



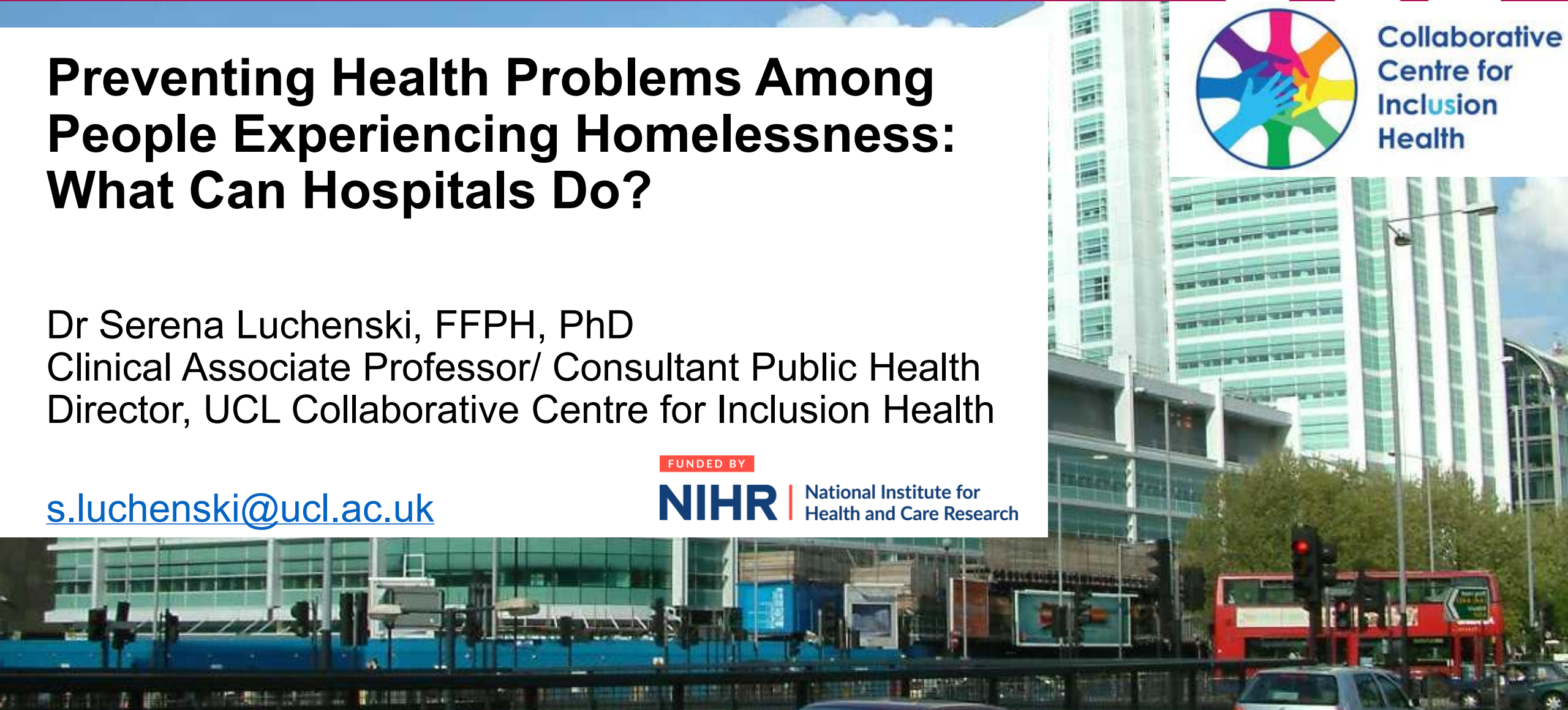
Preventing Health Problems Among People Experiencing Homelessness: What Can Hospitals Do?

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FUNDED BY

NIHR | National Institute for
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Case study: Jerome

- **Context:** Jerome, a 53-year-old man with a disability, experienced homelessness for over 10 years in London. His chronic homelessness has significantly impacted his health and access to care.
- **Situation:**
 - **Acute Illness & Premature Discharge:** Jerome was hospitalised with severe pneumonia after sleeping rough. Though improving, he was discharged abruptly at midnight on a Sunday, despite having nowhere to go and being told previously he should wait for a housing team until Monday.
 - **Challenges with Medication Adherence:** Discharged with 10 days of four-hourly antibiotics, Jerome struggled to take them on the street due to lack of food, inability to tell time, and no secure storage. His antibiotics were stolen on day four.
 - **Barriers to Continued Care:** When he sought more antibiotics, the hospital directed him to a GP, despite knowing he wasn't registered. An outreach team eventually helped him.
 - **Missed Opportunities:** During his 9-day hospital stay, the promised homeless team never contacted him. His housing situation and wider health concerns were not addressed by hospital staff, despite their awareness of his homelessness and statutory duty to refer.
- **Impact:** Jerome felt "empty, uncared for, and suicidal" due to his experience, highlighting systemic failures and the severe negative impacts of inadequate care for homeless individuals.

