

Building data to support action on physical health gaps

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Acknowledgements



The traditional owners of the lands on which we live and work



People who have used NSW health services, whose data we use with gratitude and respect



Two important gaps

A health gap

- ▶ Reduced life expectancy
- ▶ Avoidable medical illness
- ▶ Many causes, including health system factors



Risk factors and mechanisms

Access to care: siloing, fragmented care, treatment gaps, barriers to care, poor care quality, and delayed presentation

Socioeconomic disadvantage, trauma, poverty, and minority groups

Stress-diathesis models, chronic stress, HPA axis, inflammation, and epigenetics

Structural inequalities, laws, policies, and barriers to education, employment, and housing

Diagnostic overshadowing

Volitional factors for suicidal behaviour

Gone too soon framework perspectives

Sociological, life course, interdisciplinary, globally diverse, and focused on inequality

Prevention

Prediction

Early detection

Diagnosis

Personalised management

Treatment

Risk factors and mechanisms

Stigma, marginalisation, social exclusion, racism, and mistrust

Multimorbidities, and alcohol and drug misuse

Psychological factors: defeat, humiliation, entrapment, burdensomeness, connectedness, loneliness, and social support

Behavioural factors: smoking, sleep, diet, and physical activity

Media reporting and social media

Iatrogenic harms and side-effects of treatment

Two important gaps?

A health gap

- ▶ Reduced life expectancy
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- ▶ Many causes, including health system factors

An evidence gap

- ▶ Lots of evidence that there is a problem
- ▶ Less evidence about mechanisms, interventions and service models
- ▶ Data to prompt action and improvement
- ▶ Data to monitor change
- ▶ Data to identify priority issues, regions, groups

Overview

- 1. NSW Mental Health Living Longer project**
- 2. Some specific findings**
 - Cancer screening
 - Vaccine preventable conditions
 - Avoidable admissions
 - Surgery
- 3. Developing reporting to support change**
- 4. Next steps and data gaps**



MHLL Project governance

Steering Committee

- System Info and Analytics
- Mental Health Branch
- Chief Psychiatrist
- Population Health
- Centre for Aboriginal Health
- Cancer Institute NSW
- Clinical Excellence Commission
- Agency for Clinical Innovation
- Health Consumers NSW
- Being NSW
- MH Carers NSW
- NSW MH Commission
- LHD MH Director
- Primary Health Networks

Aboriginal Sovereign Steering Committee

- Centre for Aboriginal Health
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Academic advisory group

- USyd, UNSW, UTS, CINSW , UQ
- Erasmus (Rotterdam)
- National Orthopaedic Hospital (London)

InforMH project team

Data to support health system change

Ideally ...

- Actionable
- Recent
- Local
- Detailed

Prevention



Care and support

Cancer screening

Vaccination

Care of acute and chronic medical conditions

Preventing avoidable hospital admissions

Access to surgical care when needed

Access to dialysis and transplantation

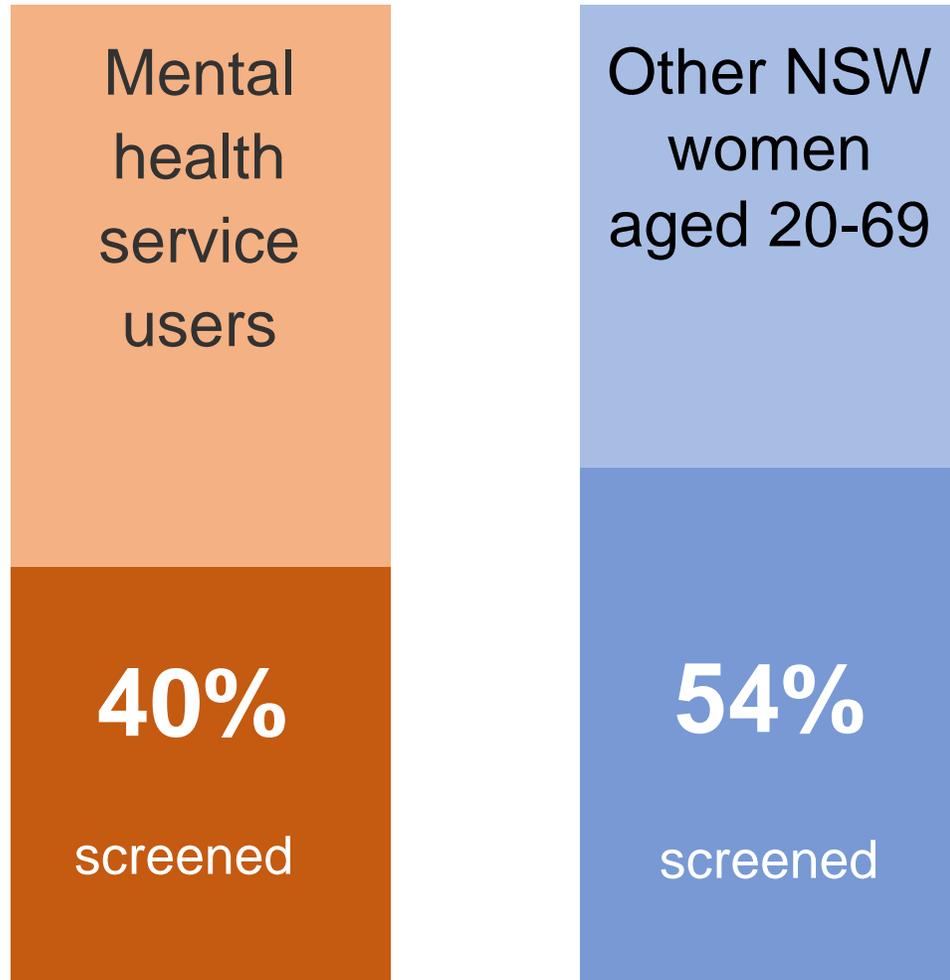
Cancer care

Overview

1. NSW Mental Health Living Longer project
2. **Some specific data and findings**
 - **Cancer screening**
 - **Vaccine preventable conditions**
 - **Avoidable admissions**
 - **Surgery**
3. Developing reporting to support change
4. Next steps and data gaps



