Strengthening the Australian health care system - can research help?

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8th NSW Rural Health & Research Congress, Lismore, October 2019

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Overview

- How good is the Australian health care system?
- Introduction to health services research
- A couple of examples of research undertaken by the Australian Health Services Research Institute (AHSRI)
- Can health services research help solve real life problems facing the Australian health system?

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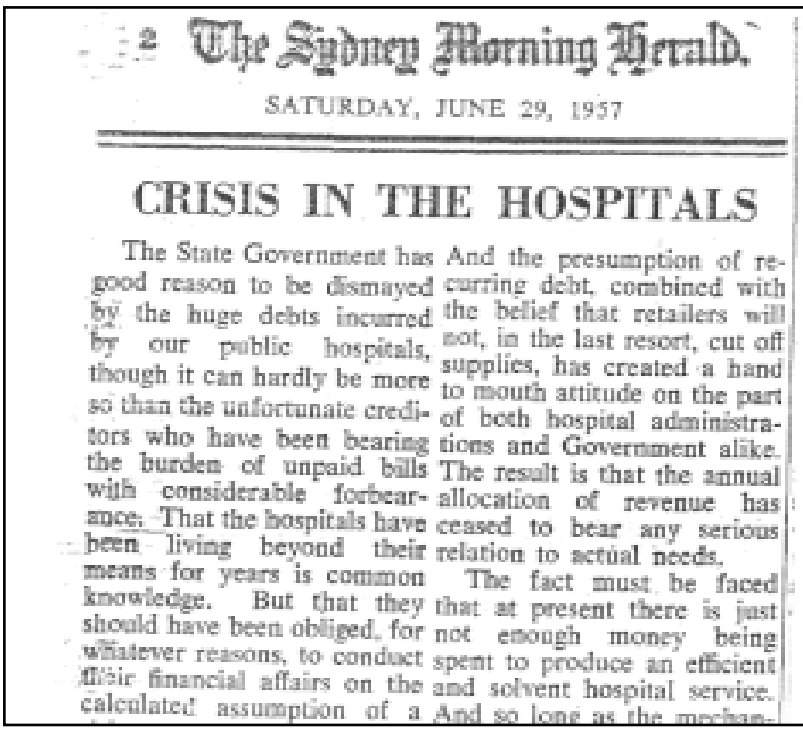

2 The Sydney Morning Herald.

SATURDAY, JUNE 29, 1957

CRISIS IN THE HOSPITALS

The State Government has good reason to be dismayed by the huge debts incurred by our public hospitals, though it can hardly be more so than the unfortunate creditors who have been bearing the burden of unpaid bills with considerable forbearance. That the hospitals have been living beyond their means for years is common knowledge. But that they should have been obliged, for whatever reasons, to conduct their financial affairs on the calculated assumption of a

And the presumption of recurring debt, combined with the belief that retailers will not, in the last resort, cut off supplies, has created a hand to mouth attitude on the part of both hospital administrations and Government alike. The result is that the annual allocation of revenue has ceased to bear any serious relation to actual needs.

The fact must be faced that at present there is just not enough money being spent to produce an efficient and solvent hospital service. And so long as the mechan-

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"The fact must be faced that at present there is just not enough money being spent to produce an efficient and solvent hospital service"

June 29, 1957

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Pressure on the health system is real

- 'Unless alternatives are developed, it will be necessary to open at least 300 new beds in NSW each year to keep up with predicted growth in demand'. The implications are severe:
  - in 1971-72 health represented 15% of the total NSW budget
  - by 2007-08 this had increased to 28%
  - at this rate, funding for health will consume the entire State budget by 2033."

  Ref: NSW Audit Office 2008, p.2

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Snapshot of Population Health Challenges

Percent of adults reporting:	Multiple chronic conditions*	Experiencing emotional distress in past year they couldn't cope with alone	Unable to do daily activities or work full-time because of health
AUS	**15**	**20**	**12**
NETH	14	19	19
UK	14	17	15
SWIZ	15	21	13
NZ	16	21	15
NOR	16	20	23
GER	17	7	15
FRA	18	12	24
SWE	18	24	22
CAN	22	27	20
US	28	26	21

* Chronic conditions asked about were: 1) joint pain or arthritis; 2) asthma or chronic lung disease; 3) diabetes; 4) heart disease; 5) hypertension.

