

MEET *the* “MINDS” VIRTUAL LECTURE SERIES



Moving towards health

Helping the most at-risk patients in hospital get moving

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WE ARE ON KAURNA LAND...

We recognise that Flinders University operates on Indigenous peoples' traditional lands and waters, and acknowledge their continued responsibility to care for country at the University's various teaching locations, including the lands and waters of the following peoples: Kaurna (main campus at Bedford Park), Arrernte, Boandik, Bungarla, Gunditjmara, Jawoyn, Larrakia, Nauo, Ngarrindjeri, Peramangk, Ramindjeri, Wurundjeri, Yolgnu.

TODAY, OVER 300
ABORIGINAL AND
TORRES STRAIT
ISLANDER STUDENTS
ARE ENROLLED
IN COURSES AT
FLINDERS UNIVERSITY.



'Look at the patient lying alone in bed. What a pathetic picture he makes. The blood clotting in his veins. The lime draining from his bones. The scybola stacking up in his colon. The flesh rotting from his seat. The urine leaking from his distended bladder and the spirit evaporating from his soul.

Teach us to live that we may dread unnecessary time in bed.

Get people up and we may save patients from an early grave.'

Asher R. 'The dangers of going to bed.' Br Med J. 1947 Dec 13;2(4536):967

Florence Nightingale...

arrangements of the building. There could be no excuse for complacency. Even St Thomas's, with its pavilions of air, had been revealed, in a report of 1878, to be far from hygienic. 'It is now a well-known rule,' Florence had written in a note to herself: 'keep no patient in hospital a day longer than is absolutely necessary . . . And even this may be days too long. The patient may have to recover not only from illness or injury but from hospital.'

In the last phase of her working life, Florence would redouble her

Deconditioning is the physical, psychological and functional decline that occurs as a result of prolonged bed rest (or **very low levels of activity or long bouts of sitting or lying**)

It is associated with a range of physiological (**and functional**) impacts

- Loss of muscle mass and strength (**ability to stand up and move**)
- Bone density (**risk of fracture**)
- Cardiovascular, metabolic, respiratory and cognitive changes (**adverse events and delirium**)

It is very commonly experienced through hospitalisation

Though it can affect people of any age, **the effects on older people can be more severe, rapid and can often be irreversible**

FUNCTIONAL ABILITIES

Independent



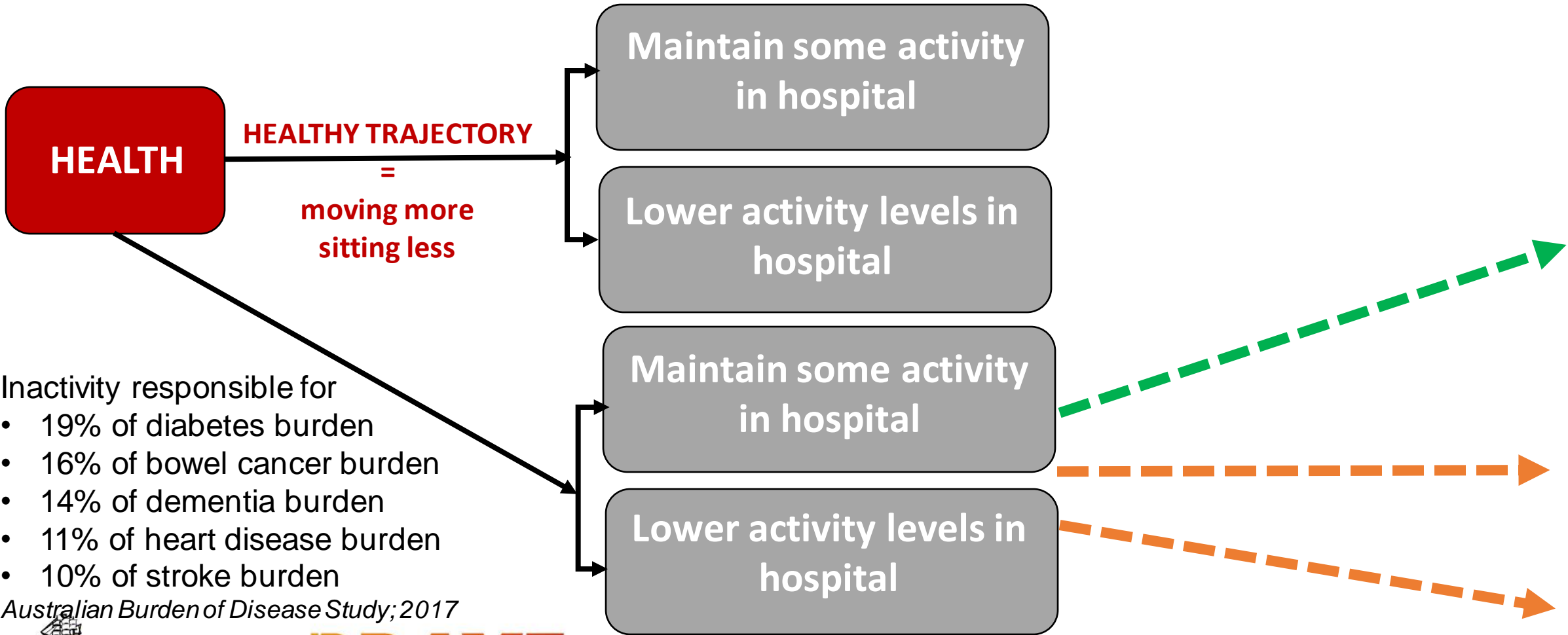
“Minor illness”
eg UTI

Fit older person

Frail older person

Dependent





Hospitalisations are increasing at a rate beyond population growth
There are **4 million acute hospitalisations each year**
50% of patient bed days are for people aged ≥ 65 years.

