-text comments.

Results

681 respondents completed the survey; a response rate of 21.4%. Approximately one in ten reported moderate to extremely severe symptoms of depression, anxiety and stress. Fewer years of work experience in the sector were significantly associated with higher levels of psychological distress. Respondents were mostly concerned about their family's health and infecting family members. Concerns about accessing and using personal protective equipment, redeployment, and changes to the way they delivered service to their clients/stakeholders during the pandemic were also reported. Despite their concerns, few staff had considered resigning and positive aspects of the pandemic were also described including that it had been a learning experience, having a greater appreciation of life and work, and a sense of togetherness and cooperation among staff.

Implications

Community health service staff would benefit from ongoing targeted psycho-educational, social and occupational initiatives and support which help them to manage their psychosocial concerns.

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The immediate impact of the COVID-19 pandemic on the psychological wellbeing and work and personal lives of Australian hospital clinical staff

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Background

The outbreak of COVID-19 is having a considerable effect on health services. Little is known about impact of COVID-19 on the psychological wellbeing and work and personal lives of Australian hospital clinical staff. The aim of this study was to investigate the short-term psychosocial effects of the COVID-19 pandemic on hospital clinical staff.

Method

Nurses, midwives, doctors and allied health staff at a large metropolitan tertiary health service in Melbourne, Australia, completed an anonymous online cross-sectional survey between 15 May and 10 June 2020. The survey assessed respondents' psychological wellbeing (Depression, Anxiety and Stress Scale – 21 items; DASS-21), COVID-19 contact status, concerns related to COVID-19, and other effects of COVID-19. Space was provided for free-text comments.

Results

668 respondents completed the survey (nurses/midwives, n=391; doctors, n=138; AH staff, n=139). Of these, 108 (16.28%) had direct contact with people with a COVID-19 diagnosis. Approximately one-quarter of respondents reported symptoms of psychological distress. Nurses and midwives had significantly higher anxiety scores than doctors ($p<0.001$) and AH staff ($p<0.001$). Respondents were mostly concerned about contracting COVID-19, infecting family members, and caring for patients with COVID-19. Concerns about accessing and using personal protective equipment, redeployment, and their ability to provide high quality patient care during the pandemic were also reported. Pregnant staff expressed uncertainty about the possible impact of COVID-19 on their pregnancy. Despite their concerns, few staff had considered resigning and positive aspects of the pandemic were also described.

Implications

The COVID-19 pandemic has had a considerable impact on the wellbeing and work and personal lives of hospital clinical staff, particularly nurses and midwives. Staff would benefit from targeted wellbeing and support initiatives which address their concerns and assist them to manage their work and personal lives.

Creating a Family friendly environment by embedding Health literacy strategies in a tertiary Paediatric Hospital: An organisational learning approach

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Background

Existing health services research shows education interventions promoting Health Literacy (HL) improve health outcomes, streamlines healthcare systems, optimises quality and safety of care and reduces health care expenditure. Nationally promotion and education of consumers and health workforce[2] has been prioritised however evidence relates to acquisition of HL knowledge and behaviours in adult populations[1-3]. In paediatrics, such interventions are complex and include healthcare providers, children and carers as well as parent-child interactions.

In line with NSQHS recommendations, Children's Heath Queensland Hospital and Health services have developed a health literacy framework to deliberately embed and coordinate strategies to address health literacy within systems and infrastructure in a sustainable manner[1,2]. Based on the ten attributes of health literate organisations[3], strategies are being executed across 3 horizons beginning June 2020 and ending in December 2023.

Method & Results

Organisational gap analysis against these attributes has been performed pre-implementation using the Health literate Healthcare Organization10-item questionnaire (HLHO-10)[4] and mapping of existing initiatives. Mapping and gap analysis will be repeated across horizons. Preliminary findings on change across the initial two horizons will be provided.

Implications

Improved understanding of the effectiveness specific organisational-wide strategies to advance health literacy in a paediatric context in terms of reach, uptake and impact of strategies will inform future development of HL interventions tailored to paediatric services.

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“We just support them to navigate a bad system”: a qualitative study of health literacy responsive practices of primary health care providers and organizations providing care to refugees in Australia

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The World Health Organization recently acknowledged health literacy as a critical determinant of health and a key driver of citizen empowerment and health equity in the Shanghai Declaration, which establishes a mandate for developing, implementing and monitoring strategies for strengthening health literacy in all populations. Such strategies must extend beyond a focus on the health literacy of individuals, to include strategies that reduce the demands health systems place on people, and minimise barriers to them accessing services and information. By ensuring they are health literacy responsive, health and social care organisations can empower the populations they serve. Refugees especially those from African countries have been found to be associated with very limited literacy about their own health and the Australian health care system which experts see it be complex and multifaceted. Refugees therefore require special skills and knowledge to successfully navigate and respond to the demands place on them by the complex health system. Studies suggest that some health organizations and professionals are making effort to be health literacy responsive to health users. However how the organizations and providers are doing and how multicultural health workers are assisting them to be health literacy responsive is largely unknown. This study uses in-depth knowledge to understand from the perspective of multicultural health workers and information intermediaries to understand how health literacy of African refugees can be improved.

Health literacy and cancer care coordination among patients with head and neck cancer: a prospective cohort study

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Background

Poor health literacy (HL) has been associated with worse access to health care services, higher morbidity and mortality, and lower satisfaction with care. To our knowledge, the association between HL and coordination of cancer care has not been examined in patients with head and neck cancer (HNC).

Aim

To explore the correlations between domains of patient-reported HL and experiences of cancer care coordination.

Methods

Patients who underwent treatment for HNC at one of four sites in NSW were invited to participate. Patients completed two questionnaires: 1) the Health Literacy Questionnaire® (HLQ®), a 44-item validated tool assessing HL across nine domains, and six months post-treatment, 2) the Cancer Care Coordination Questionnaire for Patients (CCCQ-P), a validated tool measuring care coordination across two domains (navigation and communication). A total score is also obtained by summing scores from the two domains. Non-parametric correlations between the CCCQ-P domain and total scores with HLQ® domains were assessed using Spearman's rank-order correlation coefficient. Linear regression was used to examine associations between patient and clinical factors with care coordination scores.

Results

From October 2018-March 2020, 97 of 131 invited patients completed the HLQ®, 79 of whom completed the CCCQ-P (65% male; mean age 64 years). All of the nine HLQ® domains were significantly positively associated with the total CCCQ-P score, and eight of the nine HLQ® domains were significantly positively associated with both the navigation and communication domains of the CCCQ-P. Almost half of patients surveyed (38/79; 48%) reported a problem meeting the financial costs of cancer. Univariable linear regression analysis found no patient or clinical factors that were associated with care coordination scores.

Conclusion

Our findings demonstrate HNC patients with higher HL report better coordination of cancer care. Health policy should focus on promoting a navigable cancer care environment for persons with low HL.

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Finding out the best way to measure paediatric health-related quality of life to ensure we are providing the best possible pharmaceuticals, technologies, and health services to our children in the future: An Australian paediatric multi-instrument comparison (P-MIC) study protocol and initial results.

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Objectives

In Australia, cost-effectiveness evidence, involving the measurement of health-related quality of life (HRQoL), is formally used to make decisions about public funding for pharmaceuticals, technologies and health services. There is a lack of sound evidence on the performance of paediatric HRQoL instruments to guide decision making. No previous P-MIC study of HRQoL instruments has been undertaken. This P-MIC study aims to compare the performance of paediatric HRQoL instruments.

Methods

This P-MIC study will collect survey data on approximately 6,100 Australian children aged 2-18 years via The Royal Children's Hospital Melbourne Australia and online Australian survey panels. Participants complete two surveys: an initial survey involving the concurrent collection of paediatric HRQoL instruments, and a short follow-up survey 4 weeks later. Children aged 7 and above will be asked to self-report their HRQoL. In addition to a hospital and population sample, data will be collected on 400 children from nine disease groups who will also complete a disease specific HRQoL measure. To assess instrument performance across a range of characteristics, the item, domain, and total score descriptive results of the EQ-5D-Y-3L, EQ-5D-Y-5L, CHU9D, PedsQL, HUI, AQoL-6D, and PROMIS-25 were assessed by child age, report type, health status, and recruitment method. Additionally, the known group and convergent validity of instruments were assessed.

Results

This study will generate new evidence on the psychometric performance of currently available paediatric HRQoL instruments. At the time of abstract re-submission, 731 and 4,718 participants have been completed an initial survey from the hospital and online samples, respectively. The P-MIC protocol, participant characteristics, and initial results on the full dataset will be presented.