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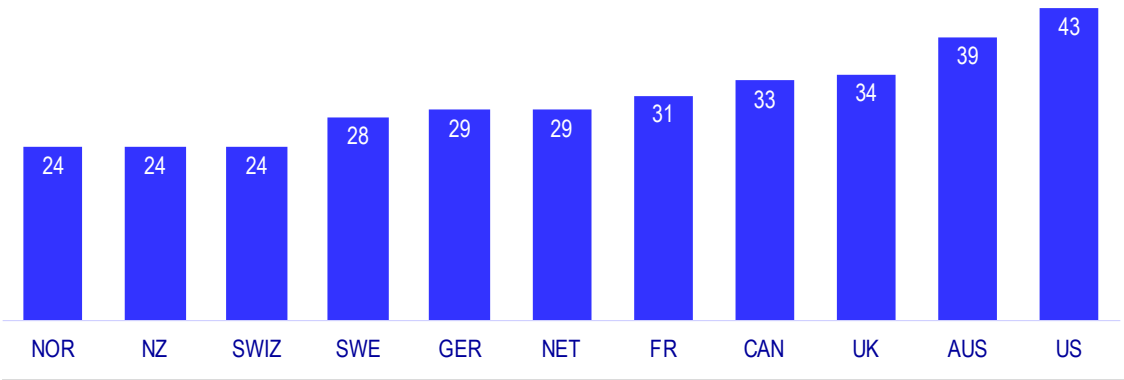
EXPERIENCES OF HIGH-NEED OLDER ADULTS

Percent of Older Adults with 'High-needs' (%)



The Commonwealth Fund

Source: 2017 Commonwealth Fund International Health Policy Survey of Older Adults
High-need definition: Percent of older adults with either three or more chronic conditions or functional limitations.

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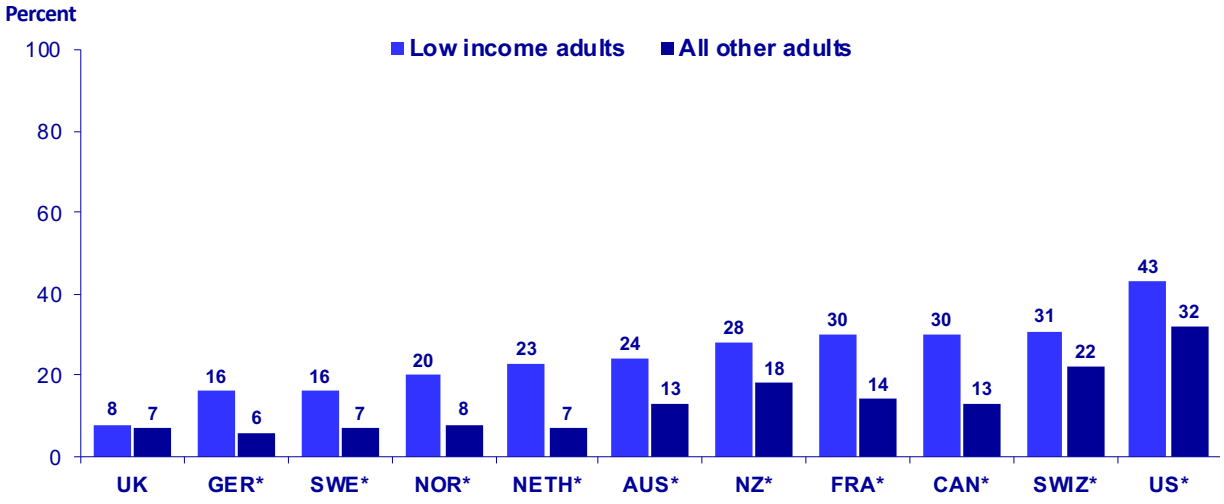
Cost-Related Access Barriers in the Past Year, by Income



*Indicates differences are significant at p<0.05.
Note: "Low income" defined as household income less than 50% the country median. Sample sizes are small (n<100) in the Netherlands and UK.