People experiencing homelessness



High health needs
+ poor access to
primary care =
high rates of
hospital care



Housing status
not routinely
recorded in
hospital records

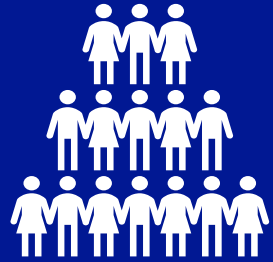


Hospital planning
based on poor
data and poor
implementation of
evidence-based
interventions

Aim: to generate evidence for a preventative approach to hospital care for people experiencing homelessness using administrative data and integration with community services.

1. What is the **need** for hospital-based preventative interventions?
 - Estimate the **magnitude of hospital admissions** in England
 - Describe **patterns of hospital admissions** as opportunities, needs, and inequities for prevention
2. What effective **interventions** already exist to address these needs?
3. What are the key issues relating to the **implementation** of these interventions?
4. What are the **implications** for policy, practice, advocacy, and research?

Study Design



Numbers of Admissions
(Multiple Systems Estimation)



Reasons for Hospital Admissions
(Descriptive Epidemiology)

PATIENT AND PUBLIC INVOLVEMENT AND CLINICAL EXPERTS



Effectiveness of Interventions
(Systematic Review)



Implementation of Prevention
(Qualitative Interview Study)

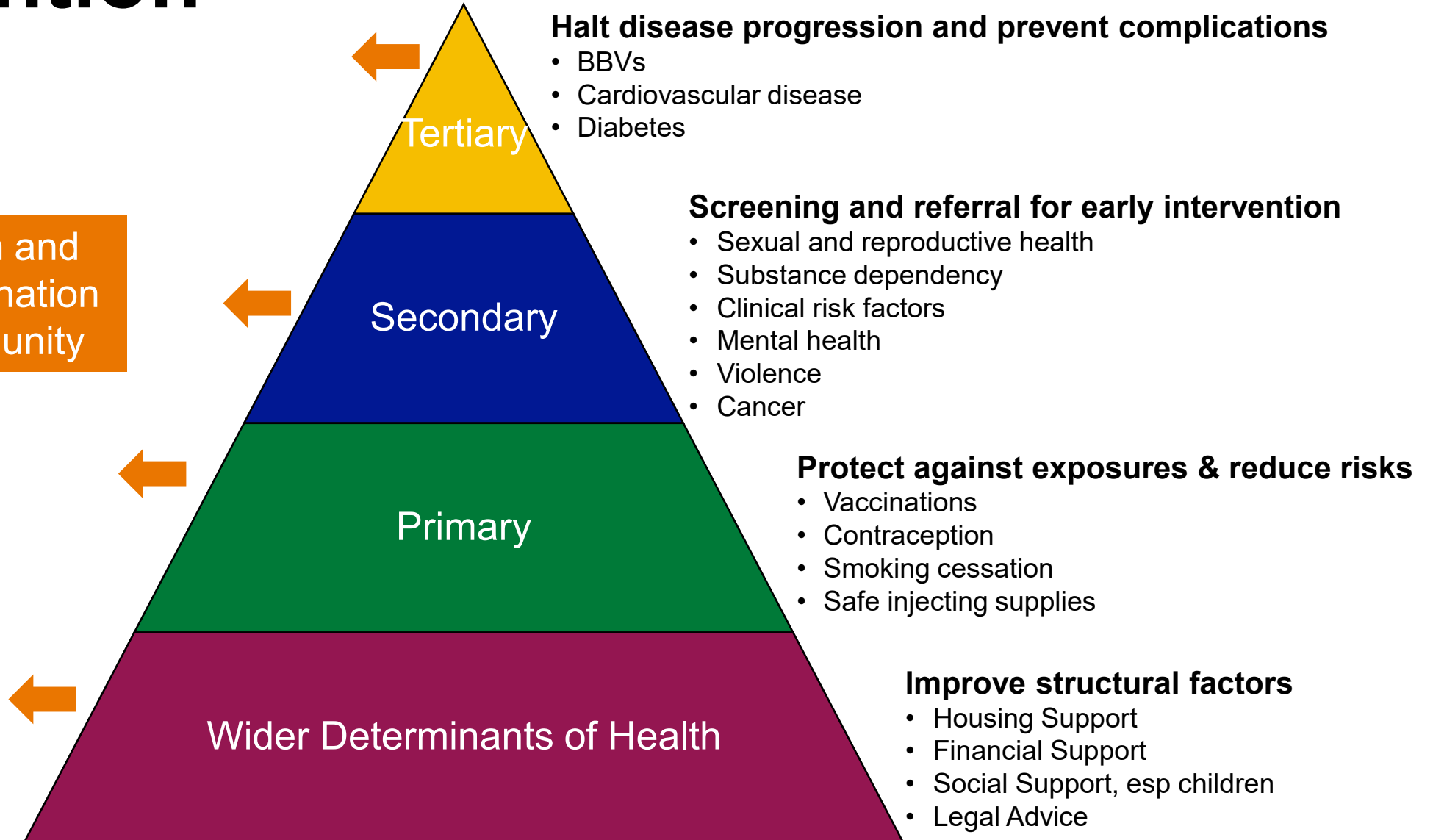
What does prevention look like in a hospital?