Conclusion

Evidence from the P-MIC study will improve and inform users’ choice of paediatric HRQoL instrument around the world, ensuring appropriate evidence to provide the best possible health resourcing to our children in the future.

Do private inpatients have higher rates of low value care than public inpatients in NSW public hospitals?

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Introduction

Privately funded hospitalisations in Australian public hospitals are increasing. Concerns have been raised about differential quality of care between private and public patients. Private health insurance may motivate low-value care (LVC) due to financial incentives for doctors and hospitals to treat patients with private insurance in public hospitals. Here, we assessed variation in rates of LV services in Australian public hospitals according to patient funding status.

Methods

We performed a retrospective analysis of New South Wales public hospital data from January 2013 to June 2018. We measured hospital-specific rates of five LV services among eligible patients for whom the service would be LVC (based on diagnoses and concomitant procedures). For each LV service, we compared rates within each public hospital by patient funding status (private or public), descriptively and using multi-level models.

Results

Overall rates of LVC varied considerably between services, with the lowest rate for hyperbaric oxygen therapy and the highest for vertebroplasty (0.3 and 30.8 procedures per 1,000 eligible patients, respectively). We found a large variation in LVC rates between hospitals, and a small number had higher rates of LVC among private than public patients. Despite this variation, the magnitude of the effect of patients' funding status was similar between hospitals. We did not find a consistent association between patient funding status and LV services: private patients had lower but non-statistically significant rates of knee arthroscopic debridement than public patients (aOR:0.56) and higher but non-significant rates of low value vertebroplasty for osteoporotic spinal fractures (aOR:1.08), hyperbaric oxygen therapy (aOR:1.53) and oophorectomy (aOR:1.77).

Implications

Reducing LVC requires investigating health system factors at the local-level. Private patient funding may be one of the factors contributing to LVC in some public hospitals, but it was not consistently associated with higher rates of the five LV services measured.

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Cost effectiveness of the Victorian Healthy Homes Program

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Background
The Victorian Healthy Homes Program (VHHP) evaluates the impacts of home energy upgrades for vulnerable households through a randomised controlled trial. It is the first-of-its-kind in Australia, in which the evaluation allows for data collected at household & individual levels to understand the link between energy efficiency & warmth upgrades in low-income households. We calculate the costs and cost effectiveness of the VHHP for the primary outcome of change in indoor mean temperature over winter.

Methods
The economic evaluation is both a cost-consequence analysis (CCA) and a cost-effectiveness analysis (CEA). We also perform a cost benefit analysis and explore how long it will take the VHHP to be cost saving when considering the costs and cost savings, both health and energy.

Results
Results are presented for both intention-to-treat (ITT) and per protocol (PP) analyses. The effectiveness in the ITT is 0.32C (95% CI: 0.037,0.59). The average ICER is $15,232 per 1C increase in mean indoor temperature. Mean morning temperature had an ICER of $10,307 for every 1C increase in mean indoor temperature and cold hours avoided an ICER of $7,207 for every cold hour avoided. The oneway sensitivity analysis on upgrades costs ($2229) as opposed to full program costs ($4810) made the program much more cost effective with an ICER of $4835 per 1C increase in mean indoor temperature (ITT). When considering both health and energy savings the program is cost neutral after 7 years. When only looking at upgrade costs the program pay for itself in under 3 years. Most savings results from health benefits.

Key message
Low cost home energy upgrade programs are an important public health intervention that provide both health and energy savings and improve the quality of life of residents. They pay for themselves in a short time period. Further investment is worthwhile.

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The Advance Project: Healthcare Use and Costs of Advance Care Planning in Australian Primary Care.

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Introduction

Almost half of Australians will be incapable of making decisions for themselves when end-of-life care is required. Advance Care Planning (ACP) is a voluntary process; individuals are empowered to prepare for their future healthcare needs and wishes if they cannot make decisions due to cognitive impairment.

Methods

The Advance program trained GPNs and GPs to facilitate ACP conversations with those aged 75 years and above or with a chronic disease in Australian primary care practices. The costs and resources of the program were collected using a bottom-up micro-costing approach from an Australian health system perspective and reported in 2017 AU$.

Results

Forty-one qualitative interviews and 671 survey responses were received from 1,845 staff. Costs for training 536 GPNs were $226,611 ($1,351 per GPN). Commonly used Medicare Benefits Schedule (MBS) numbers for ACP consultations included: GP consultations ≤20 or ≥40 minutes (items 23 and 36); 75+ health checks 45-60 minutes (705); and GP health assessment ≥60 minutes (707). Average patient costs for 75+ health assessments were $340, and $372 for chronic disease management. ACP activities without clear reimbursement included identification, screening and assessment of ACP and palliative care; discussions between GPNs and GPs regarding the identification of patients, progress and results; additional time for complex cases; and administration time for practice managers.

Key message

Advance care planning in primary care is feasible and cost-effective for those aged 75 years and above or with a chronic disease.

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The impact of childhood cochlear implantation on carers' employment status is dependent on socio-economic status

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Introduction
The carers of children with disability, especially mothers, typically have poorer labour market outcomes than carers of typically developing children. However, it is unclear whether interventions for children's disability have an effect on their carers' employment choices.

Method
We investigated the above hypothesis using unique panel data of Australian children with hearing loss.

Results
We found that the primary carers (typically the mother) were more likely to return to work if their children received cochlear implants. Also, the effect for primary carers from a lower socio-economic status was stronger than their counterparts having higher socio-economic status.

Implications
These results are consistent with the notion that economic evaluations of healthcare interventions on children should include both direct effects on the child's well-being and indirect effects experienced by their carers.

Keywords: Disability; hearing loss; cochlear implant; employment; labour force participation; productivity impacts; carers, children.

Medical and pharmaceutical costs associated with cognitive impairment in old age

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Background

The increased prevalence of dementia and mild cognitive impairment (MCI) due to population ageing poses potential challenges to Australia's healthcare system. Understanding current treatment patterns and health care engagement for people with cognitive impairment assists in projecting future demand and determining potential service gaps in terms of current recommended treatment protocols. The Macquarie University Centre for the Health Economy (MUCHE) in collaboration with the UNSW Centre for Healthy Brain Ageing (CHeBA) is conducting a study to estimate the medical and pharmaceutical costs associated with cognitive impairment in older Australians.

Method

The study linked panel data on community-dwelling individuals aged 70-90 years old (N=1,037 at baseline) from the Sydney Memory and Ageing Study to Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Schedule (PBS) utilisation data. Two-part econometric models were used to estimate the probability of incurring costs and the intensity of use (expenditure amounts) for individuals with cognitive impairment.

Findings

The preliminary results suggest those with a mild level of impairment or diagnosed MCI are significantly less likely to incur MBS costs. Conversely, those with severe impairment or diagnosed dementia are significantly more likely to incur certain MBS costs (professional attendances) and PBS costs (nervous system and sensory system drugs) and incur higher annual expenditures for these categories. Subgroup analyses indicate that those with non-amnestic MCI have a significantly decreased likelihood of incurring MBS costs, but this pattern is not evident for amnestic MCI. Those with MCI living alone, or whose informal carers did not help them with making medical decisions also had a significantly decreased likelihood of incurring MBS costs.

Key message

Mildly cognitively impaired individuals with less-noticeable symptoms and less support available may be facing MBS service gaps, which potentially has implications for disease progression/worsening.

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Methodological Issues in Economic Evaluations of a Tax on Sugar-Sweetened Beverages (SSB) as an Anti-Obesity Intervention – A Systematic Review

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Introduction

One of the policies advocated to tackle obesity is a tax on sugar-sweetened beverages (SSB). A cost-effectiveness analysis is a popular method used to measure the costs and benefits of such a policy. However, to date systematic reviews of these evaluations have been limited.

Methods

A systematic review was conducted to appraise economic evaluations of a tax on SSB as an anti-obesity intervention. The search of the literature was performed in February 2021. Criteria for assessment were developed to align with previously identified methodological issues in evaluations of public health interventions and key issues in the evidence for SSB taxes. These broadly include areas of effects, costs, outcomes, and equity.

Results

Fourteen modelling-based evaluations were identified by the search and reviewed. They found that a tax on SSB was effective in terms of reducing obesity and was a cost saving intervention for a government to implement. However, the advantages of the tax were inflated due to the approaches used in the area of the effects used in the evaluations. These primarily include overestimating the impact of SSB consumption on weight (8/14, 57%) and neglecting the substitution effect where SSB consumers could switch to other similar products (9/14, 64%). More than half of the evaluations (8/14; 57%) provided equity analyses but their findings were subject to interpretation. Consideration of non-health consequences in the evaluations was limited.