NSW 2 year cervical screening participation rate



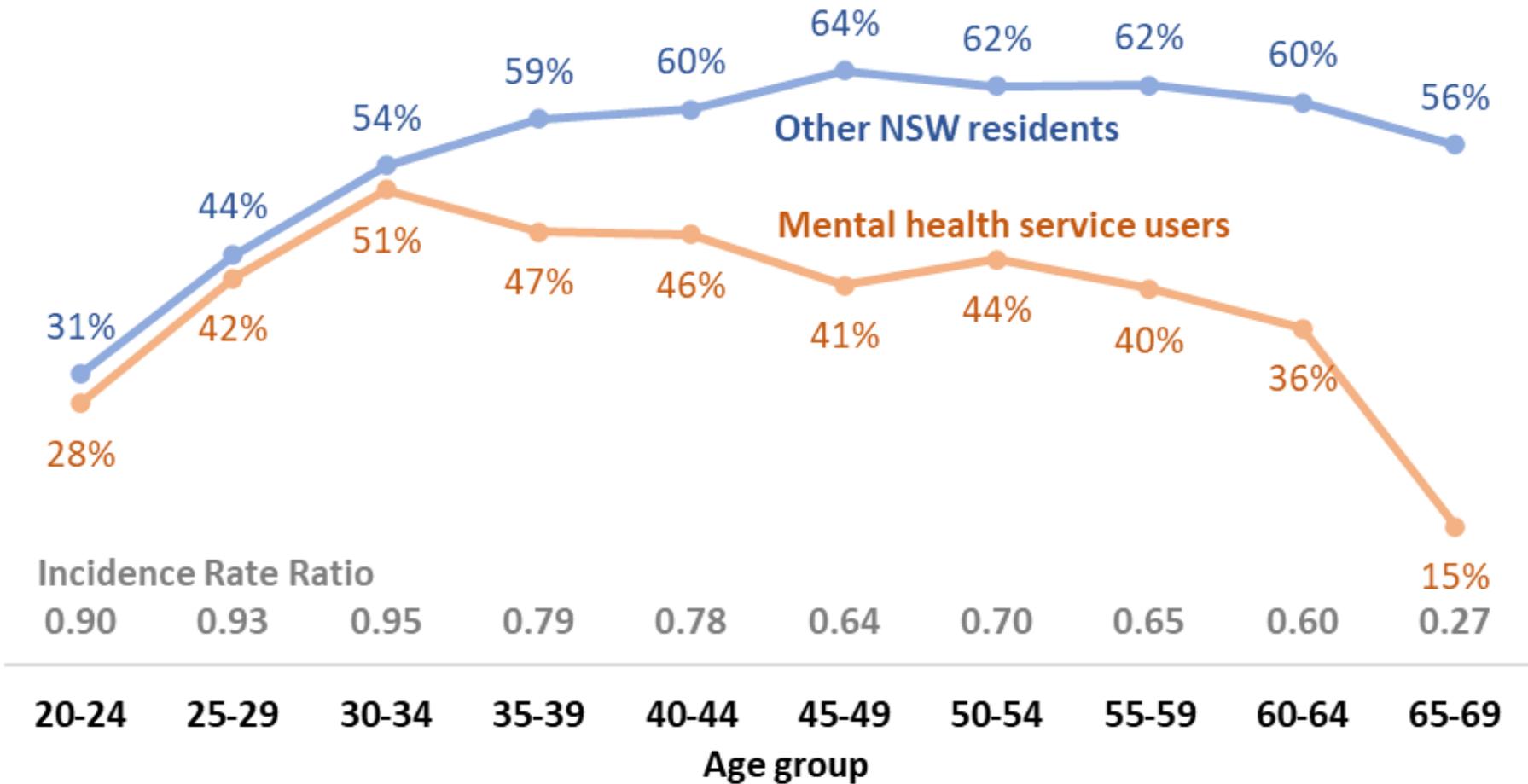
Incidence Rate Ratio (IRR) 0.74

Women aged 20-69 who have recently used NSW mental health services are only 74% as likely to have had cervical cancer screening compared to other NSW women of the same age.

Approx 16,000 more MH service users would have been screened over 2 years if rates matched other NSW women

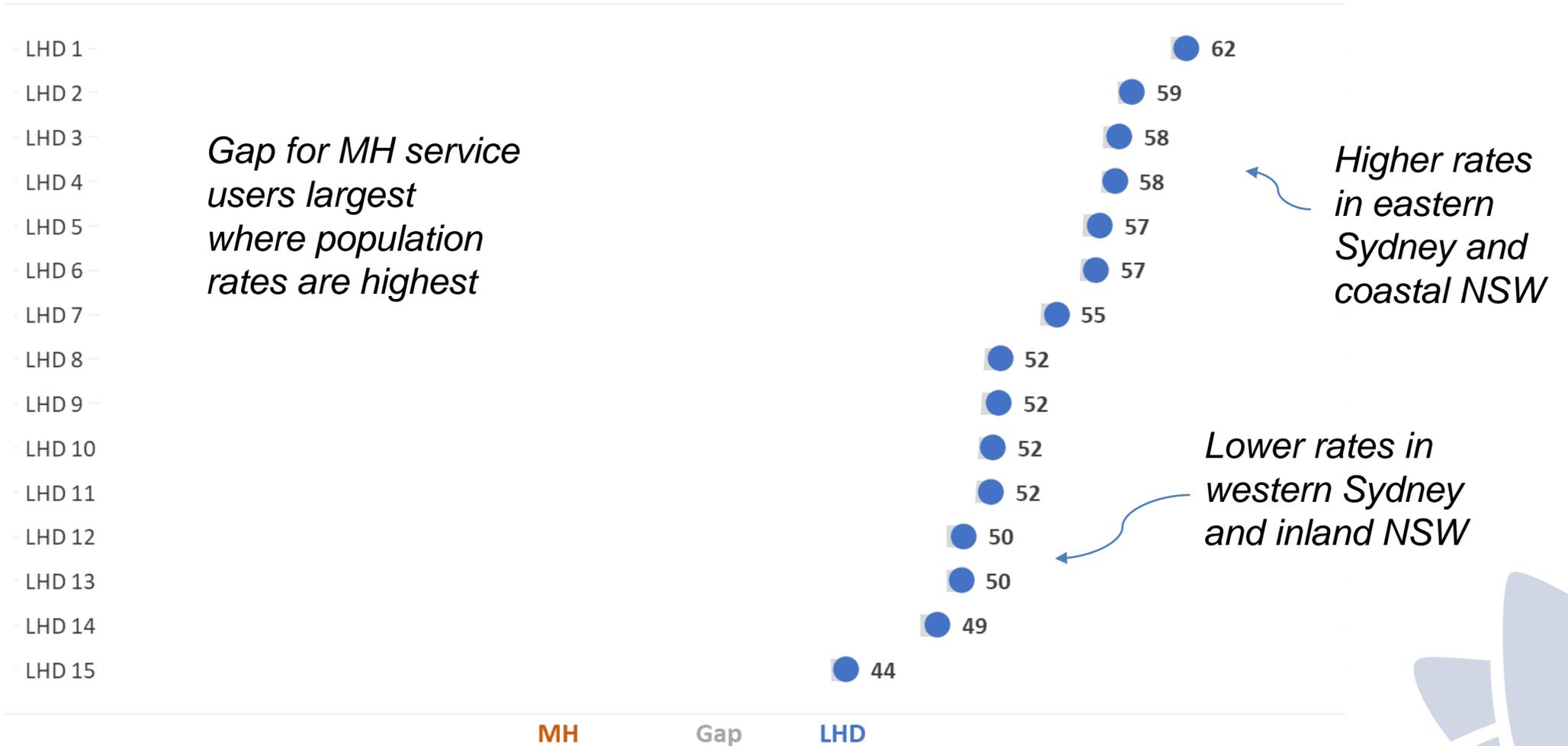
The screening gap is largest for older women