Source: 2016 Commonwealth Fund International Health Policy Survey

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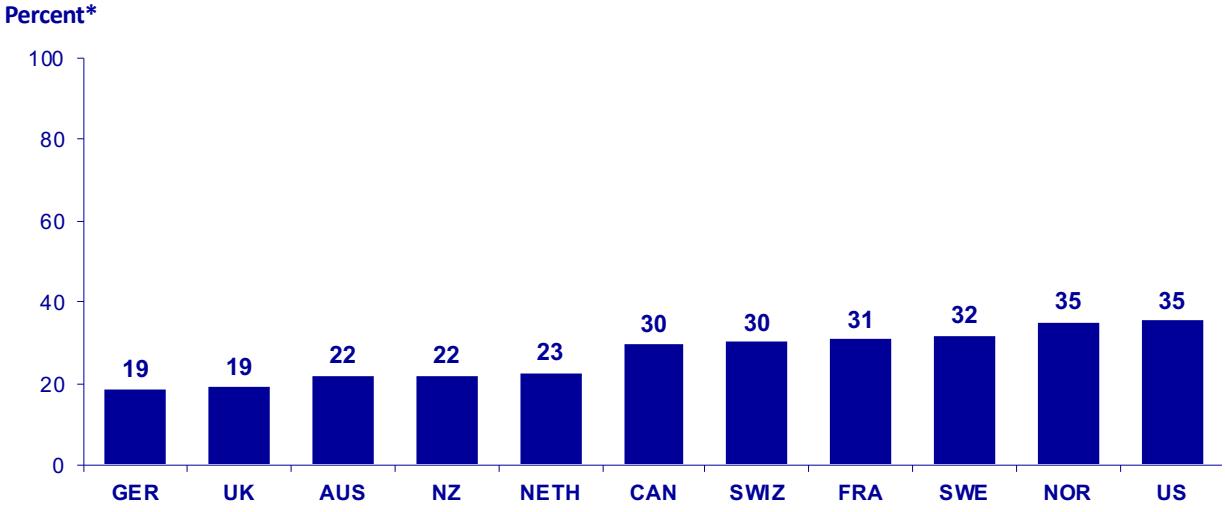
Experienced a problem with care coordination



* Test results/records not being available at appointment or duplicate tests ordered; specialist lacked medical history or regular doctor not informed about specialist care; and/or received conflicting information from different doctors or health care professionals in the past two years.

Source: 2016 Commonwealth Fund International Health Policy Survey

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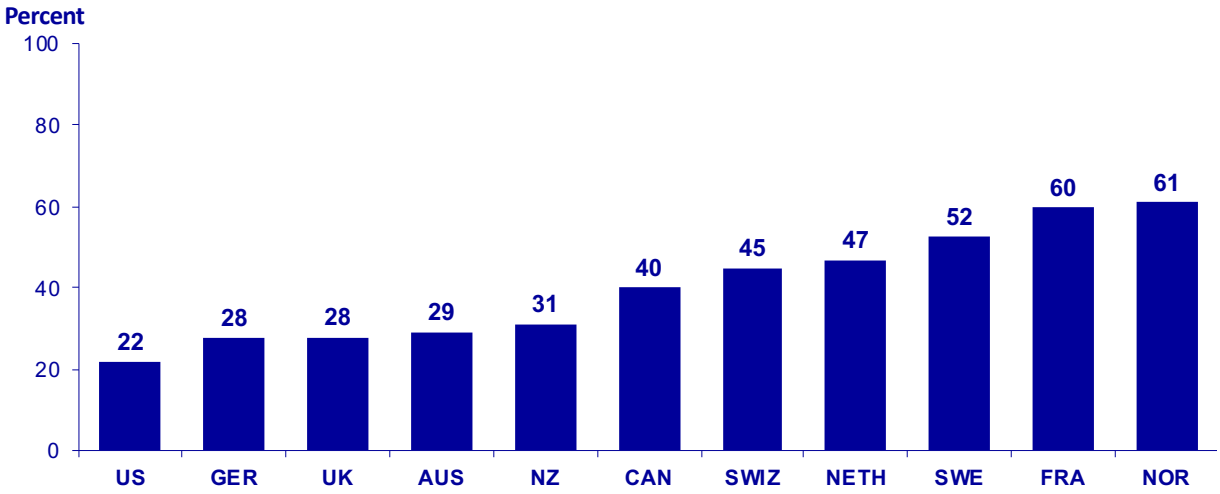
Experienced a gap in hospital discharge planning



Base: Hospitalized in the past two years. Gaps in discharge planning include not: discussing the purpose of taking each of medication(s); having arrangements for follow up care with a doctor or other health professional; and/or receiving written information on what to do upon return to home and what symptoms to watch for.