Conclusion

There are several methodological issues in existing economic evaluations examining the impact of SSB taxes. As the evaluations were limited in terms of the information presented, caution is required in applying their findings. A simple message promising that an SSB tax would be a single best cost-effective intervention to prevent obesity and improve inequity should be avoided. Awareness for more appreciation of the full details of the evidence is needed for future evaluations.

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What policies and/or interventions work to reduce cost barriers to primary healthcare in high-income countries? A systematic literature review.

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Background

There are significant cost barriers to accessing primary healthcare in Aotearoa, New Zealand. This is experienced particularly among structurally disadvantaged populations, including Māori (the indigenous people of Aotearoa, New Zealand). Aotearoa, New Zealand, has implemented various policies to mitigate the impact of cost barriers, such as Very Low-Cost Access (VLCA) practices and reduced co-payments for Community Services Card (CSC) holders. However, reported cost barriers to primary healthcare remain persistent. This systematic literature review aims to analyze what policies and/or interventions work to reduce cost barriers to primary healthcare in high-income countries in both national and international literature.

Population setting

All people accessing primary healthcare in high-income countries as outlined by The World Bank.

Method

Three bibliographic databases (Dimensions, Embase and Medline Web of Science) and grey literature were searched. Reference lists of the selected articles were further hand-searched. Two authors independently assessed publications for eligibility for inclusion, and discrepancies were examined by the third and fourth authors. Study titles and abstracts were first screened according to the following eligibility criteria: (a) articles were published in English (b) from 2000 onwards, (c) articles reported on outcomes of interventions that aimed to reduce cost barriers of primary healthcare (d) in high-income countries. Relevant data were then extracted and analyzed into narrative themes.

Results

A total of 18,135 articles were retrieved from the initial database search. The work of this review is ongoing, and the results will be presented at the conference.

Implications

The implications of this review will be used to inform the Aotearoa, New Zealand government of successful policies and/or interventions that have been implemented in different high-income countries to reduce cost barriers in primary healthcare. Recommendations from this review will be formatted into a policy brief to forward to the Ministry of Health, Māori Health Authority and HealthNZ.

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Cost savings to patients and the health system through provision of head and neck surgery outpatient services in regional NSW

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Introduction

Outreach services have the potential to address inequitable access to specialist medical care in regional Australia. The study aim was to estimate potential cost savings to patients and the health system by providing regional outreach services in place of requiring patients to travel to Sydney for routine appointments.

Population/Setting

Patients attending one of three head and neck surgery outreach clinics offered through the Chris O’Brien Lifehouse in regional NSW (Nowra, Orange, and Port Macquarie).

Methods

A four-year retrospective audit of the clinics was conducted. Under various travel mode assumptions, direct costs of transport and accommodation were estimated based on distance between i) the patient’s residence and the patient’s regional clinic and ii) the patient’s regional clinic and the Chris O’Brien Lifehouse in Sydney. Reimbursement through government travel support schemes were also estimated. Results are presented as descriptive statistics and costs reported in 2022 Australian dollars.

Results

A total of 657 patients attended the three clinics over the study period accounting for 1,981 appointments. Depending on mode of travel, median cost of return travel to Sydney per appointment ranged from $379 to $739 per patient, and government reimbursements ranged from $182 to $279. In contrast, cost of return travel to local regional clinics ranged from $28 to $163 per appointment. Provision of regional clinics was estimated to save patients a median of $285 per trip and avoided government reimbursements of $215 per trip, totalling $570,000 and $335,000 respectively over the four-year audit.

Implications

Regional outreach clinics result in significant cost savings by avoiding long-distance travel and accommodation. However, savings were likely underestimated as time lost from work or other usual activities and carer travel costs were not accounted for. Increased government investment in outreach clinics could ensure sustainability of services to promote equitable access to head and neck surgical services.

Cost-effectiveness of interventions to increase utilization of kidneys from deceased donors with primary brain malignancy in an Australian setting

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Introduction

Kidneys from potential deceased donors with brain cancer are often foregone due to concerns of transmission risk to recipients. This may be due to uncertainty around donors' medical history and their absolute transmission risk, or risk-averse decision-making among clinicians. However, transmissions are rare and prolonging waiting time for recipients is harmful. Changes to organ donation policies may improve health outcomes for people waiting for a kidney transplant.

Population

Simulated cohort of 1,500 people with kidney failure waiting for a deceased donor kidney transplant in Australia.

Method

We assessed the cost-effectiveness of policies aimed at increasing utilization of these potential donors using a Markov model patient simulation (Figure 1) to estimate costs and consequences from a payer perspective (Australian government) using linked transplant registry data. We estimated costs and quality-adjusted life-years (QALYs) from three interventions: decision support for clinicians in assessing donor risk, improved data accuracy with real-time data-linkage to hospital records and cancer registries, and increased risk-tolerance to allow intermediate-risk donors.

Results

Decision support increased donation 0.3% with a 2% transmission rate and was dominant (improved QALYs and cost-saving) in 56% of simulations (Figure 2). Real-time data-linkage increased donation 0.6% with 1.8% transmissions and was dominant in 57% of simulations. Increasing risk tolerance increased donation by 2.1% with 3.3% transmissions and was dominant in 75% of simulations (mean +10.0 QALYs and $1.2m ($904k USD) cost-savings).

Implications

Accepting intermediate-risk donors with brain cancer is likely to improve patient outcomes and reduce overall healthcare expenditure.

Facilitating Local Economic Analyses (FLEA): How economic evaluation can be used to inform local health service decisions

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Introduction

Health service delivery models are a way of organising the effective delivery of health care. Economic evaluation can be used to estimate the expected costs and benefits of alternative models, but are infrequently used at a local level. Useful evaluations need to integrate published evidence with local data and local knowledge on patient populations and organisational context. Health economists have collaborated with a local health service (Southern Adelaide Local Health Network (SALHN)) to support improved use of data and evidence to inform local decision making regarding funding of health service delivery models.

Methods

The local evaluation process involved: (1) formation of a clinical working group to interpret local data and advise on the applicability, acceptability and translation of research evidence; (2) root cause analysis using clinical audit and routinely collected data to determine current incidence and causes; (3) literature review to summarise the evidence on relevant interventions; (4) facilitated review of root cause analysis and literature review findings by the working group to select potential interventions for evaluation; (5) expert elicitation to adjust the published intervention effect estimates for the local setting; (6) economic analyses of selected interventions to estimate benefits and costs in the local setting; and (7) presentation of the economic analyses to the working group to inform recommendations regarding interventions for implementation.

Results

Based on SALHN priorities two case studies on hospital-acquired complications (HACs) were selected (hypoglycaemia; urinary tract infections). Resources developed include: clinical audit tools and analysis files, literature reviews with templates to present summaries to the working group, an elicitation framework, and example economic analyses with templates for applying intervention effects to local data.

Implications

The local economic evaluation process was successfully applied for the two case studies. The resources developed can be used by other local health services to facilitate their decision making.

Economic Impact of Bariatric Surgery in Australia: Evidence from a Large Population-based Longitudinal Cohort

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Background

To provide real-world evidence regarding the economic impacts of bariatric surgery from a large Australian cohort.

Methods and setting

In this longitudinal population-based cohort study based in the state of New South Wales, Australia, 1,157 subjects undergoing bariatric surgery (the operated group) were drawn from the Sax Institute's 45 and Up Study (between 2006 to 2009) and exactly matched with 1,157 non-operated subjects. Data sources included the baseline and follow-up surveys and linked national administrative datasets. Linear mixed-effects model was used to predict the cost trajectory 8 years before and 8 years after surgery, and difference-in-differences approach was chosen to evaluate surgery's economic impacts. Sensitivity analysis by including an approximation of indirect costs and subgroup analysis by surgery type were performed.

Results

The average age of the matched cohort was 58.1±5.8 years and 77% were female. The direct costs in both the operated and non-operated group increased over time. Costs in the operated group peaked during the surgery year, and then substantially decreased towards those of the non-operated group from the second year after bariatric surgery. When estimated indirect costs were modelled, the combined costs for the operated group were lower than those for the non-operated group from the second year after surgery. Whilst surgery's economic benefits increased over longer horizons, cumulative cost-savings were not achieved during the study period even after the consideration of indirect costs. Subgroup analysis revealed that sleeve gastrectomy is the lowest cost surgical option.