Health and **Social** interventions that:

- Fall **outside** of the primary acute response
- Can **prevent future ill health and unplanned hospital care**, and
- Are considered **feasible** for implementation in the hospital context

Prevention

Integration and care coordination with community



Study 1: Estimating the magnitude of hospital admissions in England

Using innovative statistical methods (multiple systems estimation), we can estimate how many admissions are unobserved, by examining the overlap between different homeless codes.

BMJ Public Health

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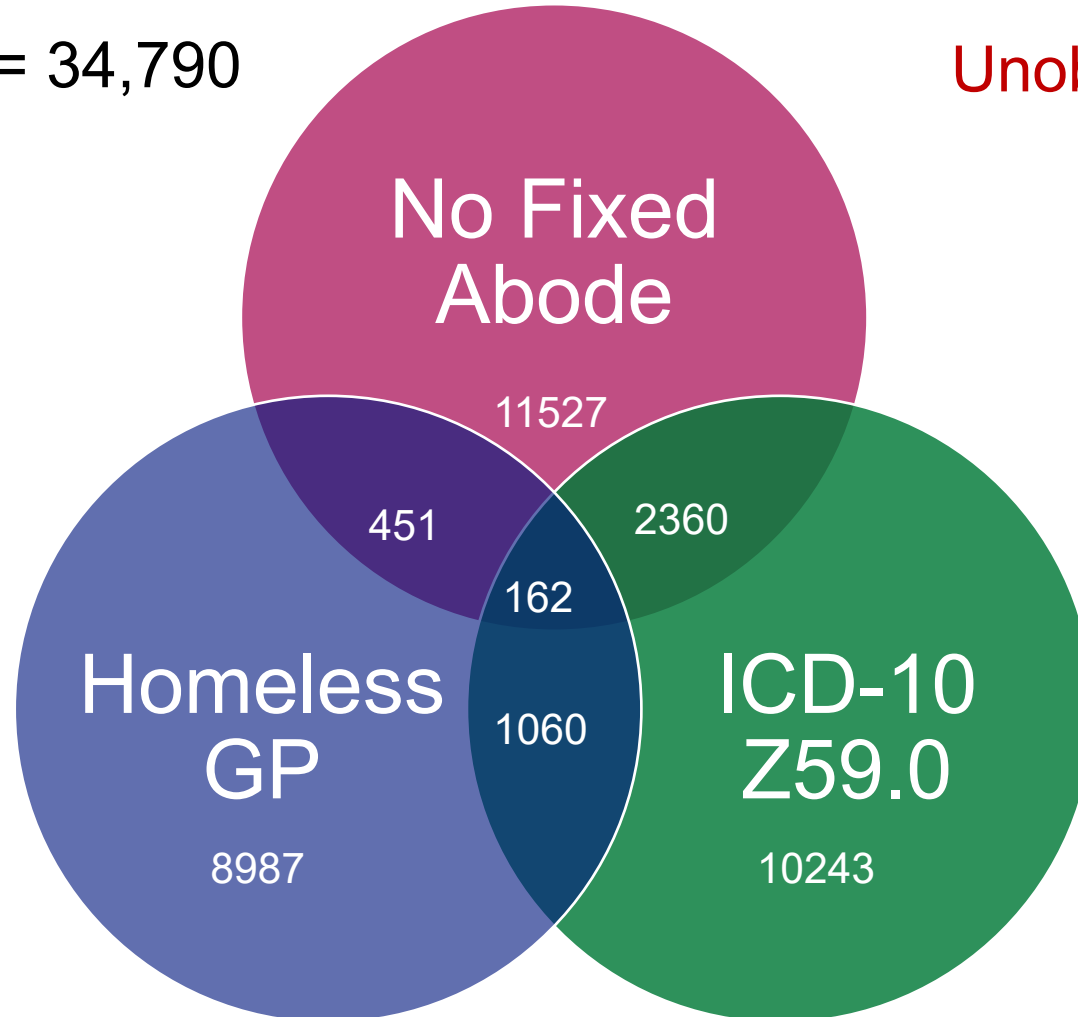
Estimating the scale of hospital admissions for people experiencing homelessness in England: a population-based multiple systems estimation study using national Hospital Episode Statistics