Cervical cancer screening rates



Screening rates vary between health districts

Cervical screening participation (%) by LHD: **Mental health consumers** compared to **overall LHD population**



2 year BreastScreen participation rate

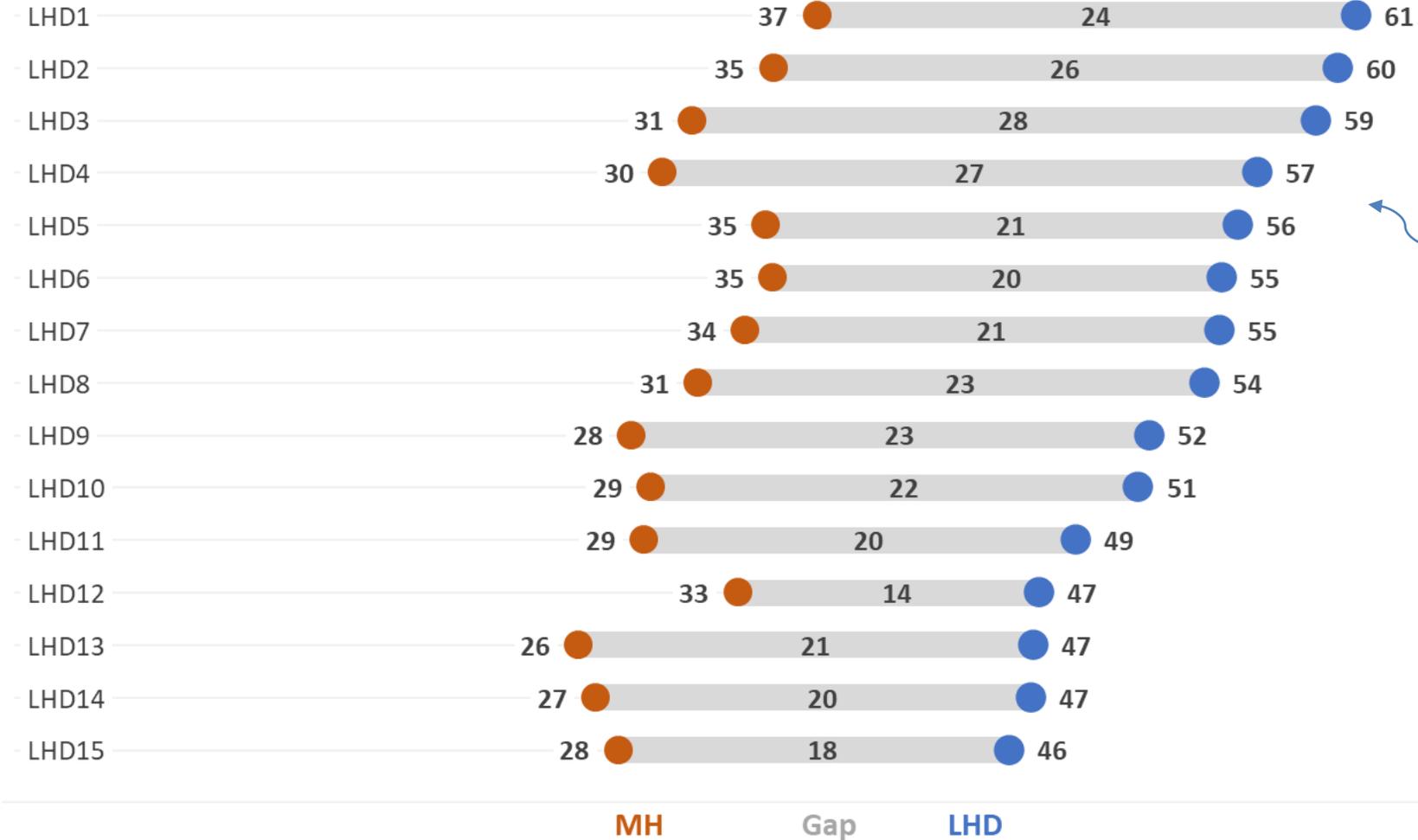


Incidence Rate Ratio (IRR) 0.57

Women aged 50-74 who have recently used NSW Mental health services were 43% less likely to have had a screening mammogram than other NSW women of the same age.

Breast cancer screening by LHD

Breast screening participation (%) by LHD: **Mental health consumers** compared to **overall LHD population**



Higher population rates in rural and regional LHDs

178,000 people used NSW community mental health services over 2 years ...