Implications

The short-term higher costs in the year of surgery were the main driver of inter-group cost differences. The cost differences between those with or without bariatric surgery decreased over longer time horizons, particularly when indirect costs were considered. Future longer-term studies including younger Australians from multiple locations, and a comprehensive range of obesity-related costs are needed.

Barriers and facilitators to implementation of priority setting and resource allocation tools: A systematic review

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Background
Tools systematizing priority setting and resource allocation are seldom implemented. The objective was to conduct a systematic review of studies reporting barriers and facilitators for implementing priority setting and resource allocation tools in the hospital setting.

Methods
The Cochrane methods were used. Inclusion criteria were case reports of hospital-related priority setting tools of high-income countries after the year 2000, and reporting barriers or facilitators for implementation. Medline, Embase, CINAHL and Econlit were searched. Barriers and facilitators were classified using the Consolidated Framework for Implementation Research (CFIR). Case reports were assessed for fidelity.

Results
The search yielded 6,066 articles. After screening titles and abstracts, 248 studies were assessed for full-text review and 30 studies reported in 38 papers were included. Eighteen studies reported Program budgeting and marginal analysis (PBMA), thirteen multi-criteria decision analysis (MCDA), and six Health Technology Assessment (HTA) related frameworks. Additionally, two studies reported an ad hoc tool. Barriers and facilitators were reported across all domains of the CFIR. The 'inner setting' domain had 25 studies reporting barriers and 16 facilitators, the 'process' domain had 12 studies reporting barriers and 15 facilitators, the 'intervention characteristics' domain had 14 studies reporting barriers and 20 facilitators, the 'outer setting' domain had 11 studies reporting barriers and ten facilitators, and the 'characteristics of individuals' domain had ten studies reporting barriers and two studies reporting facilitators. PBMA studies satisfied between 86% and 10% of the fidelity criteria. For MCDA, it varied between 36% and 100%. For HTA, it was from 27% to 80%.

Implications
Studies showed that barriers and facilitators in every CFIR domain. However, the 'inner setting' domain predominated, shedding light on organizations' readiness and adaptability for implementation. Even with high fidelity, uptake was rarely reported. Strategies to overcome barriers and promote facilitators could assist these tools' implementation in real practice.

Patient Preferences for Total Knee Replacement Surgery in Australia: A Discrete Choice Experiment

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Background

Knee osteoarthritis (OA) causes joint pain and stiffness, leading to reduced function and poor quality of life for patients. It is estimated that 1 in 11 Australians have OA, with a 58% increase expected in the next decade due to population ageing and rising obesity rates. Total Knee Replacement (TKR) is a highly effective and cost-effective treatment for knee OA that can improve quality of life by reducing pain, joint deformity, and loss of function. Given the high demand for TKR and long waiting times, TKR surgery for treating knee OA should align with patient preferences and eligibility criteria to deliver patient-centered care and value-based healthcare. This project aims to conduct a discrete choice experiment (DCE) to elicit patient preferences for the factors associated with the patient care pathway for TKR surgery in Australia. As there has been an increasing number of self-funded patients due to the falling take-up of private health insurance, we also aim to estimate their willingness to pay for desirable features of the patient care pathway.

Methods and design

DCE attributes will be identified and selected using a multi-stage process developed by the ISPOR. With the generated attributes (and their levels), an experimental design will be used to construct 10-12 scenarios that present two hypothetical care pathways with the same attributes but different levels.

Results

Preliminary results for the literature review and focus group discussion will be available to present at the time of the conference in November 2022.

Implications

This is the first study to quantify Australian patients' preference and trade-offs between factors towards TKR surgery, using a discrete choice experiment. TKR treatment should align with patient preferences and eligibility criteria to better deliver patient-centered care. This study will provide evidence and insight into the demand-side of this specific surgery.

Development of quality criteria for commissioning obesity programs and services to increase value for consumers

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Introduction

The Western Australian Healthy Weight Action Plan (2019-2024) was developed by the WA Department of Health to create a roadmap for sustainable change to support families at-risk of and those with overweight/obesity. It is a joint initiative of WA Health, WA Primary Health Alliance and the Health Consumers' Council, and one step in a coordinated approach across health to respond to the complex causes of overweight/obesity.

Decision-making for health commissioning, when applied to the complex issue of overweight/obesity, requires transparency, flexibility and robustness to integrate social and ethical values with scientific evidence. Although research on health commissioning is available internationally and growing within the Australian context, scant evidence was identified of the existence of quality standards for effective commissioning of overweight/obesity-related programs/services. Curtin University was funded to develop a set of quality criteria for use in commissioning programs/services under the WA Healthy Weight Action Plan (2019-2024).

Method

A three-stage consultation approach was employed seeking feedback from participants, validating and refining constructs. A pool of 63 representatives from the health system, services and consumers in Western Australia was compiled by the project Steering Group and invited to participate. The mixed-methods consultation involved a two-round modified Delphi technique (Round 1 n=35, Round 2 n= 31) seeking consensus on the importance of constructs for inclusion in the framework and deliberative forum (n=40) to confirm and consolidate constructs.

Findings

Common themes arose as important components for the quality criteria, with strong support for: a person-centred approach; embedded co-design approaches across the program/service lifecycle; and cross-sectoral intervention and treatment options. Overall 10 criteria were developed, underpinned by 63 indicators.

Implications

Applying the specified criterion to the commissioning process will contribute to the selection of quality programs/services that will likely have impact on: individuals' use and satisfaction with programs/services; overweight/obesity-related outcomes; and interagency collaborations.

Patient preferences for disease screening informed by genomic risk scoring: A systematic review of discrete choice experiments

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Background

Existing risk-based screening and early detection programs for chronic diseases target patients based on age and gender. The increasing availability of genomic testing presents an opportunity to further tailor programs to improve early diagnosis and detection. However, it is important to understand consumer preferences for genomic-informed risk stratified screening to enhance program design and maximise uptake.

Aim

To synthesise the literature on consumer preferences for genomic risk information for chronic disease screening.

Population/setting

Chronic disease screening

Methods

A systematic review of discrete choice experiments examining patient or general public preferences for the use of genetic or genomic risk information to inform chronic disease screening. PubMed, Embase, EconLit, and the Cochrane Library were searched, along with backward and forward citation searching. Quality appraisal was conducted with the ISPOR Conjoint Analysis checklist. (Prospero registration number: CRD42021284701).

Results

From 374 identified studies, ten were eligible for inclusion. All but three studies examined colorectal cancer, with breast and ovarian cancer also assessed. Most used general population samples who were eligible for screening based on age. Fourteen unique categories of attributes were investigated for impact on patient preferences for receiving genetic and genomic risk information. The most common influential attributes were risk of disease / prognosis, cost of the test, treatment potential, and test accuracy. Patient preferences clearly impacted uptake of genetic testing for chronic disease.

Implications

There are a lack of discrete choice experiments examining consumer preferences for genomic-risk informed screening in chronic diseases other than colorectal cancer. Given the potential for consumer preferences to strongly influence acceptance and uptake of health programs, further research into preferences for specific genomics-risk informed disease screening programs is necessary during development.

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Determining the acceptability of the EQ-5D: The consumer's perspective

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Background

Patient reported outcome measures (PROMs) capture the perspectives of consumers about their current state of health. However, routine collection is difficult, and requires an evidence-based, consumer informed approach to ensure successful implementation. We aimed to assess consumers' experiences of, and preferences for, completing the EQ-5D to determine the acceptability for routine collection from consumers' perspectives.

Methods

Surveys were conducted with consumers discharged from Community Rehabilitation and Community Health Programs at Peninsula Health following the completion of the EQ-5D, a generic health related quality of life measure. Consumer perspectives were captured using survey items that elicited information on: 1) consumer experiences of completing the EQ-5D; 2) how well the EQ-5D reflected their health; and 3) consumer preferences for how and when PROMs should be administered. Multiple choice items were analysed descriptively. Qualitative responses were analysed using content analysis.

Results

From 156 consumer surveys, 143 (91%) reported they would like to continue using the EQ-5D to provide information on their health. In total, 86% of consumers reported that EQ-5D completion made them feel more in control of their health care and 85% reported that EQ-5D completion improved communication with their therapist. Telephone was the preferred method of administration following discharge (n=127, 81.9%). Electronic modes of administration were preferred when completed in the clinic (n=84, 54%). Over 70% (n= 115) of consumers believed that completing the EQ-5D at the time of discharge from their inpatient stay would benefit their care. The most commonly reported aspects of participants health not captured by the EQ-5D items were fatigue, medication side effects, sleeping issues, reduced strength, unintended weight loss and memory problems.