[Author affiliations](#) · [Serena April Luchenski](#) ¹  , [Dankmar Böhning](#) ² , [Robert Aldridge](#) ^{3,4} , [Fiona Stevenson](#) ¹ , [Shema Tariq](#) ⁵ , [Andrew C Hayward](#) ^{1,6} 

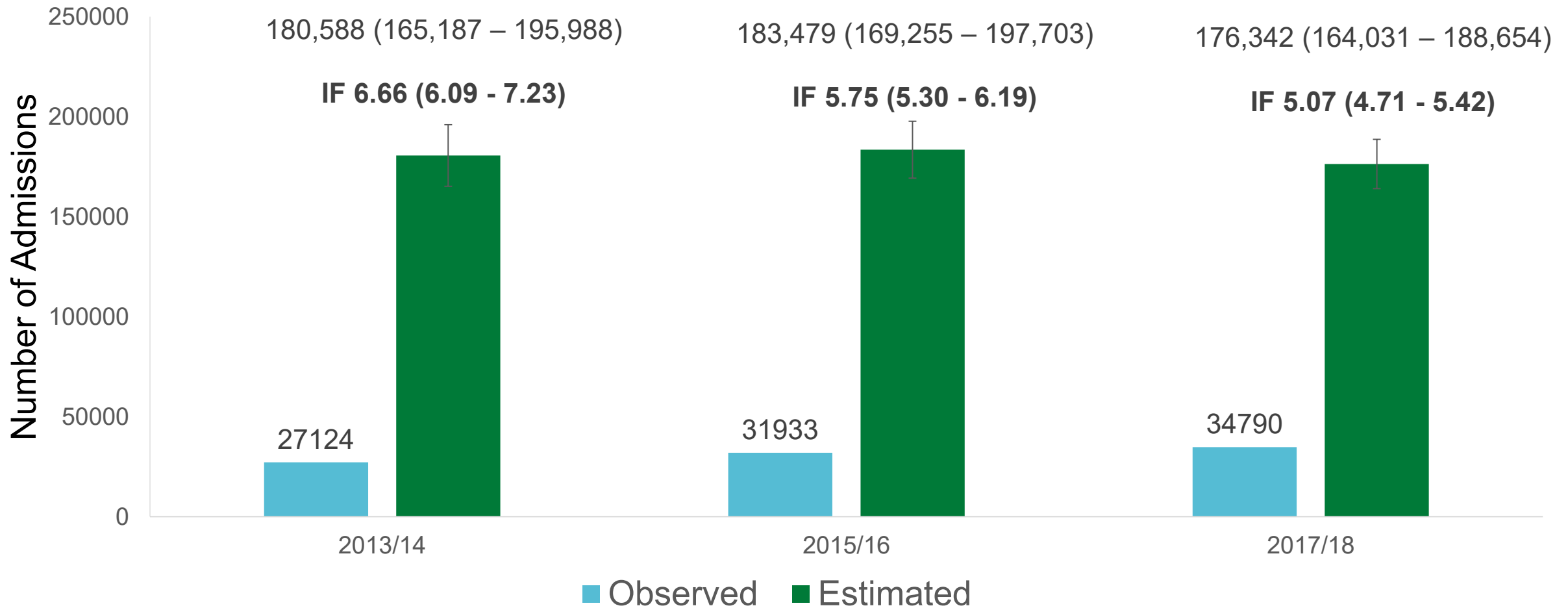
Observed Homeless Admissions

Observed = 34,790

Unobserved = ?



