

Background

- People prescribed antidepressants represent a large, diverse and clinically heterogeneous population¹
- Patterns of hospital use in this population remain poorly characterised

Aim

Characterise hospital use among adults prescribed antidepressants by age, sex and socioeconomic deprivation and compare rates with the Scottish population

Methods

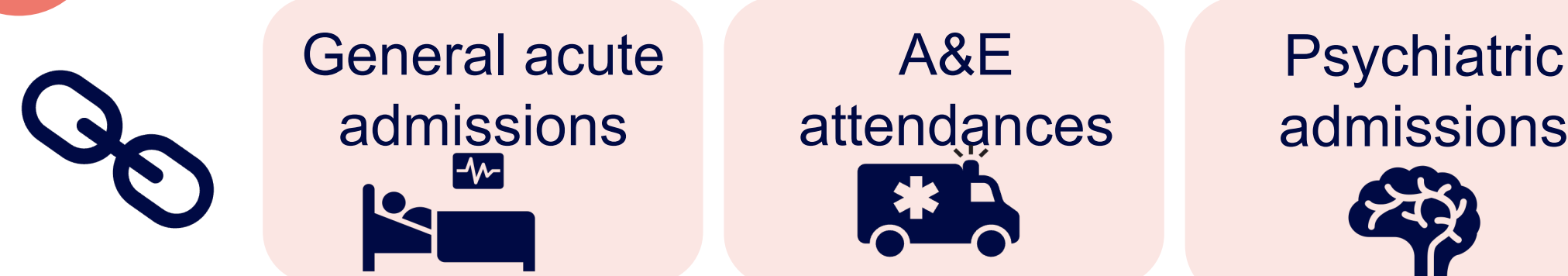
Retrospective observational study using anonymised linked data

1 Define the population | Jan 2019-Dec 2023

NHS Tayside residents aged ≥16 with ≥1 antidepressant prescription in the corresponding month

Eligibility reassessed monthly

2 Link prescribing and hospital records



3 Calculate monthly hospital use rates

Calculate separately for each hospital setting

Hospital contacts among adults prescribed antidepressants that month

Number of adults prescribed antidepressants that month

× 1,000 = Monthly hospital use rate

Contacts per 1,000 adults prescribed antidepressants

Stratified by:

Age | 7 groups | Sex | Male / Female | Deprivation | SIMD quintiles

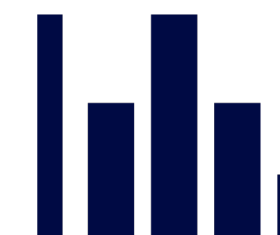


Compare mean monthly rates:

Sex: paired t-tests

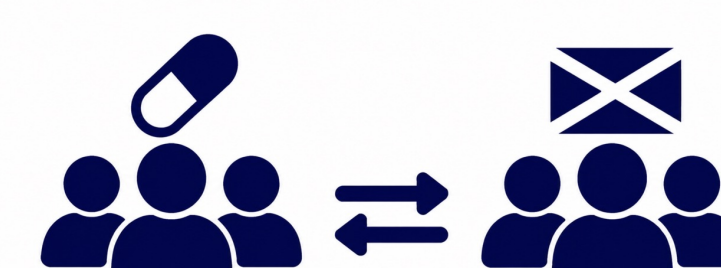
Age / deprivation: one-way ANOVA + Tukey