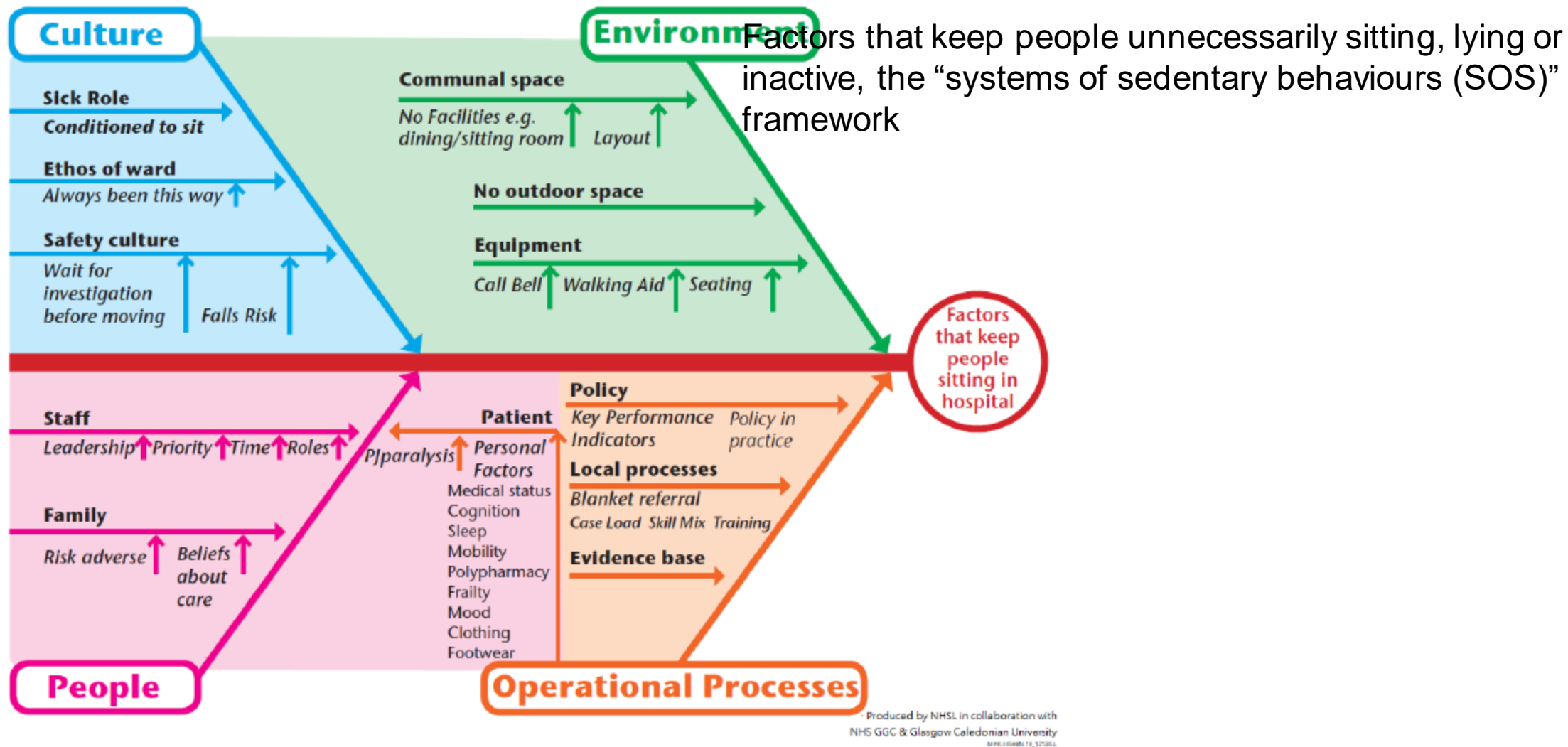
(Australian Institute of Health and Welfare, Admitted Patient care data 2018-19)

Adults may spend as much as **87-100% of their time sitting or lying down**, when acutely hospitalised for surgery or an illness

Baldwin et al, *Phys Ther.* 2017;97:1-22; Fazio et al, *Appl Nurs Res.* 2020;51:151189

In our study of ICU survivors at hospital discharge, patients spent ~47 minutes per day upright on their feet with only 7 minutes walking (very slow pace, 222 steps per day)

Baldwin et al, *Austr Crit Care.* 2020;33(3);272-280



Factors that keep people unnecessarily sitting, lying or inactive, the “systems of sedentary behaviours (SOS)” framework

Figure 2. Operationalisation of the SOS framework applied to the problem of sedentary behaviour in hospital. Four clusters of factors; Culture, Environment, People, Operational Process determine sedentary behaviour in hospital. Example of factors for each of the clusters and their relationship are presented.