The estimated number of admissions was 5 to 6 times greater than directly observed



Inflation Factor (IF) = total estimated/ observed (95% Confidence Interval)

Study 2: Patterns of hospital admissions in England, 2013 – 2018

1. **Opportunities** = how can we find people experiencing homelessness who have been admitted to hospital?
2. **Needs** = what are the admission rates for different causes of disease?
3. **Inequities** = how does the admission rate compare to the housed population (admission rate ratio)?

Opportunities for Prevention: profiles of who is admitted (among observed)

Among people who are admitted, people experiencing homelessness are:

Demographics: often younger, White, and male

Admission characteristics: greater proportion of emergency admissions; higher frequency of admission; more likely to self-discharge

Likely to be admitted for: Mental health; injury; poisoning and external causes; infectious diseases; diseases of the skin and subcutaneous tissue

Needs and Inequities for Prevention

Numerator	Number of Admissions in HES 2017/18	Population Size (Denominator)	Denominator Definition	Overall Crude Admission Rate per 1000 population per year	Overall Admission Rate Ratio (vs housed)
<i>Estimated</i> homeless admissions	176,342 [95% CI 164,031 – 188,654]	200,609	'Core' homelessness	879.0 [95% CI 817.7 – 940.4]	3.2 [95% CI 3.0 – 3.4]
<i>Estimated</i> homeless admissions	176,342 [95% CI 164,031 – 188,654]	50,144	'Visible' homelessness	3516.7 [95% CI 3271.2 – 3762.2]	12.7 [95% CI 11.8 – 13.6]
<i>Housed</i> admissions	15,514,367	44,168,935	General Adult Population	277.2	1.0

'Core' homelessness: Crisis's Homelessness Monitor defines core homelessness as the most acute and immediate forms, encompassing rough sleeping, living in places not intended as residential accommodation (like cars or sheds), staying in homeless hostels, refuges, and shelters, being placed in unsuitable temporary accommodation (such as B&Bs), and sofa surfing.

'Visible' homelessness: people who are sleeping rough and/or living in hostel accommodation only (excluding more hidden forms of homelessness which less likely to be identified by hospital staff)

Needs and Inequities for Prevention

- Using the ‘core’ homeless population denominator, the crude admission rate is much higher than for people who are housed across every category of disease when accounting for underestimation (inflated estimates)
- These inequities would be even greater if we could adjust for age, given people experiencing homelessness are on average younger

Males Primary Diagnosis	Needs for Hospital Care			Inequities in Hospital Care Needs	
	Homeless Admission Rate per 1000 pop (95% CI) ¹		Housed Admission Rate per 1000 pop (95% CI) ²	Crude (Unadjusted) Admission Rate Ratio (95% CI) ³	
	Observed	Inflated	Comparator	Observed	Inflated
Infections	6.02 (5.62, 6.44)	30.51 (27.47, 33.57)	5.19 (5.16, 5.22)	1.16 (1.09, 1.23)	5.88 (5.32, 6.44)
Neoplasms	9.18 (8.68, 9.69)	46.54 (42.15, 50.93)	41.14 (41.06, 41.21)	0.22 (0.21, 0.24)	1.13 (1.03, 1.24)
Mental	50.63 (49.46, 51.82)	256.70 (235.93, 277.18)	2.56 (2.54, 2.58)	19.79 (19.48, 20.11)	100.35 (92.91, 107.56)
Circulatory	12.43 (11.86, 13.03)	63.04 (57.30, 68.76)	18.04 (17.99, 18.09)	0.69 (0.66, 0.72)	3.5 (3.19, 3.8)
Respiratory	13.03 (12.44, 13.64)	66.07 (60.09, 72.04)	13.66 (13.61, 13.70)	0.95 (0.91, 1.00)	4.84 (4.41, 5.26)
Injury, Poisoning, External	59.38 (58.11, 60.66)	301.04 (276.9, 324.8)	15.14 (15.10, 15.19)	3.92 (3.85, 3.99)	19.88 (18.34, 21.39)

Study 3: What preventative interventions exist to tackle these needs in hospital?