Key Message

Consumers viewed the EQ-5D as a useful and acceptable PROM with potential for incorporation into routine healthcare. However, not capture all aspects of health considered important to consumers was captured.

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Do patient engagement interventions work for all patients? A systematic review and realist synthesis of interventions to enhance patient safety.

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Background

Patients are increasingly engaged in various aspects of their health care and treatment, including ensuring safety at the point of care. Lack of evidence exists regarding the effectiveness of patient engagement strategies and their suitability for diverse patient populations. We sought to address this evidence gap by a conducting a systematic review and realist synthesis. This review established the interventions or strategies used to engage patients in safety at the point of care, explored who was engaged and determined mechanisms that impact effectiveness.

Method

A systematic review of literature published between 2010-2020 was conducted. Seven databases (CINAHL, Cochrane, Cochrane-Central, Embase, ISI Web of Science, Medline, PsycINFO) were searched to identify patient engagement interventions to increase safety at the point of care. All research designs were eligible for inclusion and two reviewers applied criteria independently to determine study eligibility and appraise quality. A narrative review and realist synthesis were conducted.

Results

Twenty-six studies describing twenty-seven patient engagement strategies were included. Definitions of ‘patient engagement’ varied, ranging from opportunities for patient engagement via staff-led consultation (9), involvement of patients (6) through to partnership with patients (12). Most papers provided descriptive detail about the development of strategies, with limited information about participant characteristics, such as cultural background or of the nature of engagement between staff and patients utilizing strategies. Mechanisms to support patient engagement in safety at the point of care included: collaborative strategy development, user-friendly strategy design, proactive messaging and agency sponsorship.

Implications

A health system that supports healthcare organisations to create an inclusive culture and foster collaboration between staff and patients is essential for patient engagement in safety at the point of care. Evidence about how patients are engaged in discussions about safety, particularly engagement of minority groups unable to engage with standard information, is required to inform practice.

Patient-Reported Outcomes in People Living with Advanced Chronic Kidney Disease: The Role of Proxies

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Background
Patient-reported outcomes (PROs) provide invaluable health information about patients that cannot be found in administrative or clinical data. When patients cannot self-report, proxies may be asked to report on behalf of patients or to assist patients with completing questionnaires. Despite frequent proxy use in fields such as palliative care, information on proxies is often limited. We examined the use of proxies, and the characteristics of patients requiring proxy assistance, as part of a study of patients with advanced chronic kidney disease (CKD) living in Tasmania.

Method
Data were from the Tasmanian CKD study, a community-based prospective cohort study of adults >18 years with stage 4 CKD (eGFR 15–29 mls/min/1.73m2) not receiving dialysis. Participants were asked to complete PRO measures including the iPOS-Renal at baseline (2010-2012) and follow-up (2016-2018). Participants completed the measures on their own (“self-report”), or received either a little or a lot of assistance (“proxy assistance”) in completing the measures. Descriptive statistics were used to compare clinical and sociodemographic characteristics of individuals by their need for assistance at baseline.

Results
Of the 134 participants who provided baseline data, 118 (88%) self-completed. Participants requiring any form of assistance (N=16) were more likely to have comorbidities than those who self-completed (56% vs 45%), less able to carry out instrumental activities of daily living such as food preparation (56% vs 91%) and more likely to be disadvantaged (50% vs 36%). However, participants were similar in terms of gender (male: 63% vs 64%).

Implications
Although the need for proxy assistance was relatively low in this cohort, participants requiring proxies differed from participants who did not on clinical and functional characteristics. It is important to collect reasons for proxy assistance and use, and carefully consider and account for systematic differences between patients who can and cannot self-report when proxies are used.

“All you need is 30 seconds”: Continuous co-design delivering innovative clinical decision support technology in primary care

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Future Health Today (FHT) is a clinical decision support software platform designed with general practice staff for use in general practice. It provides guideline concordant recommendations for patient care. Development and implementation design have been underpinned by an action research approach, whereby evaluation activities inform changes in the platform and implementation in real time.

In 2021 41 general practices commenced a 12-month cluster randomised control trial (RCT) with two arms, each acting as an active control for the other. A process evaluation was undertaken to review and improve implementation processes, exploring factors such as installation, accessibility, usability, fit with workflow and clinical relevance. This paper focuses on the implementation of the chronic kidney disease (CKD) intervention arm.

Population/Setting

The CKD intervention was implemented in 20 general practices across Victoria in metropolitan, regional and rural locations. GPs, nurses and practice managers were asked to participate in the intervention and evaluation.

Method

A mixed methods approach was utilised. Data sources included interviews with general practice staff from 20 practices at three time points (Months 1, 7 and 11), conducted from Nov 2021-Sept 2022; practice engagement activities (including support provided/requested); usability survey; usage and activity data. Interviews were analysed using a realist lens applying inductive and deductive strategies. Engagement, usability, usage and activity data were analysed using simple descriptive analysis, supplemented with a second level of thematic analysis, where possible.

Results/Findings

Implementing new technology in primary care settings in a global pandemic required fast, flexible and collaborative strategies to ensure that the technology enhanced, not impeded, clinical workflow.

Implications/key message

Involving primary care end users in continuous co-design has strengthened both the clinical decision support technology platform and the implementation strategy. Findings from this evaluation will further strengthen implementation of quality improvement strategies across primary care.
Presented on behalf of the FHT Team

Falls mobilisation alarms - response times and utilisation before and after the introduction of policy for alarm reduction or elimination

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Falls mobilisation alarms - response times and utilisation before and after the introduction of policy for alarm reduction or elimination

Background
Healthcare services must deliver high quality, evidence-based care that represents sound value. Falls are one of the most common adverse events that impact on the recovery of hospital inpatients. Falls mobilisation alarms are a falls strategy used in hospitals to prevent falls and are designed to alert staff when a patient is attempting to mobilise and may be putting themselves at risk of falling. They cost $AUD58MIL each year in Australia and there is growing evidence that they are not effective.

Method
Monash Partners Falls Alliance mapped and costed falls prevention activities across six Melbourne Health services. Results were presented to a multidisciplinary team of falls experts, including consumers. Falls mobilisation alarms were chosen as a potential area for disinvestment due to poor evidence and high cost. A descriptive study was conducted to describe true and false alarm triggers and trigger response times and alarm usage rates and to investigate the feasibility of reducing or eliminating falls alarm use.

Results or findings
The most frequent observation was a false alarm (n = 74, 52%), and the average time to respond was 65 seconds. Introducing policy for reduced and eliminated mobilisation alarm conditions was successful with a reduced utilisation rate of 1.8% (n = 11/609) and an eliminated utilisation rate of 0.0% (n = 0/521).
Implications or key message

Half of mobilisation alarm triggers are false and when alarms trigger without staff present, staff take about a minute to respond. It is possible to introduce policy which will change practice to reduce or eliminate the use of mobilisation alarms, providing evidence of feasibility for future disinvestment effectiveness studies that it is feasible to disinvest in the alarms.

Epidemiology of falls in Australian residential aged care: a retrospective longitudinal cohort study using routinely-collected data

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Background
Falls are common public health issues in older adults and have significant health and economic burdens. There have been limited studies on the epidemiology of falls in the residential aged care setting.

Objective
To determine the incidence of falls in residential aged care using longitudinal routinely-collected data over five years (Jul 2014-Dec 2019).

Design & Setting
A retrospective dynamic cohort study using reported incident data from 25 residential aged care facilities in Sydney, NSW, Australia.

Participants
6,163 residents (4,136 permanent and 2,027 respite) aged ≥65 years.

Outcome measures
Outcome measures included incidents of all falls, injurious falls and falls requiring hospitalisation per 1000 resident days. We calculated the risk-standardised falls incidence rate (RSFIR) to compare outcomes between facilities.

Results
There were a total of 27,878 falls over 3,906,772 resident days. Of these, 10,365 (37.2%) were injurious and 2,733 (9.8%) required hospitalisation. The crude incidence rates (95% CI) were 7.14 (6.81-7.48), 2.65 (2.53-2.78) and 0.70 (0.66-0.74) incidents/1000 resident days for all falls, injurious falls and falls requiring hospitalisation, respectively. The incidence of falls was significantly greater in men compared to women for all outcome measures and respite vs permanent residents for all falls and injurious falls. The RSFIR for all falls ranged between 0.57-12.93 incidents/1000 resident days across facilities, with one facility having a high outlying rate. The RSFIR ranged from 0.25-4.47 incidents/1000 resident days for injurious falls and from 0.10-1.70 incidents/1000 resident days for falls requiring hospitalisation across facilities.