p < 0.05



4 Compare with Scottish population rates

Compare age-specific and sex-specific population rates



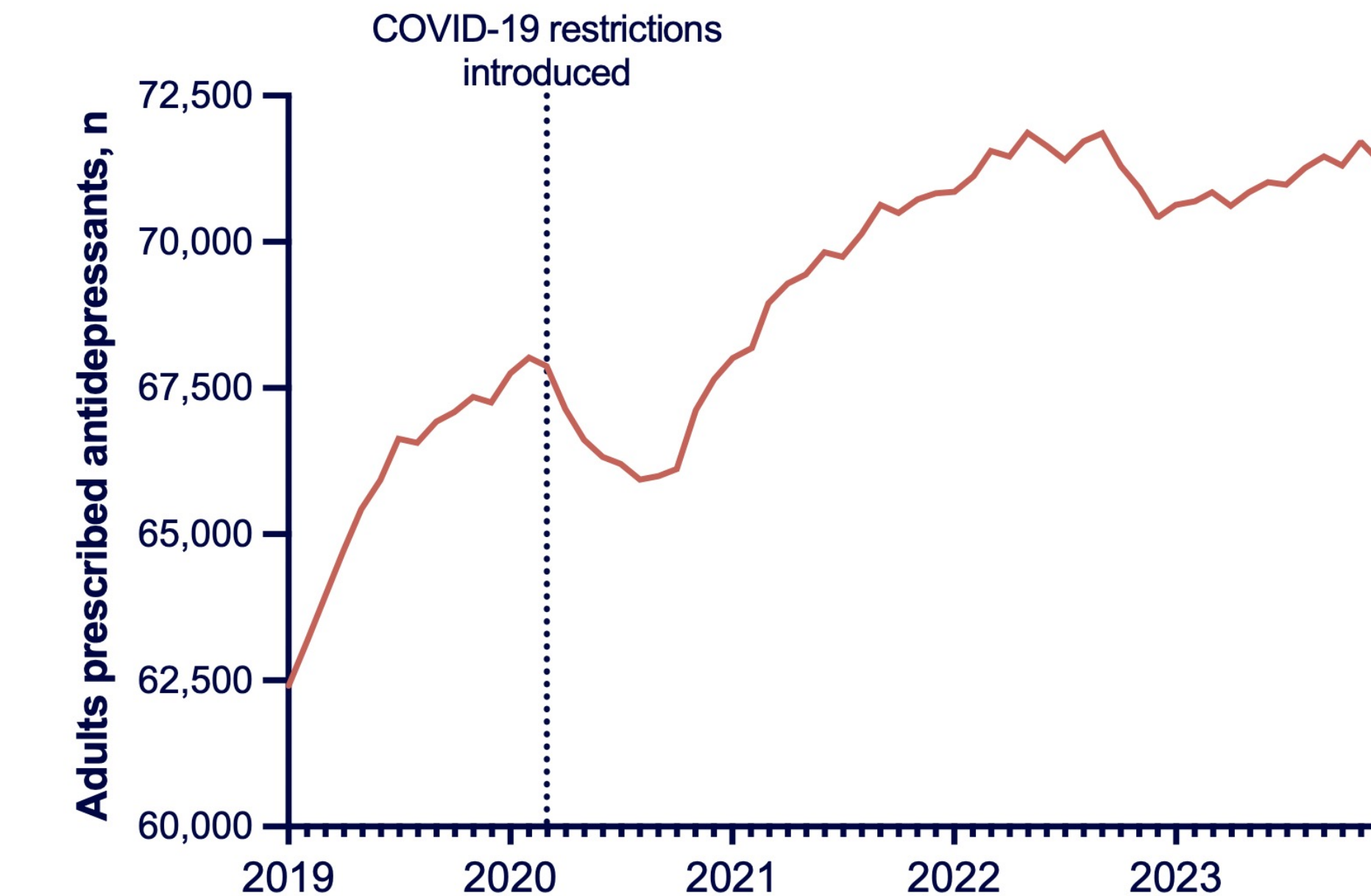
Tayside antidepressant-prescribed population rate