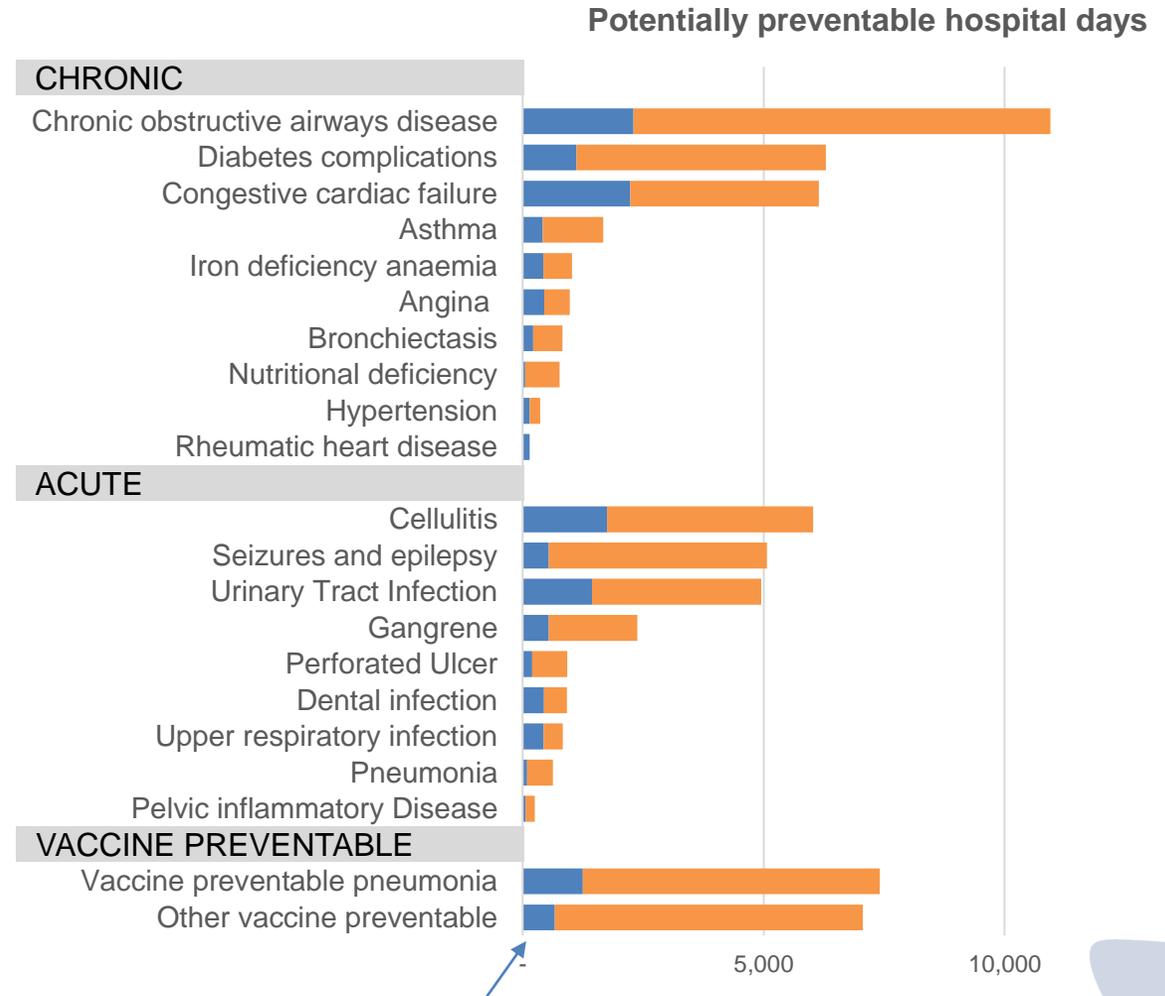
They experienced

2.6 x chance of 1 or more medical PPH

20% more PPHs per person

39% longer stay when admitted

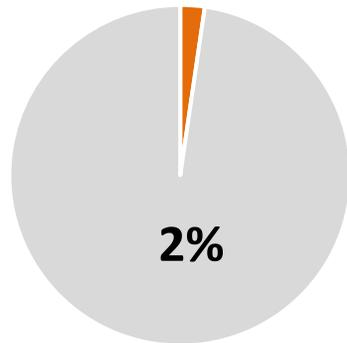
5.2 x bed days per capita (aIRR)



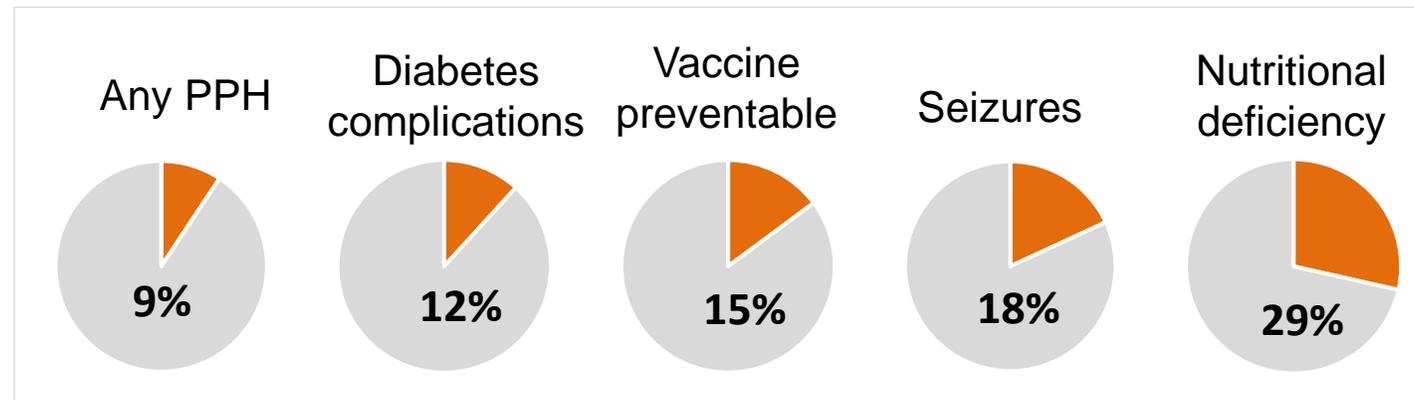
Bed days expected if same PPH rate and length of stay as the rest of the NSW Population

Personal and system impacts for mental health service users

Percent of NSW Population

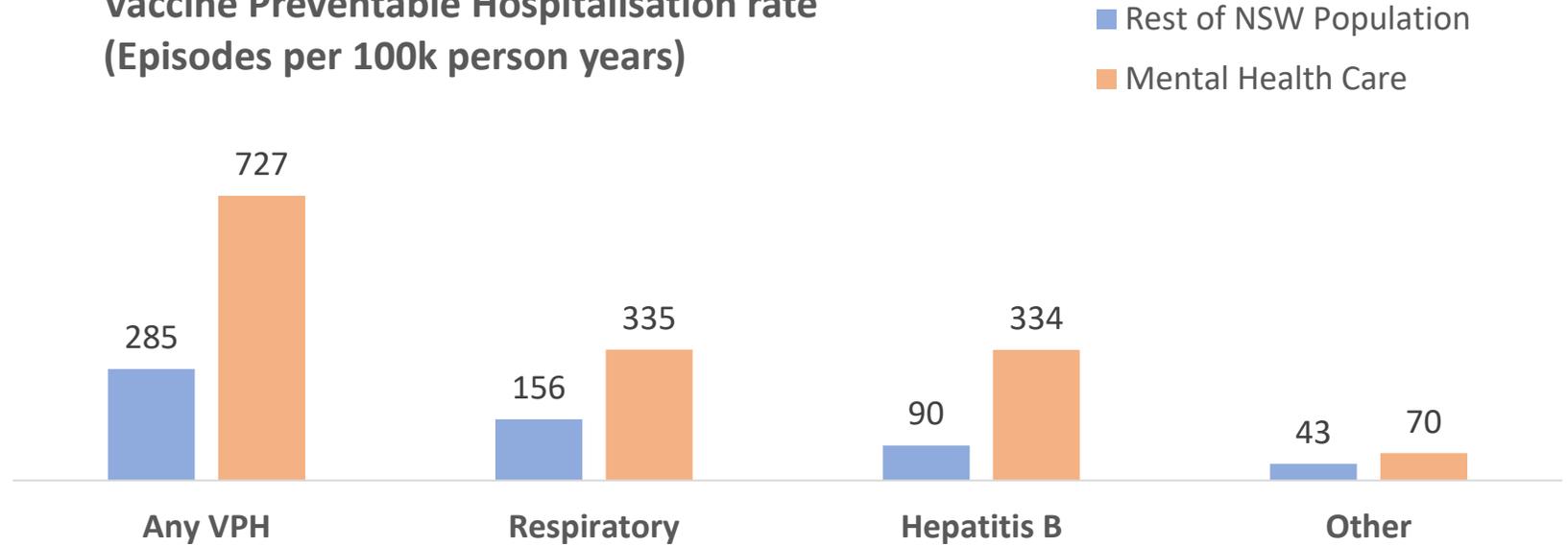


Percent of total NSW Hospital bed days for preventable conditions ...