Source: 2016 Commonwealth Fund International Health Policy Survey

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By international standards…

- Australia is doing OK (mostly a bit above average)
- But not as well as we used to
  - because of massive increases in co-payments and user pays
- And not as well as we could be doing
- Population ageing and increasing community expectations will keep the pressure on the system going forward
  - Without serious reform, we will look back on 2019 as the 'good old days' ☺

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Increased investment in prevention won't help (much)

The 'Compression of Morbidity'

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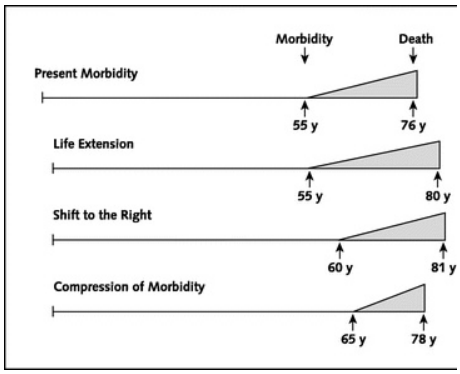
Prevention and the *Compression of Morbidity*

- First proposed in 1980
- The economic justification for investment in prevention
- If we can postpone the age of onset of 'chronic infirmity', the burden of lifetime illness can be compressed into a shorter period before death
- But the evidence points to a shift to the right:
  - As populations age, they become increasingly infirm and consume an ever-larger proportion of healthcare costs



Fries JF. Measuring and monitoring success in compressing morbidity. Annals of Internal Medicine. 139 (5 Pt 2):455-9, 2003 Sep 2.

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What is health services research?

Investigating wicked problems, finding practical solutions and deriving lessons relevant to policy

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Health Services Research (HSR)

- Multidisciplinary research that aims to improve the health services patients receive
- The audience for HSR includes not only other academics but also patients, providers, managers and politicians
  - creating important opportunities for partnerships and funding and
  - blurring the usual academic distinction between 'investigator-driven' and 'priority-driven' research

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Health Services Research (HSR)

- applied rather than 'basic' research
- many dimensions: better quality, safer care, better accessibility, improved efficiency and better outcomes
- differs from single-discipline research in that it seeks to understand these dimensions from multiple perspectives using mixed methods
- the focus on services distinguishes HSR from other health research such as epidemiology, clinical research and population health research

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Current issues in the media keeping Chief Executives up at night

- Identify three contemporary **health service** issues:
  - keeping your Chief Executive up at night
  - where better evidence could help with decision-making
- Identify at least one way to bring together and align researchers and the health service to collaborate on this issue

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Australian Health Services Research Institute (AHSRI)

A health services research and policy institute of the Sydney Business School, Faculty of Business, University of Wollongong

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AHSRI Research Centres

- Centre for Health Service Development (CHSD)
- National Casemix and Classification Centre (NCCC)
- Centre for Health Research Illawarra Shoalhaven Population (CHRISP)
- Australasian Rehabilitation Outcomes Centre (AROC)
- electronic Persistent Pain Outcomes Collaboration (ePPOC)
- Palliative Care Outcomes Collaboration (PCOC)
- Ngarruwan Ngadju First Peoples' Health and Wellbeing Research Centre

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Some examples of our research questions

- How to measure patient outcomes in chronic disease?
- What is the best funding model for residential aged care?
- Is text messaging an effective method of delivering mental health crisis services?
- Why do patients go to an Emergency Department rather than to a GP?
- How do palliative care patient outcomes compare in hospital and at home?

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What research help?

Aged Care as an example

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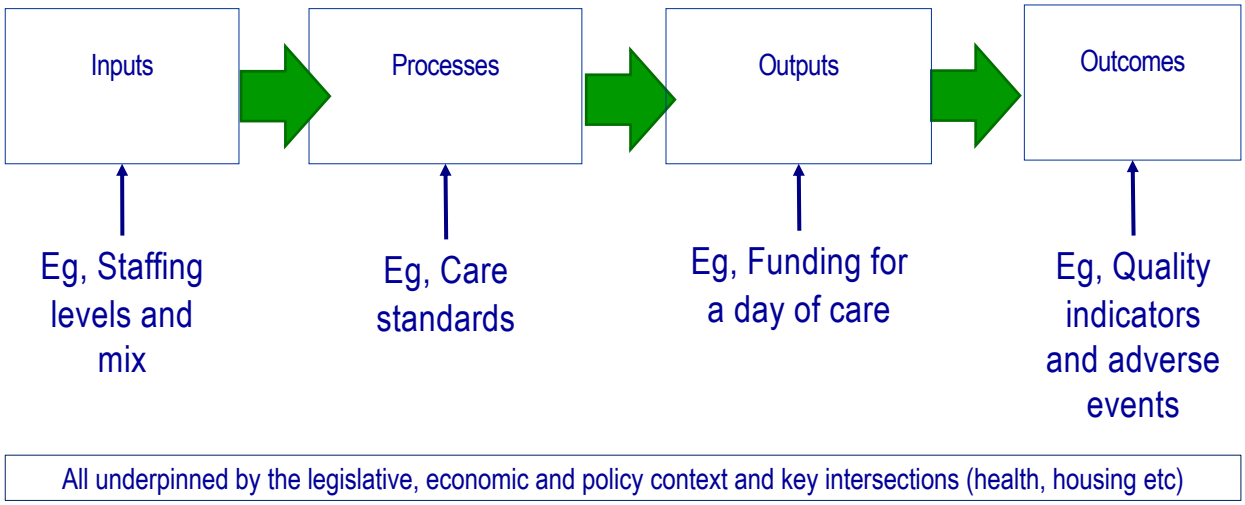
Intervention points in the aged care system