Corresponding Scottish population rate

= Rate ratio

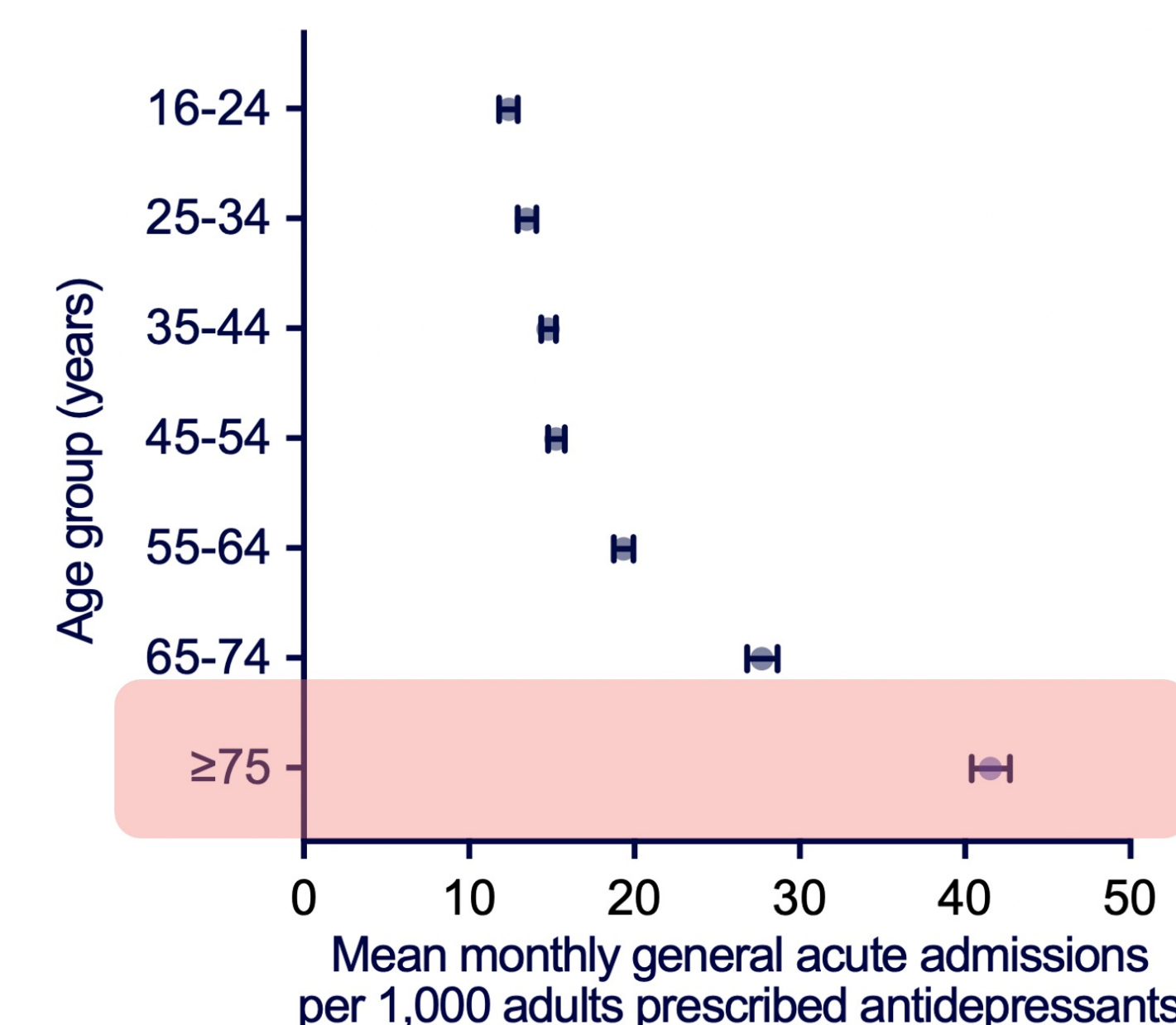
A A large and growing population are prescribed antidepressants

Mean monthly population: 68,876 adults prescribed antidepressants (1 in 5 Tayside adults), 66.1% female



Prescribed population increased by 8.3% (Jan 2019-Dec 2023)

C Highest general acute rates at ≥75: Near parity with Scottish age peers



AGE ≥75:

Absolute rate

41.86

Admissions per 1,000 adults prescribed antidepressants/month

Relative rate

0.92x

The Scottish general acute admission rate for adults ≥75

Results

B Adults under 45 years prescribed antidepressants had the greatest excess hospital use relative to Scottish age peers

6.25x

Emergency attendances Ages 16-24

5.42x

Psychiatric admissions Ages 16-24

	16-24	25-34	35-44	45-54	55-64	65-74	≥75
General acute admissions	1.80	1.69	2.57	1.13	0.99	1.08	0.92
Emergency attendances	6.25	5.14	6.31	2.83	2.01	1.57	0.90
Psychiatric admissions	5.42	3.73	3.49	2.92	2.37	3.03	2.24

Mean rate ratios, 2019-2023: Tayside adults prescribed antidepressants vs age-specific Scottish population