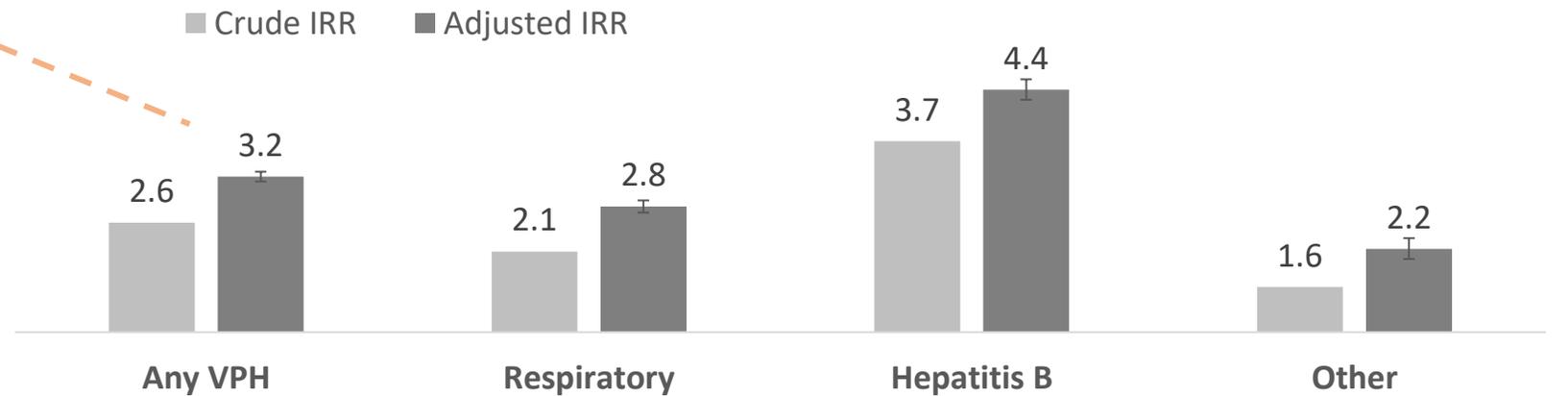


Mental health service users had **3.2x** more vaccine-preventable hospital admissions

Vaccine Preventable Hospitalisation rate (Episodes per 100k person years)



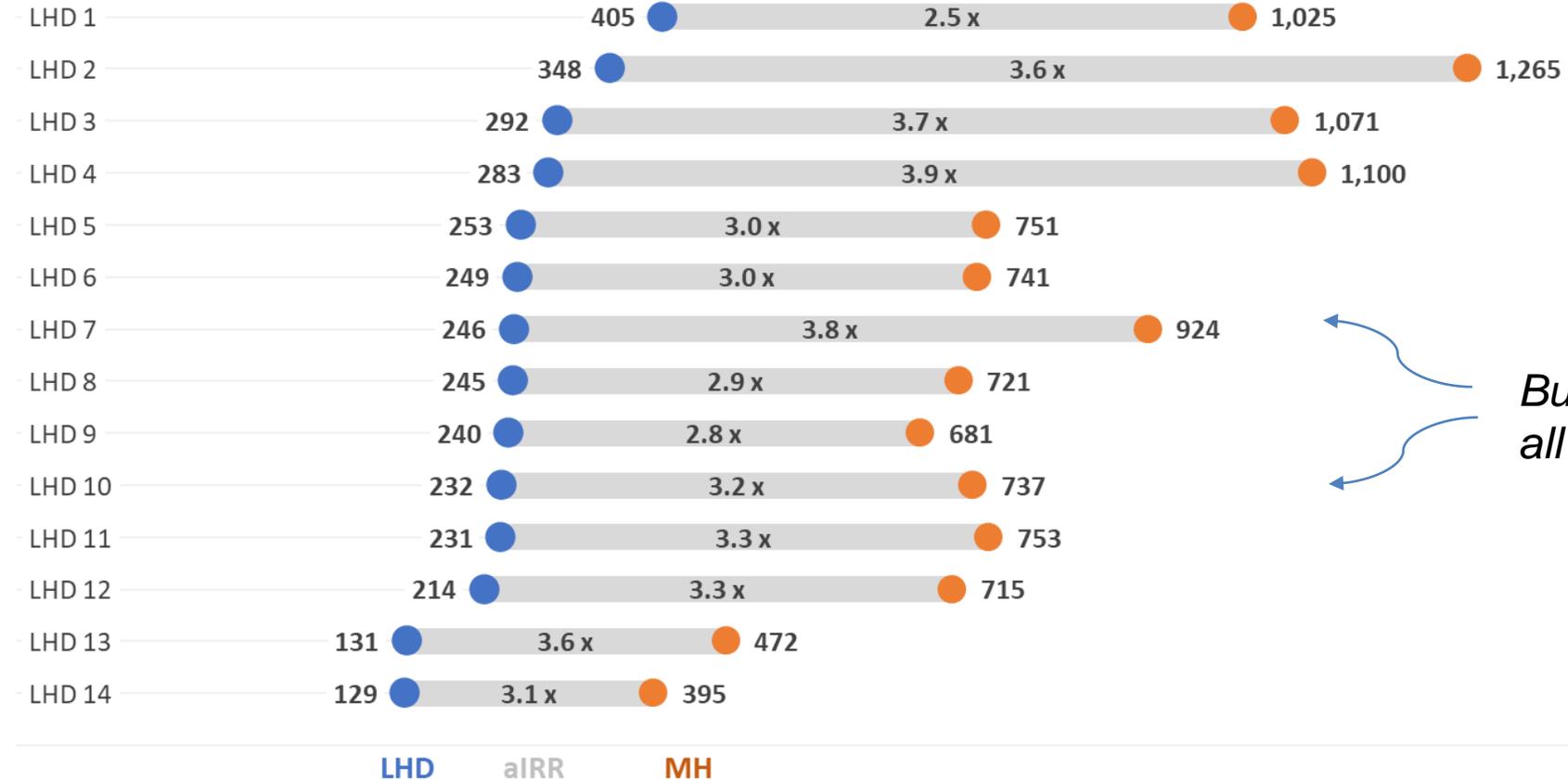
Incidence Rate Ratio



VPH “gap” varies between health districts: 2.5 – 3.9 x

Vaccine preventable hospitalisations by LHD: **Mental health consumers** compared to **rest of LHD population**