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The Centre for Health Research Illawarra Shoalhaven Population (CHRISP) and the Illawarra Health Information Platform (IHIP)

A regional research partnership

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The partnership

- Research partnership – Illawarra Shoalhaven Local Health District (ISLHD) & AHSRI, University of Wollongong (UOW)
  - Centre for Health Research Illawarra Shoalhaven Population (CHRISP) is the team
  - Illawarra Health Information Platform (IHIP) is a powerful stand alone IT system
- Core business of the partnership is:
  - Provide access to high quality health data
  - Build capacity for research and development
  - Undertake research
    - Population health, health services and clinical research
  - Translate research findings into policy and practice

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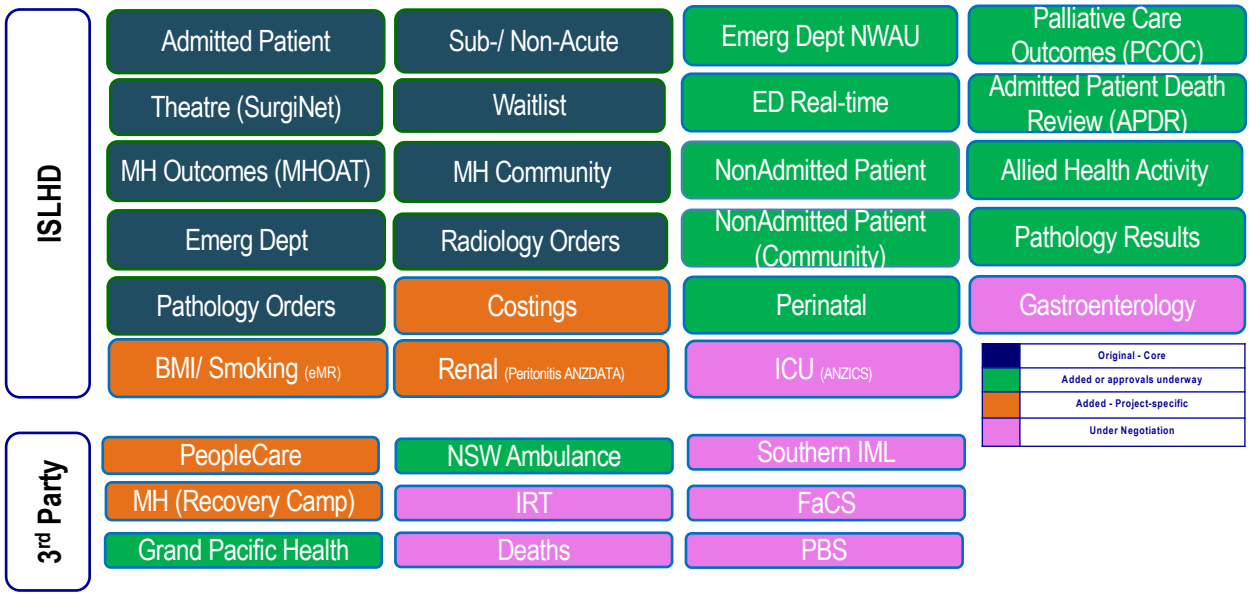
IHIP Data Sets



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CHRISP 2016-19

Approved Projects	33 (12 completed)
Brief Reports	23
Conference Presentations & invited speaker presentations	71
Journal articles	14
Research Cafes/Meet and Greet	77
Grants	13
Student supervision (HDR & Undergraduate)	12 HDR; 9 other (10 completions)
Mentoring (ISLHD Research Central staff)	4
Translational Research Workshops	5