Conclusions
The study found a high rate of the incidence of falls in residential aged care. Further research should be conducted to understand whether the implementation of certain falls risk prediction tools coupled with targeted preventive measures can reduce the incidence of falls in this vulnerable population.

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How does Complexity in the Diagnosis Related Groups relate to the Palliative Care Phase?

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Introduction

The Palliative Care Phase (stable, unstable, deteriorating and terminal) is routinely used for communicating clinical status, care planning and funding. We conducted an exploratory analysis to determine any association between clinical complexity defined by the Diagnosis Related Group (DRG) to the first Palliative Care Phase of their hospital admission in the last year of life.

Method

Data of all palliative care patients who died between 1st January 2018 and 31st December 2019 in St Vincent's Hospital, Sydney, was extracted from the Activity Based Management Portal, hospital and palliative care electronic records. Clinical complexity was derived from the DRG using DRG Grouper software and categorised into higher (major) or lower (intermediate or minor). Chi-square tests were performed to compare the Palliative Care Phase and the complexity of each phase.

Results

577 patients had 2,509 Palliative Care Phases for analysis: stable (n=732, 28.9%), unstable (n=684, 27.0%), deteriorating (n=624, 24.6%), and terminal (n=469, 18.4%). 82.7% of all Palliative Care Phases were classified as higher complexity.

The stable phase had higher odds of being of higher complexity compared to those not in the stable phase (OR 1.49; 95% CI 1.17, 1.90). The non-terminal phase had higher odds of being of higher complexity compared to the terminal phase (OR 1.64; 95% CI 1.29, 2.10).

There were no statistically significant differences between higher complexity and the unstable phase (unstable: 82.5% versus not unstable: 82.7%, p=0.867); and between higher complexity and the deteriorating phase (deteriorating: 83.2% versus not deteriorating: 82.5%; p=0.867).

Conclusion

Higher complexity within the DRG is associated with some but not all the Palliative Care Phases suggesting that clinical complexity within the DRG alone is insufficient to guide funding of inpatient palliative care in hospitals. Other components to consider include intensity of care which may not be related to clinical complexity.

Tell Gippsland PHN about dementia

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Introduction
In Gippsland, dementia is the second most common cause of death. This study aimed to improve our understanding of living with dementia and to help make better decisions about how the health needs of people with dementia in Gippsland can be addressed.

Population/setting
People living with dementia, carers/family members and professionals working in Gippsland, Victoria. Findings informed the Gippsland PHN 2021 Health Needs Assessment.

Method
Interviews were conducted between August and November 2020 asking participants about their experience of dementia and with dementia services and supports, what was needed to make life better and what was most important to them. Data were coded and analysed in NVivo using a combination of the Framework Method and a thematic analysis. Ethics approval was provided by Monash University HREC.

Results
Twenty-six participants were interviewed; five living with dementia, 10 carers/family members and 11 health professionals/dementia support workers. Themes for people living with dementia included; confusion, frustration and embarrassment when no longer able to do simple things, worries about the future and losing independence, difficulty accessing needed care and importance of personal support. Carers/family members described system navigation as challenging, diagnosis variation from person to person, lack of support after diagnosis and a demanding carers role with additional supports needed to remain in their own home. Themes for professionals included; lack of understanding of dementia in community and among health professionals, service gaps to access geriatricians and respite care and a model of care that makes the delivery of person-centred care difficult.

Implications/key message
Within this cohort, the needs of people living with dementia and their carers are not currently being met. In particular, poor education and awareness about dementia and dementia services, structural barriers accessing appropriate and quality health care and shortage of trained professionals are areas that need addressing.

Psychological distress before total knee arthroplasty is associated with longer hospital stay after surgery.

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Introduction

Acute hospital length of stay (LOS) after total knee arthroplasty (TKA) is a key indicator of hospital performance. Previous research exploring LOS has focused on physical health or used surrogate measures of psychological health. Our aim was to investigate the association between pre-operative psychological health and LOS after TKA.

Population

Prospective, observational study of 75 participants from two hospitals in Sydney, Australia.

Method

Participants were scheduled for a unilateral, primary TKA and lived within Western Sydney Local Health District. We excluded those with moderate/severe cognitive impairment or planned orthopaedic surgery within six months of the index TKA. Pre-operative measures included sociodemographic data, anthropometric data, pain, function, leg strength, fatigue, resilience and quality of life. Psychological distress was measured using the Depression, Anxiety and Stress Scale-21 (DASS-21). Participants who reported any level of psychological distress on the DASS-21 before TKA were assigned to the “psychologically distressed” group. All other participants were assigned to the “psychologically well” group. Our primary outcomes were acute hospital LOS (calendar days) and incidence of inpatient complications. Non-parametric methods were used to compare groups on primary outcomes. Generalized linear modelling with Poisson loglinear distribution was used to conduct univariate and multivariate analysis in order to determine pre-operative factors affecting LOS.

Results

The psychologically distressed group had a significantly longer hospital LOS compared to the psychologically well group (median LOS 5.0 days IQR 2 vs 6.0 days IQR 3, Mann Whitney U=495.500, p=0.028), with no significant difference in inpatient complications between groups (p>0.05). Leg strength was the only significant predictor of LOS on multivariate generalized linear modelling (OR -0.972, 95%CI OR 0.946-1.000, p=0.047).

Implications

Embedding psychological health assessment into pre-operative care before TKA is feasible and will better identify those at risk of longer hospital stays. Future research should consider optimizing both psychological and physical health.

Understanding the carer role and challenges in Central and Eastern Sydney: a population based linked cohort study of people age 45 years and over

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Background

Carers comprise a significant portion of the Australian community. In 2015, almost 2.7 million Australians were carers. Almost one-third (31.7%) of this group were identified as primary carers. There is currently a lack of evidence on the impact of being a carer on a person's health and wellbeing.

Population

29,489 people aged over 45 in the Central and Eastern Sydney region.

Method

Characteristics of carers and non-carers were described. Outcomes for each of these groups—general practice (GP) use, hospitalisations and mortality—over an 8-year period were calculated and compared. Characteristics of carers who were coping well compared to those who were not (using quality of life as the indicator) were also described, as well as differences in health service use and mortality.

Results

Around 12% of the cohort were carers at a given time, though most transitioned over a five-year period. Carers had higher rates of GP use than non-carers [Adj. HR (95% CI): 1.21(1.13, 1.30)]. However, hospital admissions and mortality were not significantly different.

Carers who were coping well, once adjusted for covariates, were more likely to self-report good quality of health, and less likely to have high psychological distress. Carers who were coping well were 24% less likely to be high GP users [Adj. HR (95% CI): 0.76 (0.63, 0.94)] and had 33% lower mortality rates [Adj. HR (95% CI): 0.67 (0.51, 0.87)]. Hospital admissions were not significantly different.

Implications

This study confirms that carers do not typically remain in their role for a long time. Caring frequently starts suddenly and people need to quickly adapt to their new role.
This study’s finding that carers are well-engaged with general practice suggests that GP is an important setting to: identify people in caring roles; identify carers who may be struggling in these roles; and delivering interventions for carers.

Barriers and facilitators to accessing primary diabetic eye care: a mixed methods study

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Background

Diabetic retinopathy is common ocular complication of diabetes mellitus and a major cause of vision impairment and blindness in Australia. Regular eye screening and timely treatment are key to preventing vision loss. The NHMRC recommends comprehensive eye examinations at least every two years and closer monitoring of patients with poorly controlled diabetes, or if diagnosed for >10 years. However, adherence to eye exams is suboptimal (50-75%), and even lower (21-28%) in people who have had diabetes for ≥10 years.

Method

Parallel mixed methods study design: semi-structured interviews and medical record review (including age, sex, risk factors for and level of diabetic retinopathy). Participants were recruited by convenience sampling of people with diabetes attending general practice (GP) or optometry services in Western Sydney. The interview schedule was guided by the Levesque framework on patient-centred access to health care. Interviews were conducted over the phone, audio recorded and transcribed verbatim for deductive thematic analysis guided by the Levesque framework with regards to accessing diabetic eye care.