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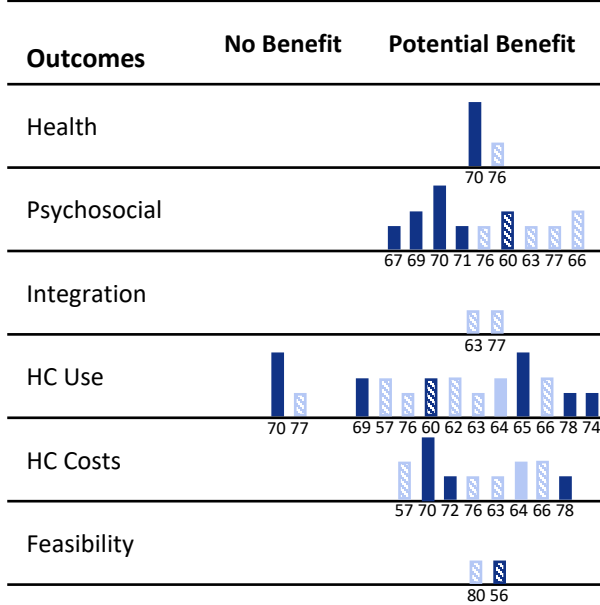
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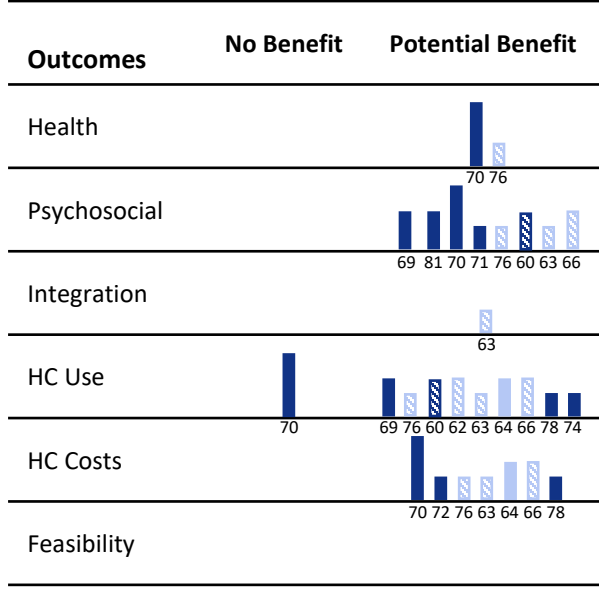
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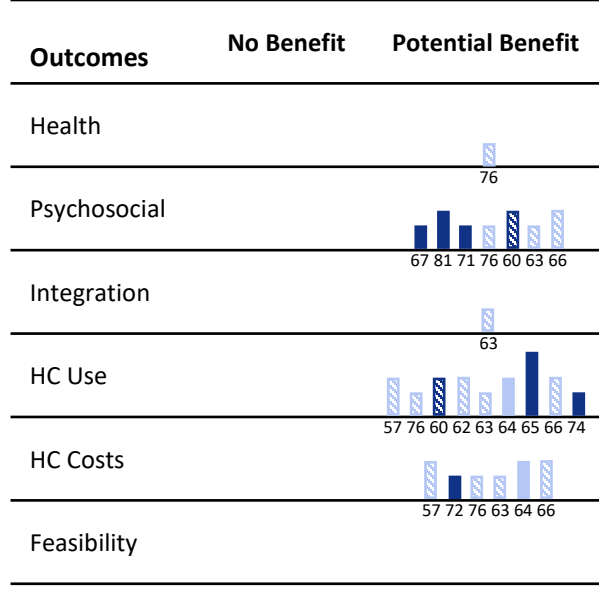
Care Coordination