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Ethics and other approvals

- ISLHD/ UOW ethics approval to establish non-identifiable health databank & records linkage system, plus linkage protocols
- With that approval in place, simplified processes for:
  - Individual projects
  - Linkage of third party data
- Make it easier for clinicians to undertake research as part of their routine work
- But significant bureaucratic and cultural issues at both Ministry and LHD levels had to be overcome

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A case study

ED Frequent Flyers

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Frequent ED attenders

Context

Perception that:

1.Emergency Departments are clogged by large numbers of patients who don't need to attend and

2.LHDs can prevent them attending

Aims:

- Describe longitudinal trends, including whether frequent attenders remain frequent attenders (most studies cross-sectional)
- Describe demographic, clinical profile of ISLHD frequent attenders
- Identify risk factors

Methods:

- Retrospective longitudinal analysis of 10 years (05/06-15/16) of ED presentations to ISLHD EDs
- Frequent = 7+ visits to any ISLHD ED in 12-month window

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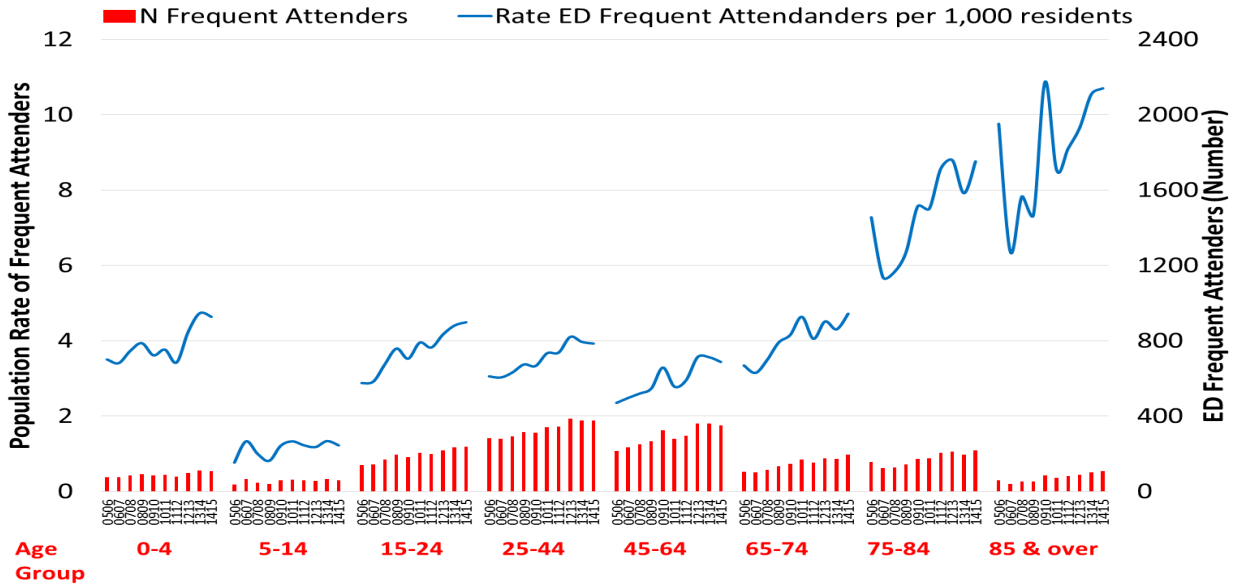
Frequent ED attenders are increasing

(but mostly in those aged 75 and older)



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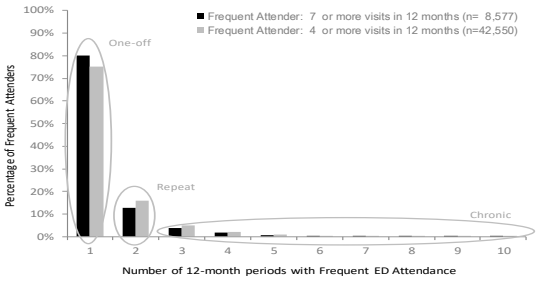
Contrary to popular belief, very few people are ED frequent flyers

- ~ 400,000 people in the ISLHD
- Only 8,577 residents over 10 years were 'frequent flyers' who attended 7 or more times a year (< 3% of residents)
- This 3% made ~ 180,000 visits over 10 years, accounting for 15% of ED visits
- 80% of frequent flyers only met this threshold once
- 10% of frequent flyers met this threshold twice
- Only 607 residents were frequent attenders for two+ years (38,000 visits over 10 years)