Rate ratio = 1: equal rates | >1: higher use | <1: lower use

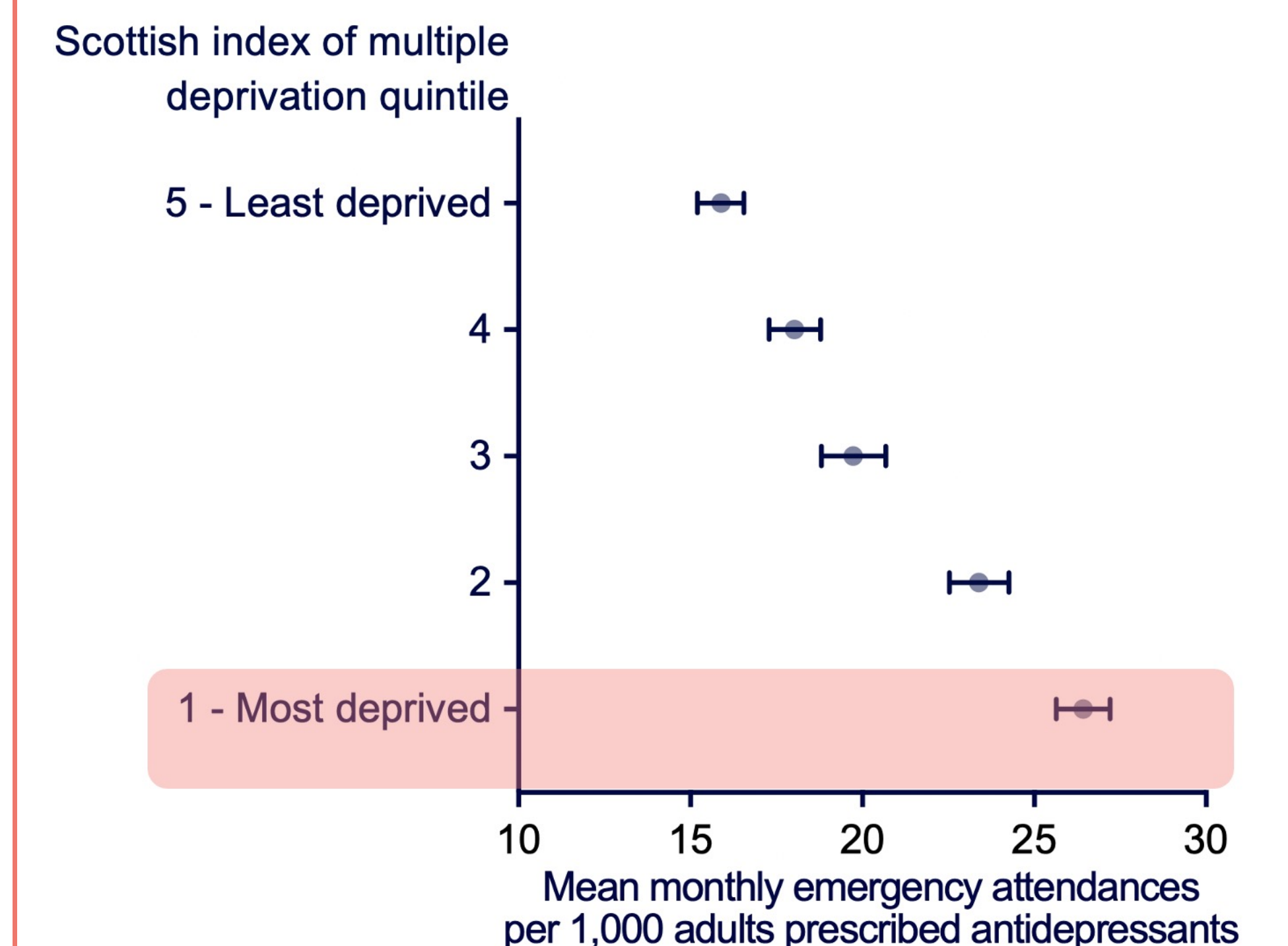
D Men had greater excess hospital use

	Males	Females
General acute admissions	1.27	1.07
Emergency attendances	2.53	2.09
Psychiatric admissions	3.88	2.77

Mean rate ratios, 2019-2023: Tayside adults prescribed antidepressants vs Scottish population rates for the same sex. 1 = equal rates, >1 = higher use

Across all three settings, men prescribed antidepressants had greater relative excess than women, and higher absolute rates of hospital use

E Emergency attendance rates were higher with greater deprivation



66% higher

Emergency attendance rate

Most vs least deprived adults prescribed antidepressants

Discussion and Conclusions

Younger adults (aged <45) prescribed antidepressants had the greatest excess hospital use relative to Scottish age peers

Those aged ≥75 had the highest general acute admission rates, but little excess; psychiatric admissions remained elevated

Next steps:

- Investigate drivers of excess hospital use among adults prescribed antidepressants, particularly young adults, alongside the deprivation gradient
- Use age, sex and deprivation patterns to guide service planning for adults prescribed antidepressants

Reference:

1. Brisnik V, Rottenkolber M, Vukas J, Schechner M, Lukaschek K, Jung-Sievers C, et al. Potential deprescribing indications for antidepressants between 2012 and 2019: repeated cross-sectional analysis in two Scottish health boards. BMC Med. 2024;22:378. doi:10.1186/s12916-024-03584-9



Explore this study