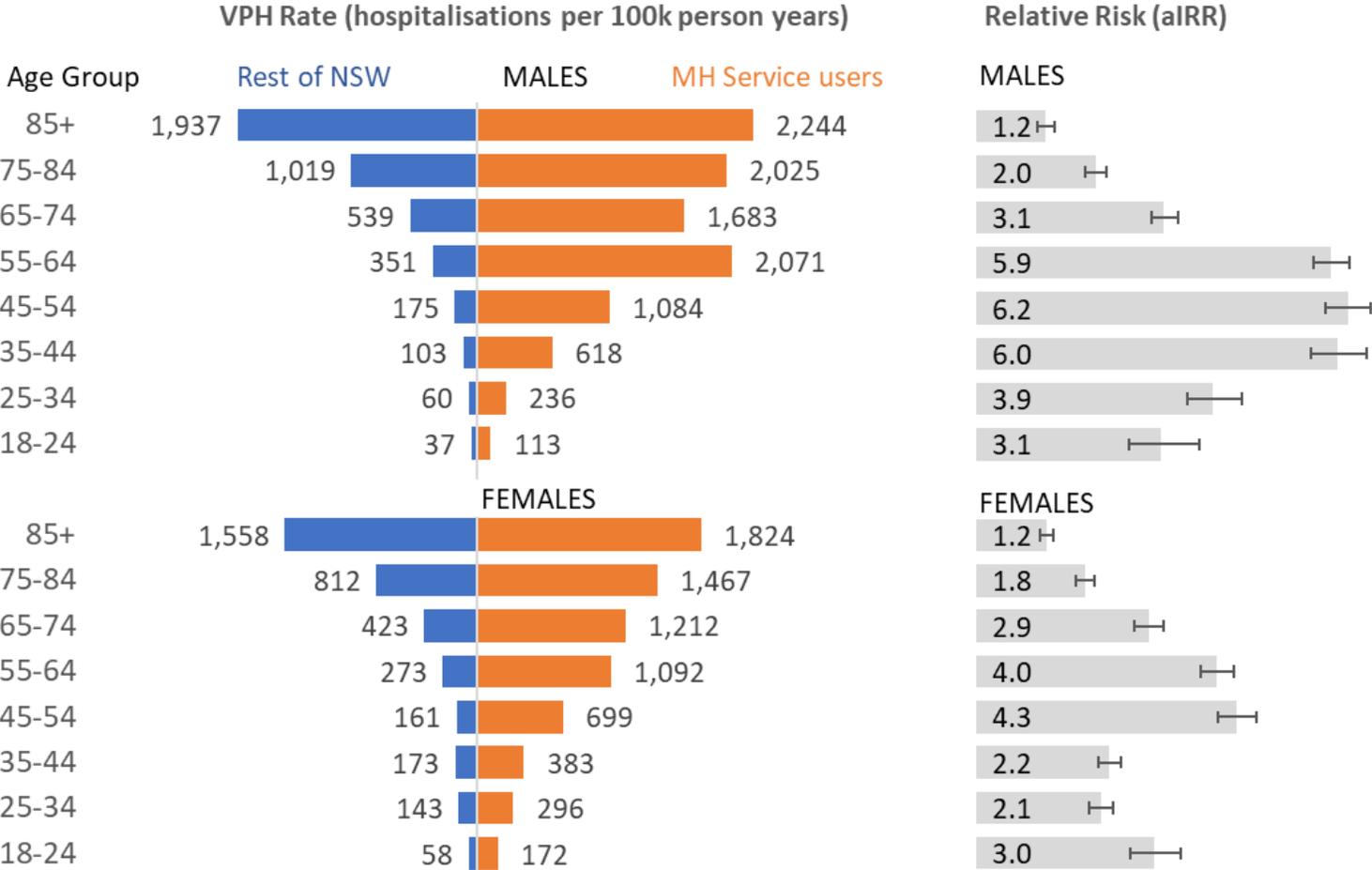
Higher rates in metro areas



But gaps in all areas

Gap figure is incidence rate ratio, adjusted for differences in age within each LHD (aIRR).

MH service users were 9 years younger when admitted



Overview

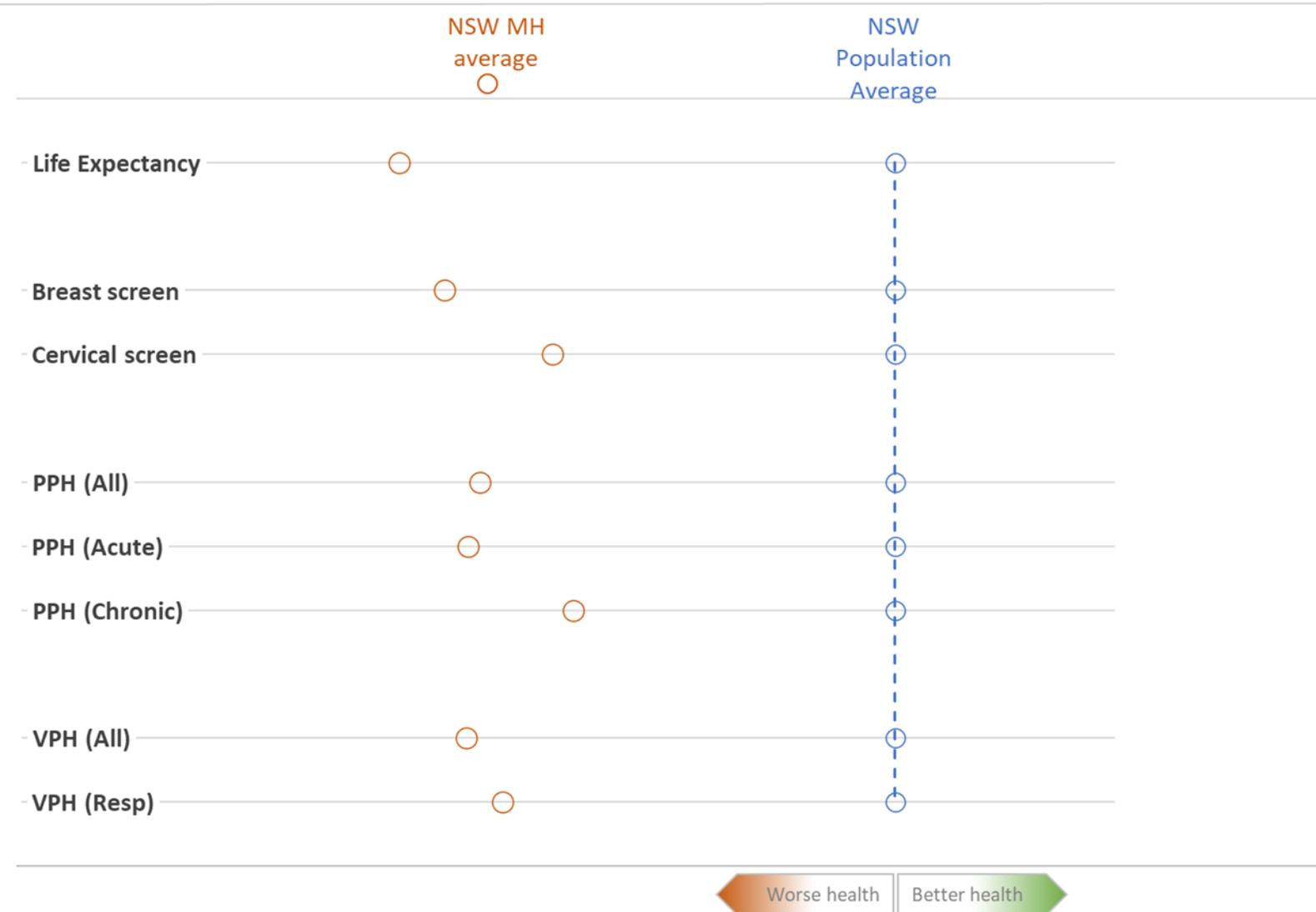
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Building LHD and PHN reporting