Chastin et al. AMMS Med Sci 2019;6:67-75

Policy

Developing physical activity and sedentary behaviour guidelines for older adults in acute hospitals



Individual (patient level) interventions

- “INDEPENDENCE” trial (PhD Candidate)
ACTRN12619001367134p; Han et al, *BMC Geriatr.* 2020;10:e040146
- Other innovative approaches in the pipeline

Sustainable organisational and cultural change at ward level

- Evidence-based multi-disciplinary delirium prevention program



Practice

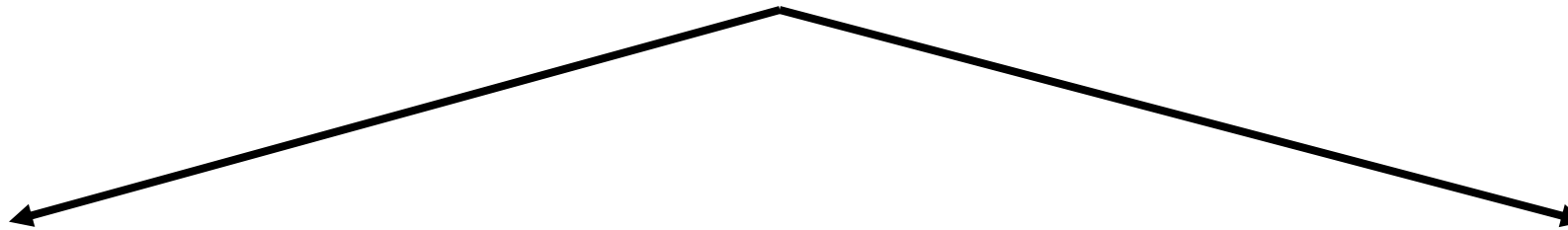
Why a guideline project?

- No exiting recommendations
- Recommendations, guidelines and policies
 - can powerfully shape behaviour (patients and staff) and clinical care (Chastin et al, *AIMS Med Sci.* 2019;6:67-75)
 - support consistency in healthcare delivery (Woolf et al, *BMJ.* 1999;318:527)
 - have potential for wide-spread uptake and impacts on health/hospital outcomes
- There may be some common solutions and best-practice principles to highlight with a guideline (Chastin et al, *AIMS Med Sci.* 2019;6:67-75)

Stage 1 = prioritise problems

4-Round online Delphi consensus survey

Expert and stakeholder consensus opinion: n=49 people from 9 countries representing researchers, medical/nursing/physiotherapy clinicians, academics from national activity guideline development teams, and patients (older adults)



Draft recommendations for older adults' physical activity and sedentary behaviour during hospitalisation for an acute medical illness; 29 statements made

Core Domains (important *types of outcomes*) to measure in research on hospital inactivity in acutely ill older adults; 4 key areas/different categories of outcomes identified

Baldwin et al, *Int J Behav Nutr Phys Act.* 2020;17:69.

Baldwin et al, *Arch Phys Med Rehabil.* 2021;102(4):664-674

Draft recommendations

Overarching principles

-
- A person-centred approach should be taken to engage and enable older adults to be physically active and minimise sedentary behaviour during hospitalisation.
 - Enabling physical activity and minimising sedentary behaviour in hospital should be a shared responsibility; all health care professionals, people at different organisational levels, caregivers and relatives, volunteers, and older adults have abilities to contribute.
 - When encouraging physical activity and minimising sedentary behaviour, people should:
 - act with sensitivity and respect by partnering with, supporting and being ready to hear the perspective of older adults.
 - be culturally responsive and mindful of older adults' physical and mental capabilities.
 - Opportunities for physical activity and minimising sedentary behaviour should be incorporated into the daily care of older adults with a focus on function, independence and activities of daily living.

4-Round online Delphi consensus survey
Expert and stakeholder consensus opinion: n=49 people from 9 countries
representing researchers, medical/nursing/physiotherapy clinicians,
academics from national PA/SB guideline development teams, and
patients (older adults)

Consensus based

Draft recommendations for older adults' physical activity and sedentary behaviour during hospitalisation for an acute medical illness'

Core Domains (**important *types of outcomes***) to measure in research on hospital inactivity in acutely ill older adults

Evidence based

**GRADE
methodology**

Literature review

Rating the quality
(certainty) of
available
evidence



Consider the
evidence and context

Formulate
recommendations

- “The panel recommends that... should...”
- “The panel suggests that... should...”
- “The panel suggests **not** to...”
- “The panel recommends **not** to...”

“Physical activity in hospital care gives a sense of freedom, confidence in recovery and mental wellbeing”

Koenders, *J Physiother*, 2021;67:115



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BRAVE
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