- 189 people made 18 or more visits pa

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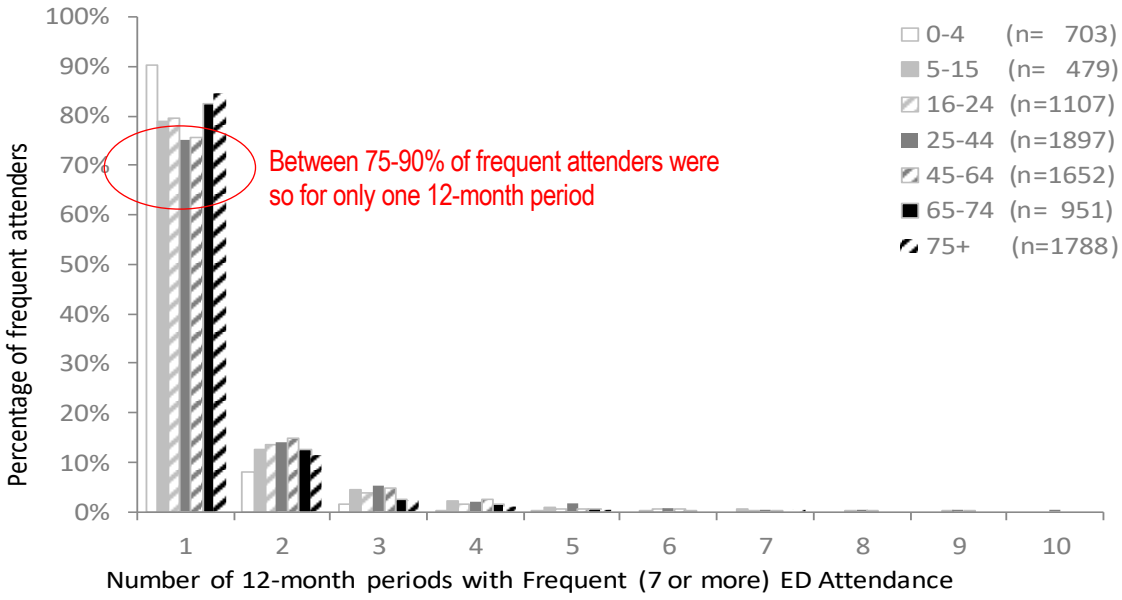
The pattern is consistent across age groups



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Risk factors

- Male, not insured, Aboriginal, low triage, low socio-economic
  - Social determinants, not health conditions
- Chronic frequent flyers – mental health, 25-44 year olds, no partner

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Research translation implications

- One size solutions to reducing unnecessary ED attendances will not work
- Need targeted ED diversion strategies for different age groups and for different social needs
- Strategies are required outside ED, not in it

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Open access Research

BMJ Open

Here one year, gone the next? Investigating persistence of frequent emergency department attendance: a retrospective study in Australia

Luise Lago,[1] Victoria Westley-Wise,[1,2] Judy Mullan,[1] Kelly Lambert,[1] Rebekah Zingel,[3] Thomas Carrigan,[4] Wayne Triner,[4] Kathy Eagar[5]

To cite: Lago L, Westley-Wise V, Mullan J, *et al*. Here one year, gone the next? Investigating persistence of frequent emergency department attendance: a retrospective study in Australia. *BMJ Open* 2019;**9**:e027700. doi:10.1136/bmjopen-2018-027700

► Prepublication history and additional material for this paper are available online. To

ABSTRACT

Objectives Patients are presenting to emergency departments (EDs) with increasing complexity at rates beyond population growth and ageing. Intervention studies target patients with 12 months or less of frequent attendance. However, these interventions are not well targeted since most patients do not remain frequent attenders. This paper quantifies temporary and ongoing frequent attendance and contrasts risk factors for each group.

Design Retrospective population-based study using 10 years of longitudinal data.

Strengths and limitations of this study

- Our unique, longitudinal data platform has enabled this study on long-term patterns of attendance to all emergency departments (EDs) within a single geographic region by frequent attenders over 10 years.
- We considered long-term frequent attendance patterns, which allowed for patients discontinuing frequent attendance and resuming later on.
- We contrasted sociodemographic and risk factors for temporary versus ongoing frequent attendance

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CHRISP Research Translation Model V1: hospital readmissions as an example

	What factors contribute to avoidable hospital readmissions?	Which factors are amenable to intervention? What can we change? How do we implement changes? How do we evaluate it?
Consumers (patients, families, carers, communities)		
Providers (clinicians, professional societies and health care organisations)		
Health system (policies, governance, funding, structures and processes, networks, relationships)		