Physical health indicator summary for [redacted]: LHD

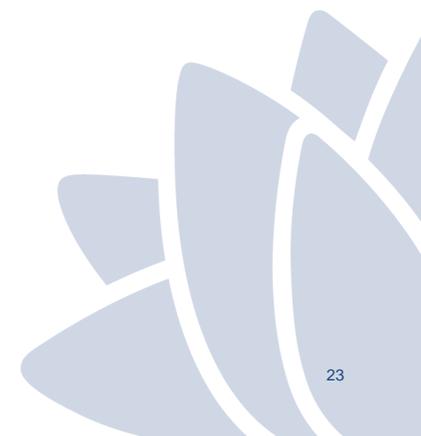
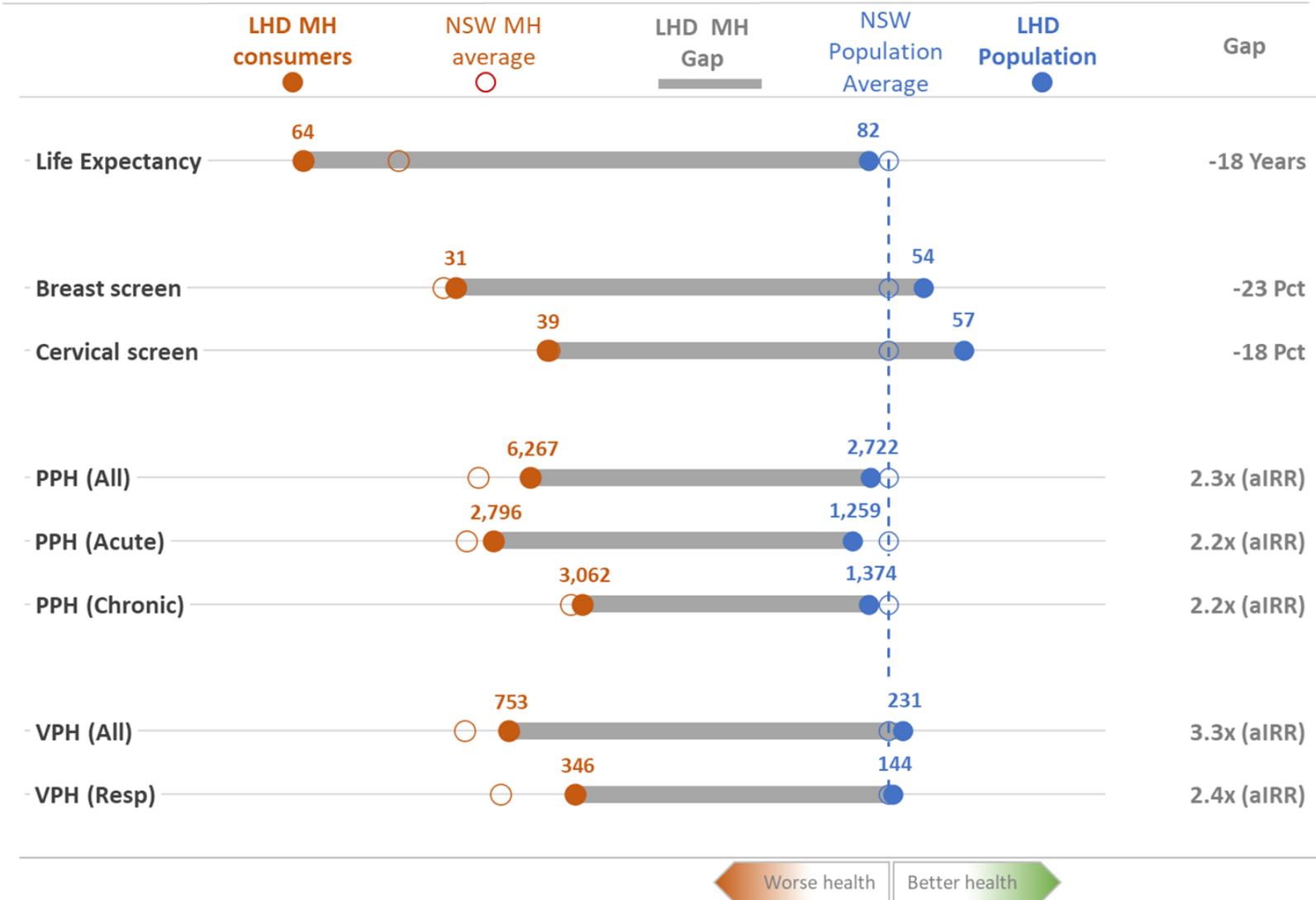
Comparing mental health service users to other LHD residents



Building LHD and PHN reporting

Physical health indicator summary for [redacted] LHD

Comparing **mental health service users** to **other LHD residents**



Building the data

	Processes of care	Outcomes
Primary goal		Life expectancy
Prevention programs	Breast cancer screening Cervical cancer screening Bowel cancer screening Cancer care Vaccination rates	Breast Ca stage at diagnosis Notifiable condition incidence rates Vaccine preventable hospitalisations
Primary care		PPH - Acute conditions PPH - Chronic conditions
Specialist health care	Surgical procedure rates Planned/emergency surgery ratios Renal dialysis and transplant rates	Surgery complication, readmission

Data availability: Current 23-24



Overview

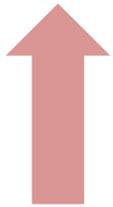
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Access to surgery when needed ?