Results

Nine participants were recruited, most were diagnosed with diabetes less than 10 years ago (78%) and had no diabetic retinopathy (78%). Barriers to accessing diabetic eye care included 1) Lack of perceived need for regular eye exams; 2) Cost of eye care including loss of income and lack of transparency in out-of-pocket costs. Health service characteristics that facilitated access included 1) GP-optometrist collaboration; 2) Availability of optometric services (after hours appointments, geographic location and car parking); 3) Medicare bulk billing and 4) Text message reminders and 5) Good patient-practitioner relationship.

Implications

These findings provide direction for enhancing access to primary diabetic eye care which can inform the development of models of person-centred care that can overcome barriers to accessing care. This would enable early detection of diabetic retinopathy and prevention of vision loss.

Training health service champions: An innovative approach to reduce health service waiting lists for community based paediatric therapy services

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Background

Long waitlists are a problem in community paediatric allied health services, leading to anxiety for families and missed treatment opportunities.

The Specific Timey Appointments for Triage (STAT) model is an effective approach to reduce waitlists in community outpatient services, combining backlog reduction with responsive, data-based scheduling. However, formal trials of STAT to date have relied on researchers driving implementation.
The CSTAT trial aims to determine whether STAT can improve access to children’s therapy by training health service champions. This poster reports on the process of implementation and outcomes of the backlog reduction phase.

Methods

Six paediatric community health services participated in training to implement STAT, supported by interactive webinars, ad hoc consultation with researchers and a backlog reduction grant of $10,000. The process of implementation and backlog reduction were evaluated using routinely collected data and participant interviews.

Results

The STAT model was successfully implemented in five of six participating services.
Service representatives participated in five x 2-hour workshops over 6 months with ad hoc support. The five sites that implemented STAT significantly reduced numbers on the waitlist by 70% (from a mean of 67 to a mean of 20) using strategies including audits, intake process redesign, short-term increase in capacity, assessment blitz periods, and single-discipline rather than team assessments. These services matched clinician schedules to expected demand, consistent with the STAT model.
Stakeholders were positive about the experience, but emphasised the importance of adapting STAT to local context.

Conclusion

Phase one of this study demonstrated that STAT was implemented in five of six services: waitlists were reduced and processes redesigned to follow the principles of the STAT model. The next phase will determine whether STAT achieves ongoing reductions in waiting time in this setting.

Digital Health Solutions for Reducing the Impact of Non-Attendance: A Scoping Review

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Background

Non-attendance is considered a significant source of waste in modern healthcare systems and can contribute to lengthened waiting lists, ineffective and inefficient use of staff time, and may limit accessibility for other patients to appointments. This scoping review aimed to systematically examine the scope of evidence regarding a broad range of digital health interventions that have the potential to reduce the impact of non-attendance at scheduled outpatient appointments.

Method

EMBASE, CINAHL, PubMed, and Web of Science were searched from 01 January 2010 to 01 May 2021. This review included studies that report on implementing one or more digital solutions to reduce the impact of non-attendance in the outpatient setting and reports on whether the implementation of the digital solution led to a reduction in non-attendance or improvement in a non-attendance metric.

Results: Of the total of 2,752 records, 31 articles were included in the analysis. These papers reported on automated reminder systems (n=19), prediction models coupled with a targeted intervention (n=2), telehealth alternatives (n=5) and booking systems (n=5). These studies were examined for evidence related to the effectiveness of the solutions investigated for reducing the impact of non-attendance. Then for information related to the cost or cost-effectiveness of these interventions. The effectiveness of the digital health-related solution was seen across several studies: 9 reminder systems, 2 prediction models, 3 telehealth, and 4 booking systems. Only 8 studies reported costs and no studies reported cost-effectiveness.

Implications

While reminder systems were the most commonly investigated intervention in the field, there is emerging evidence to support other digital health-related solutions that have the potential to reduce the impact of non-attendance across outpatient healthcare settings. However, further investigations of these emergent technologies, including economic evaluations, are needed to provide appropriate policy and practice guidance.

Adult Occupational Therapy and Physiotherapy Services in the Kivalliq Region of Nunavut: Feasibility of Mapping the Client Journey

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The territory of Nunavut, which means "our land" in Inuktitut, was created in 1999. Nunavut has a population of approx. 31,000 and has 3 regions with communities accessible only by plane. The majority of Nunavummiut (the people of Nunavut) are Inuit, representing 85% of the population. Since 2000, following a community needs assessment, the Government of Nunavut has funded, and Ongomiizwin – Health Services has coordinated, Occupational Therapy (OT) and Physiotherapy (PT) services in the Kivalliq Region of Nunavut. A feasibility study on client journey mapping with adult Inuit OT and PT clients was conducted. Using program utilization data, descriptive statistics were used to identify adult OT and PT clients with high utilization of services to determine clients for journey mapping. Client journey mapping is a methodology that can help us to understand a series of health care events by exploring the patient experience from their perspective and looks for opportunities to make improvements. The Managing Two Worlds Together Patient Journeys workbook (Kelly, Dwyer, et al., 2016) was adapted to focus on OT and PT services, and for use in Nunavut with Inuit OT and PT clients. Relevant areas of focus for feasibility studies were selected as the method to determine feasibility of client journey mapping with OT and PT clients in the region. The adapted client journey mapping tool was found to be feasible for ongoing program evaluation and could be considered for use in other regions of Nunavut. Further adaptations incorporating Inuit Qaujimajatuqangit (IQ) principles (Inuit traditional knowledge) and aspects of cultural safety and decolonization frameworks were proposed. Program utilization data and the adapted client journey mapping tool can provide additional knowledge on OT and PT adult services for program improvement.

A whole system snapshot of Out of Hours presentations in the Australian Capital Territory: what issues were presenting and why?

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Introduction

Out of Hours (OOH) medical care is provided by primary and tertiary services. To provide appropriate care OOH, we need to know what is presenting, where, and why patients choose to attend. This study aims to describe patient presentations and reasons for presentation to OOH medical services, and to compare presentations by service type.

Setting

OOH community based primary care (general practice, nurse clinics and locum medical services) and public emergency departments.

Methods

A patient completed survey was collected across OOH services in the ACT, for one week-night and weekend in 2019. Surveys were voluntarily conducted at 31/51 general practices (GP) open OOH (of 86 total GP practices), 3/3 GP locum services (CALMS), 3/3 Nurse led Walk-in-Clinics (WICs), and 2/2 public emergency departments (ED). Simultaneous practitioner record was collected in WIC, CALMS and GP. Retrospective EDIS records were collected from ED covering the study period.

Results

1992 patient surveys and 934 practitioner records were returned. 526 de-identified ED records were sourced. Presentations differed by service type with the most common issues being: respiratory or skin related for GP, CALMS, and WIC, and musculoskeletal related for ED. Patient reasons for attendance differed by service type, with perceived need most common among CALMS, WIC and ED presentations; whereas personal preference was most common among GP presentations. Patient reasons for selecting specific services indicate preference for usual GP care when available. Modifiable patient reasons for attending ED included access to facilities (e.g., x-ray) and being unaware of other options.

Implications

Patients present OOH due to perceived need for medical care and personal preference for OOH care. Findings could help to redirect inappropriate presentations (particularly away from ED) and reorient health services to support timely access to appropriate levels of care for patients OOH.

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Accessible health information- human right or kind favour ?

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Introduction

The United Nations Convention on the Rights of Persons with a Disability (UNCRPD) says that access to health information is a right, including for people with intellectual disability. Australian advocates have identified people with intellectual disability do not have accessible formats of health information. This study explored availability and use of easy read information about mental health in Australia.

Method

A mixed methods study including policy analysis and semi-structured interviews to explore how easy read was used. Australian and New South Wales (NSW) State and Local Health District mental health policy documents were reviewed (n=66) to determine how the right to information access is represented. Semi-structured interviews were conducted across four sites in Sydney NSW. Participants (n=49) included people with intellectual disability, their carers or families, advocates and mental health staff. The data were analysed using activities of accessing, understanding, appraising and applying information as defined in Sørensen et al.'s integrated health literacy framework.

Findings

Mental health policy rarely incorporated communication strategies for staff to use when working with people with intellectual disability, despite agency commitment to the principle of accessible information. Most mental health staff did not use accessible information and did not consistently offer people with intellectual disability opportunities to interact with mental health information. Relationships between people with intellectual disability, family or carer and service providers affected information access for people with intellectual disability.

Key message

People with intellectual disability did not routinely have access to mental health information, confirming that agencies are not meeting their obligations to provide accessible information. Inclusive practices, that incorporate using easy read in health contexts, including mental health, are needed to facilitate change. Australian health systems need to reposition access to information as a right, not a kind favour or additional service.