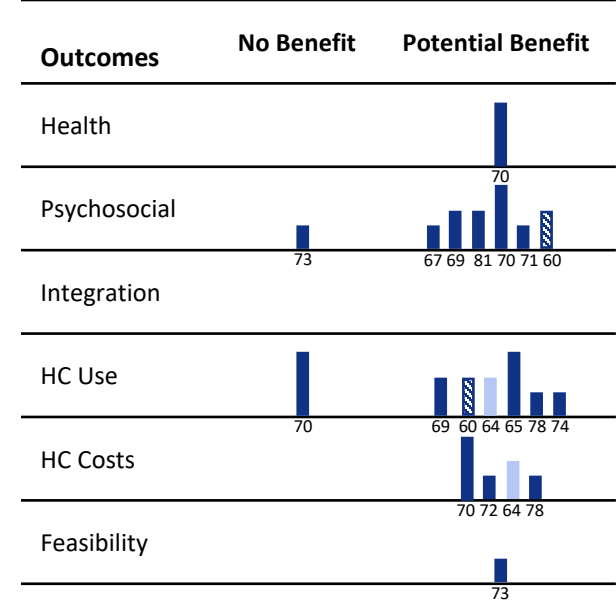
Advocacy, Support, and Outreach



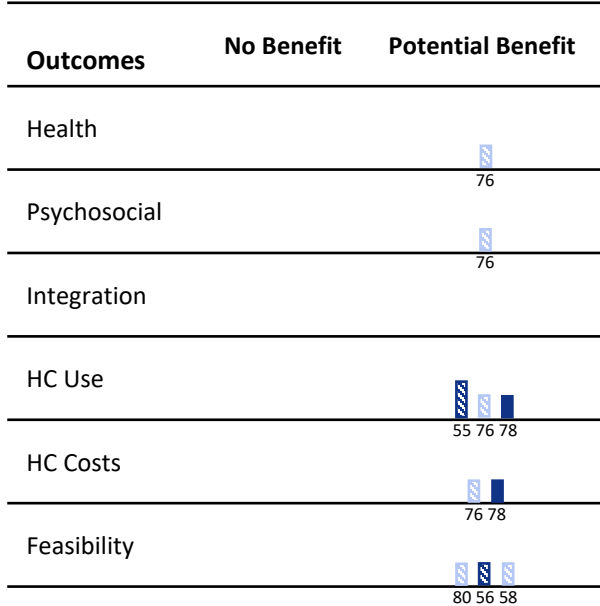
Social Welfare Assistance



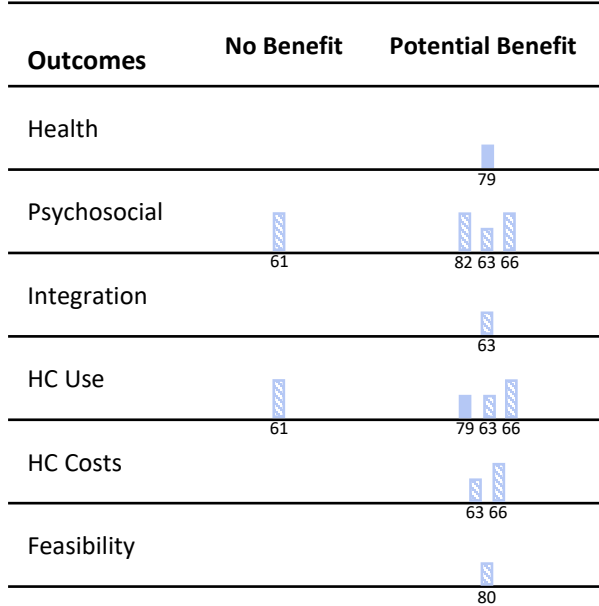
Discharge Planning



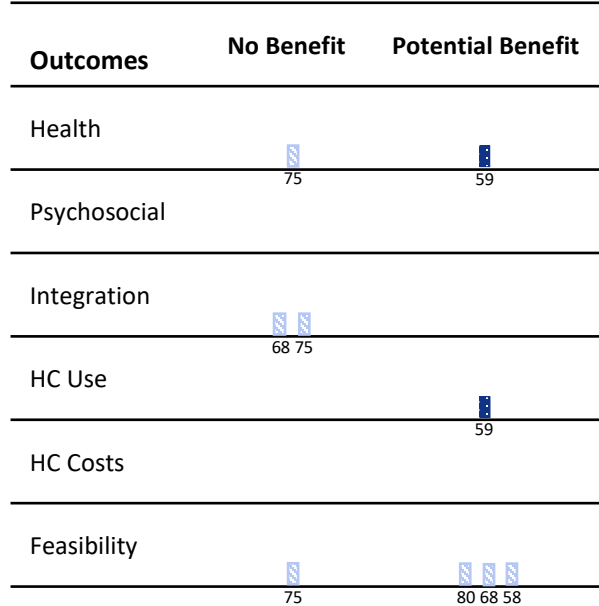
Homelessness Identification



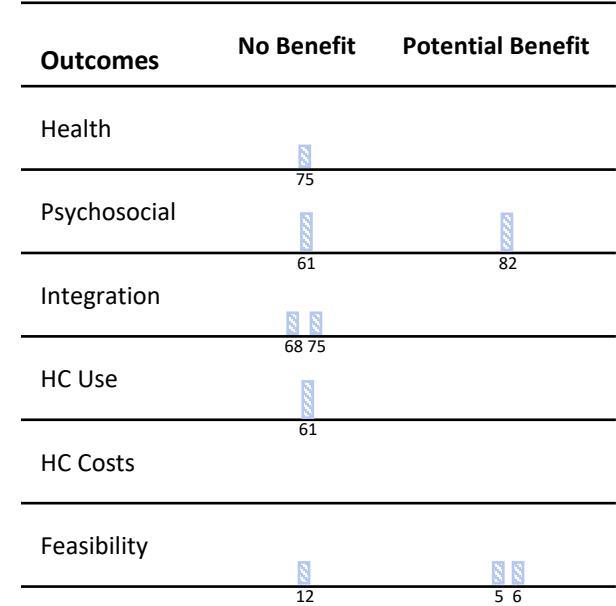
Psychological Therapy and Treatment



Infectious Disease Prevention



Screening, Treatment, and Referral



What works?

- Build trust
- Co-designed and co-delivered with lived experience
- Integrated, holistic, and person-centred interventions
- Upstream prevention and wider determinants
- Improve accessibility – e.g. outreach/in-reach
- Advocacy and empowerment

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REVIEW | VOLUME 54, 101657, DECEMBER 2022

Hospital-based preventative interventions for people experiencing homelessness in high-income countries: A systematic review

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Integrated health and social care for people experiencing homelessness

NICE guideline | NG214 | Published: 16 March 2022

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Research and analysis
Insights from people with lived experience to inform inclusive approaches to health protection
Updated 5 November 2023

Date published: 9 October, 2023
Date last updated: 26 October, 2023

A national framework for NHS – action on inclusion health

So how do we implement these interventions in practice?

Study 4: Qualitative study of hospital-based prevention

20 Health and Care Professionals, 17 People Experiencing Homelessness

Manuscript in preparation, Published in Luchenski Doctoral Thesis, UCL

Participants' views and experiences of preventative care

	Theme
Problems	<ul style="list-style-type: none"> • Stigma • Health and social determinants • Integration and coordination within and between services
What works	<ul style="list-style-type: none"> • Lived experience involvement • Trauma-informed • Person-centred, holistic, and intersectional care • Integration • Specialist teams

	Theme
Barriers and facilitators	National policy and legislation
	Local hospital policies
	Logistics and operations
	Workforce
	Patient factors

Sample Quotes

Problems

From my point of view, just to be treated like a human being. Do you know what I mean? I've been in A&E a few times with my leg and each time I get the same treatment. I was treated with less than respect.

-PEH12 Person Experiencing Homelessness

What Works