**Relative rate of surgery (Adjusted incidence Rate Ratio),
MH service users compared to matched NSW residents**

	PLANNED	EMERGENCY
All surgery	1.19 (1.16-1.21)	3.50 (3.41-3.59)



Need

- *Chronic conditions*
- *Less preventative care*
- *+ ...*



Access

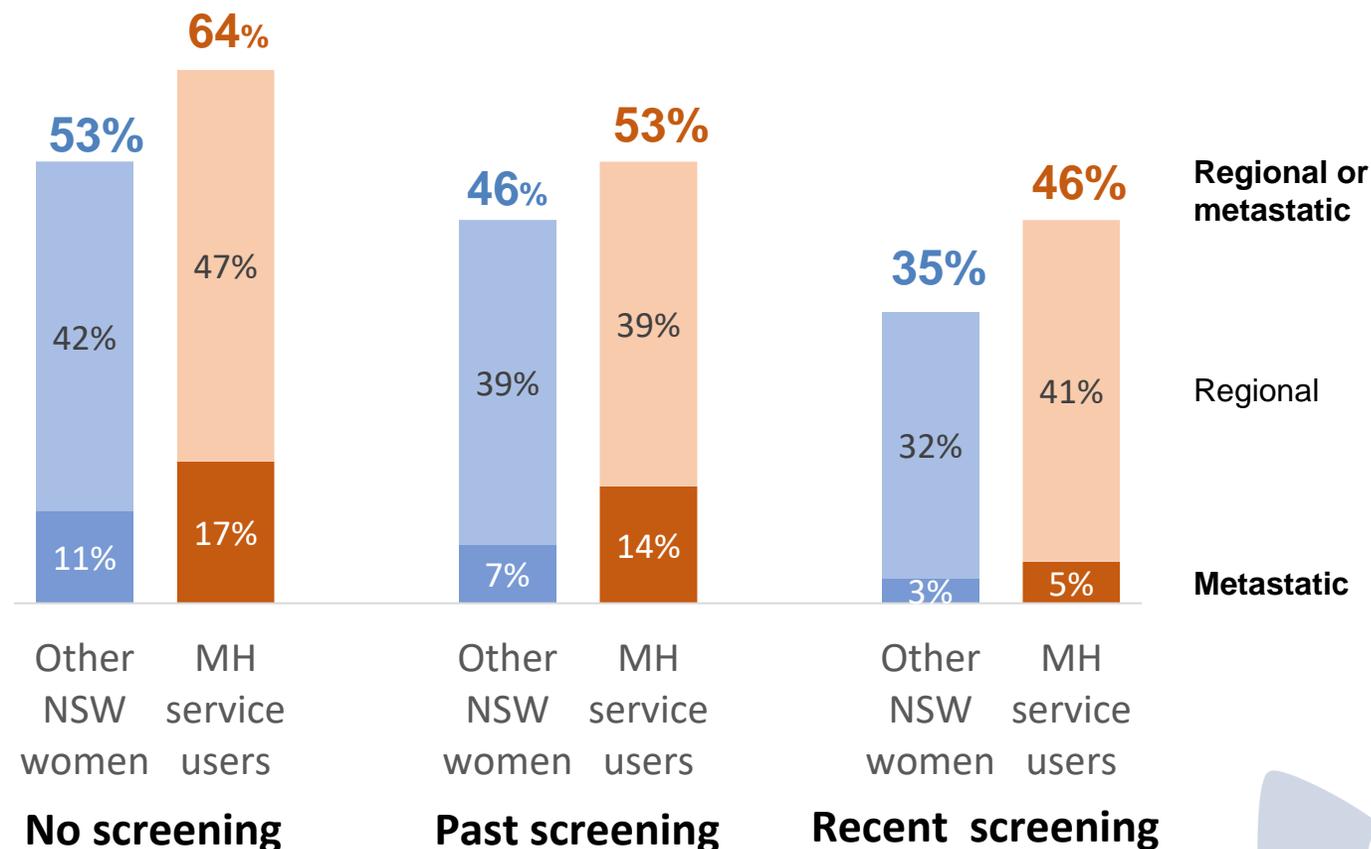
- *Overshadowing*
- *Financial barriers*
- *+ ...*

Reduced screening only partly explains more advanced breast cancer ...

NSW mental health service users were less likely to have participated in breast screening.

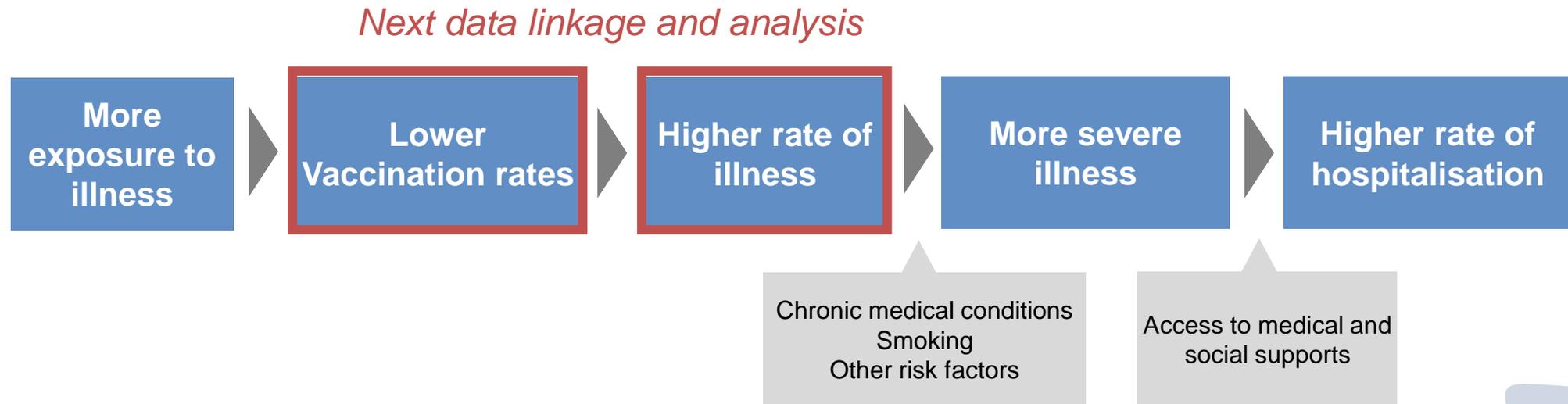
They were also 60% more likely to have advanced disease when first diagnosed with breast cancer.

However, adjusting for BreastScreen participation only slightly reduced this risk (to 50%).



Vaccination isn't the only factor in vaccine-preventable hospitalisation

- ▶ Likely to be many interacting factors
- ▶ Different factors for different people, places and conditions
- ▶ Understanding these could help to target improvement efforts



Many gaps and limitations

- ▶ **Life Expectancy : an essential but limited measure**
- ▶ **Not currently linked with national data (MBS, PBS, Primary MH, GPs etc)**
 - ▶ Can't understand the full spectrum of care or the full range of people affected
 - ▶ National linkage progressing
 - ▶ Alternatives: Lumos, 45 and Up ...
- ▶ **Important gaps in available NSW data**
 - ▶ Individuals' cultural, family and personal context
 - ▶ Medications, investigations, physical observations ...
- ▶ **Data is only data**



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InforMH project team (SIA)

- Fred Wu, Wendy Chen, Jenn Humphrey
- Patrick Gould, Chris Lambeth, Julia Hamer, Ben Barker, Michael Impelido, Kate Brewer, Hanif Patel, Andy Davis

Thank you

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