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Can current funding mechanisms facilitate the provision of cost-effective models of supportive care for cancer patients in primary care?

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Introduction

Individuals living with or beyond cancer have a range of supportive care needs including psychosocial needs, physical needs such as fatigue and nausea and practical needs such as return to work and financial difficulties. The planning and funding of allied health and nursing services have been identified as barriers to meeting these needs. This study aims to assess options for funding cost-effective models of supportive care in an Australian primary care setting.

Methods

Interviews with GPs and practice nurses were conducted to understand current approaches to managing cancer supportive care needs in primary care, alongside a review of interventions to address supportive care needs. The qualitative analyses, review findings and prevalence data on unmet supportive care needs informed modelling of the costs and benefits of selected interventions. These data will be presented to stakeholders to assess the feasibility and acceptability of implementation in the Australian primary care setting.

Results

GPs and practice nurses reported inadequate consultation time and insufficient funding for allied health referrals as barriers. Over 500 reviews of interventions to address cancer supportive care needs were identified. The reviews identify a range of effective interventions with the potential to be delivered in the Australian primary care setting. Modelled estimates of the expected costs and benefits of mindfulness-based stress reduction and cognitive behavioural therapy were generated to assess cost-effectiveness and funding gaps based on current funding mechanisms.

Implications or key message

Funding issues need to be addressed to meet unmet supportive care needs for cancer patients. The assembled evidence will be shared with a stakeholder group of consumers, GPs, practice nurses and allied health professionals to inform a comprehensive evaluation of intervention and funding options.

Evaluation of Comparative Symptom Distress in Palliative Care Across Culturally and Linguistically Diverse Groups in Australia for Individuals with Cancer

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Background

Migrant Australians with cancer have higher unmet needs and poorer health-related quality of life. Less is known about the palliative care experience of CALD Australians with cancer. We sought to assess the comparative symptom distress of CALD Australians with cancer in palliative care using data collected throughout the last week of life from a unique national dataset.

Method

Data were from the Palliative Care Outcomes Collaboration (PCOC), which routinely collects standardised symptom assessments. Over 70% Australian specialist palliative care services participate in PCOC. Data were from adult patients with a cancer diagnosis who died between Jan 2016 – December 2019. Participants were defined as CALD if their preferred language was other than English. Seven symptoms were assessed using the PCOC Symptom Assessment Scale. The presence or absence of symptom distress was compared between CALD and non-CALD patients using descriptive statistics and logistic regression models. We also compared symptoms between patients who preferred English and patients preferring other languages, focusing on the four most common ones in the dataset (Chinese, Greek, Italian, Slavic).

Results

A total of 53,964 patients with cancer died within the study period, allowing analysis of 104,064 assessments. CALD patients were less likely to report symptoms compared to non-CALD patients (pain: OR=0.89[0.85-0.93]; fatigue: OR=0.99 [0.94-1.05]; all other symptoms OR<1 and CIs did not contain 1). There was variation across preferred language groups, but patients who preferred languages other than English were more likely to report the absence of distress for symptoms such as pain (Chinese: 51.2%, Italian: 48.5%, Slavic: 48.4%, Greek: 46.4%, English: 44.1%).

Implications

We did not find evidence of comparatively worse symptom distress for CALD Australians. Better symptom management or differential reporting may explain this. These results underscore the importance of understanding differences within these groups to ensure the delivery of high-quality palliative care.

An evaluation of end-user experience of the National Cancer Screening Register Healthcare Provider Portal

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Introduction

Australia's three population-based cancer screening programs aim to prevent cervical, breast and bowel cancer through early detection. All three programs are supported through state or national registries, enabling an electronic record for each person participating in screening. The National Cancer Screening Registry (NCSR), implemented in 2017, supports the delivery of the National bowel and cervical screening programs. In October 2020, the NCSR launched a Healthcare Provider Portal to allow healthcare providers (HCP), who play a critical role in facilitating screening with their patients, real time access to registry records online or through practice medical software.

Aim

To understand early-adopting HCPs experience of the healthcare provider portal in the first year of its implementation.

Method

Semi-structured interviews were conducted (n=11) with general practitioners and nurses with transcripts thematically analysed in NVIVO 12.

Results

Most HCP reported high acceptability of the Healthcare Provider Portal, stating that the portal supported more timely access to records and greater ability to facilitate discussions around cervical screening during consultations and in some instances, bowel screening. HCP noted that awareness of its availability had not reached saturation throughout the workforce. Barriers to use included difficulties with registering and accessing the portal, unfamiliarity with its features and inability to identify which HCP have previously ordered tests, uploaded results, or provided follow-up care. HCP also cited difficultly in the identification of some participants and questioned BreastScreen Australia's exclusion from the NCSR.

Implications

Findings provide early indication that the Healthcare Provider Portal is achieving its objective of supporting HCPs engagement the national programs, particularly for cervical screening. Promotion and training for HCPs will support greater uptake and use. As the roll-out of the portal continues, further evaluation should be conducted to monitor implementation to maximise its potential to support HCPs engagement with the national screening programs.

Factors impacting healthcare costs of cancer survivors: results from a Queensland population data linkage study (COS-Q)

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Introduction/background

The number of individuals surviving with cancer is increasing worldwide. Little is known about factors impacting healthcare costs for this cohort in Queensland, Australia.

Population/setting

All Queensland residents diagnosed with a primary malignancy between 01/1997 – 12/2015, who incurred health service costs between 2013-2016.

Method

A retrospective data linkage study of Queensland Cancer Register data linked with administrative healthcare and cost records for hospitalisations, pharmaceuticals, Medicare services and emergency services was conducted. Generalised linear models with a logarithmic-link function and gamma distribution were fitted to explore the relationship between mean annual healthcare costs and independent variables, including socio-demographic (age, sex, country of birth, marital status, occupation) and clinical factors (type of cancer by relative 5-year survival, year of cancer diagnosis, vital status, type of health service). 95% confidence levels were used and p-values of <0.05 were treated as significant.

Results/findings

All tested variables were independently associated with mean annual healthcare costs per person. Significantly higher healthcare costs were recorded for individuals' hospitalisations (exp(b) = 3.2) and use of pharmaceuticals (exp(b) = 2.25), compared to individuals who did not. But also, vital status 'deceased' (exp(b) = 1.8), cancer diagnosis between 2012-15 (exp(b) = 1.6), and types of cancer with relative chance of 5-year survival being low (exp(b) = 1.11) or medium (exp(b) = 1.5) compared to high. Significantly lower health service costs were recorded for patients aged 0-24 or above 90 years, females (exp(b) = 0.988), born outside Australia (exp(b) = 0.985), not currently working (exp(b) = 0.988) and unpartnered (exp(b) = 0.981).

Implications/key message

In our cohort of N=230,380 cancer survivors the greatest predictors of high costs were hospitalisations and the use of pharmaceuticals, individuals who had died, were diagnosed recently, were aged 50-89 years or were diagnosed with a cancer with medium chance of relative 5-year survival.

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Safety events among culturally and linguistically diverse patients in cancer services in New South Wales: A retrospective medical record review study.

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Background

Complex treatment, high-toxicity medications, and the involvement of a range of health providers in cancer care delivery mean that patient safety is a priority issue for cancer services. Culturally and linguistically diverse (CALD) consumers are identified as at risk of particular safety events in their care due to cultural and language barriers, particularly in relation to medications. Yet retrospective review studies to date provide insufficient socio-cultural information to determine the nature and extent of safety events occurring amongst CALD consumers in cancer services.

Aims

To understand the nature of safety events experienced by CALD patients in cancer services, and to examine the association between socio-cultural data to the number of safety events experience in a one-year follow up period.

Method

A two-stage retrospective medical record review using an oncology trigger tool was conducted across two cancer services in New South Wales. Quantitative analysis was conducted using IBM SPSS software .

Results

Preliminary analysis identified 104 medical records with one or more safety events out of 300 medical records reviewed. Medication related safety events (n = 54/161) were the most common type of event. Bivariate correlation analysis demonstrated a positive association between the number of safety events and when interpreter was recorded as required ($r = 0.175$, $N = 300$, $p = 0.002$), and preferred language was non-English ($r = 0.131$, $N = 298$, $p = 0.024$).

Conclusion

This study presents a novel approach to study safety events in CALD patients accessing cancer services with way forward for future research to examine variability in between the groups in more detail. For cancer services, there is a need to strengthen the systems to collect diverse socio-cultural data to enhance service delivery in accordance with the need.