What a lot of the adult safeguarding reviews have said is that what hasn't happened is that there hasn't been a joined up multi-disciplinary approach and thinking about that person in a joined-up way. What they're saying is there should be much more using adult safeguarding as a tool for bringing those teams together.

- KS17 Hospital and Community-based Clinician

Barriers/Facilitators

And one thing that's worth pointing out is that we as healthcare professionals have something called a duty to refer, which is a legally mandated requirement to refer people without homes to their local council for placement if they're on the street or if they don't have a house. So between that, the duty to refer, which is relatively new legislation and inserting a safeguarding form that's one way that we can try and kind of force the issue to try and get someone out of a dangerous environment into hopefully a better environment.

- KS08 Hospital Clinician

So what?

What are the implications of all this research?

Key Implications

- The scale of the underestimation of homelessness shown in this study demands improved coding of homelessness – there may be five times as many admissions than observed.
- In the absence of better data, the statistical methods developed here can be applied to improve monitoring, surveillance, service planning, and policy.
- The opportunities analysis tells us where to find people among the admitted population in hospital, but the needs and inequities analysis tell us that we need a comprehensive set of interventions which address all aspects of physical and psychosocial health.
- There are many interventions which could be implemented in hospital to improve housing and healthcare outcomes, including those which adhere to five principles: lived experience involvement, trauma-informed, person-centred and holistic, integrated, and specialist teams.
- Implementation research and quality improvement projects are needed to address identified barriers and leverage facilitators to translate evidence-based interventions into practice.

Final thought

“Housing. When people leave hospital, they've got to go to somewhere and not back onto the street. That's that is the most important thing by far, I think. All the other stuff is brilliant, but a roof is the most important thing.”

- KS13 Peer worker

Thanks to

Mr Stan Burridge
Prof Andrew Hayward
Prof Fiona Stevenson
Prof Rob Aldridge
Dr Shema Tariq
Prof Dankmar Boehning
Dr Jamie Fagg
Dr Binta Sultan
Ms Jo Dawes
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