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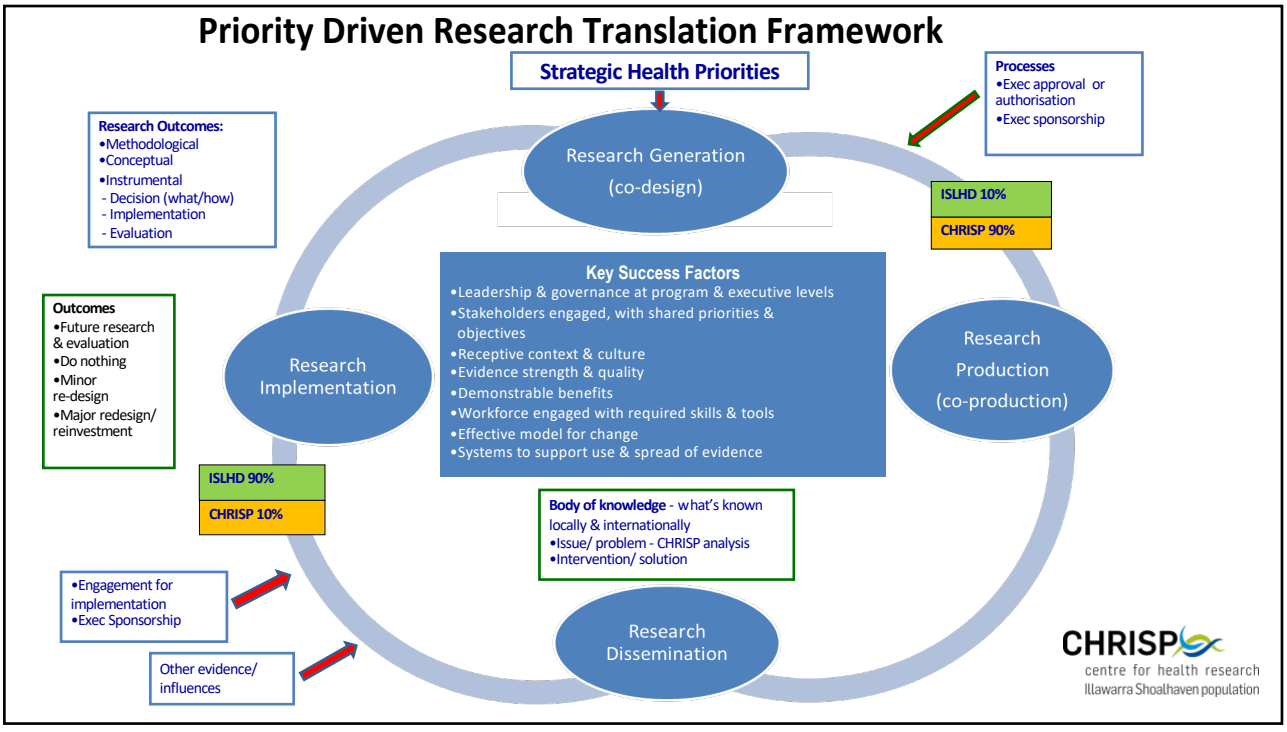
Priority Driven Research Translation Framework



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Four phases

- Research generation
- Research production
- Research dissemination
- Research translation

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Key Success Factors

- Leadership & governance at program & executive levels
- Stakeholders engaged, with shared priorities & objectives
- Receptive context & culture
- Evidence strength & quality
- Demonstrable benefits
- Workforce engaged with required skills & tools
- Effective model for change
- Systems to support use & spread of evidence

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Can health services research help solve real life problems facing the Australian health system?

A: Yes, but...

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But…

- Health care is really important and there are many other influences on the health system than just research evidence
  - health care is a 'strife of interests'
- Even when the evidence is accepted, translating evidence into policy and practice is difficult to achieve (eg, hand washing)

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A strife of interests

- 3 key stakeholders
  - payers/governments (different values at different times)
  - clinicians (different values at different times)
  - community/consumers (different values at different times)
- Positive change only occurs when at least two of these three agree

Sidney Sax S. 1984 A Strife of Interests, Allen and Unwin, Sydney.

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Conclusion

- HSR can help with real life problems facing the Australian health system but only when:
  - the research is multidisciplinary
  - health decision-makers can articulate the problem they want to solve
  - researchers know how to blur the usual academic distinction between 'investigator-driven' and 'priority-driven' research
  - there is a coherent stream of research, not just reactive
  - researchers work in partnerships with:
    - policy makers and/or
    - providers and/or
    - consumers

and can get any two of them to agree

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