

Age-related risk of serious fall events associated with opioid analgesic use

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Background

Opioid analgesics may increase the risk of falls. Few studies include people of all ages, and there is a need to examine age-specific risk.

Aims

To quantify age-related risk of serious fall events by:

- opioid exposure
- time from opioid initiation
- opioid dose (results not shown)

Methods

Design: Population-based new-user study linking pharmaceutical claims to health data for 3.2M residents of New South Wales, Australia, Jan 2005-Dec 2018.

Exposure: Time-dependent opioid exposure.

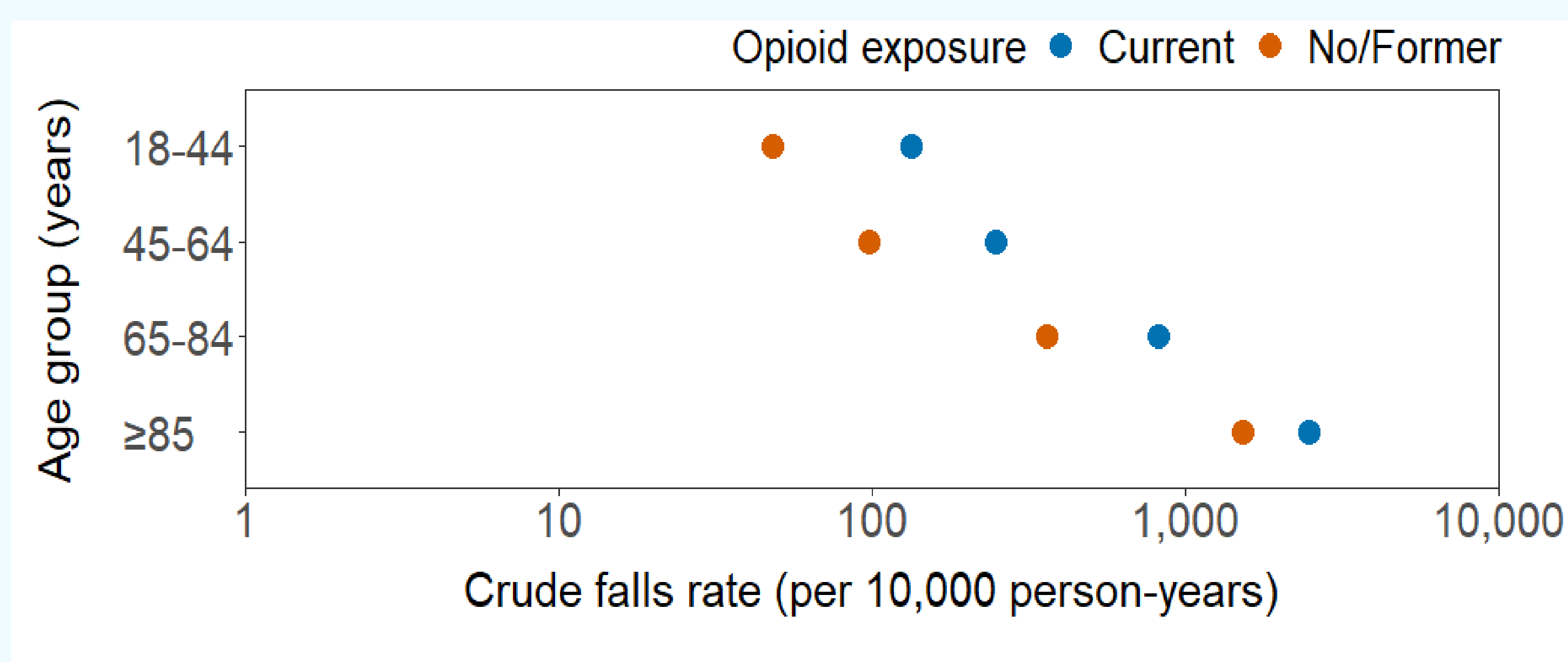
Outcomes: Fall-related ED presentations, hospitalisations, and deaths.

Covariates: Fall-risk increasing drugs, frailty, prior falls.

Analysis: Negative binomial models assessing interactions between opioid exposure, age, and falls.

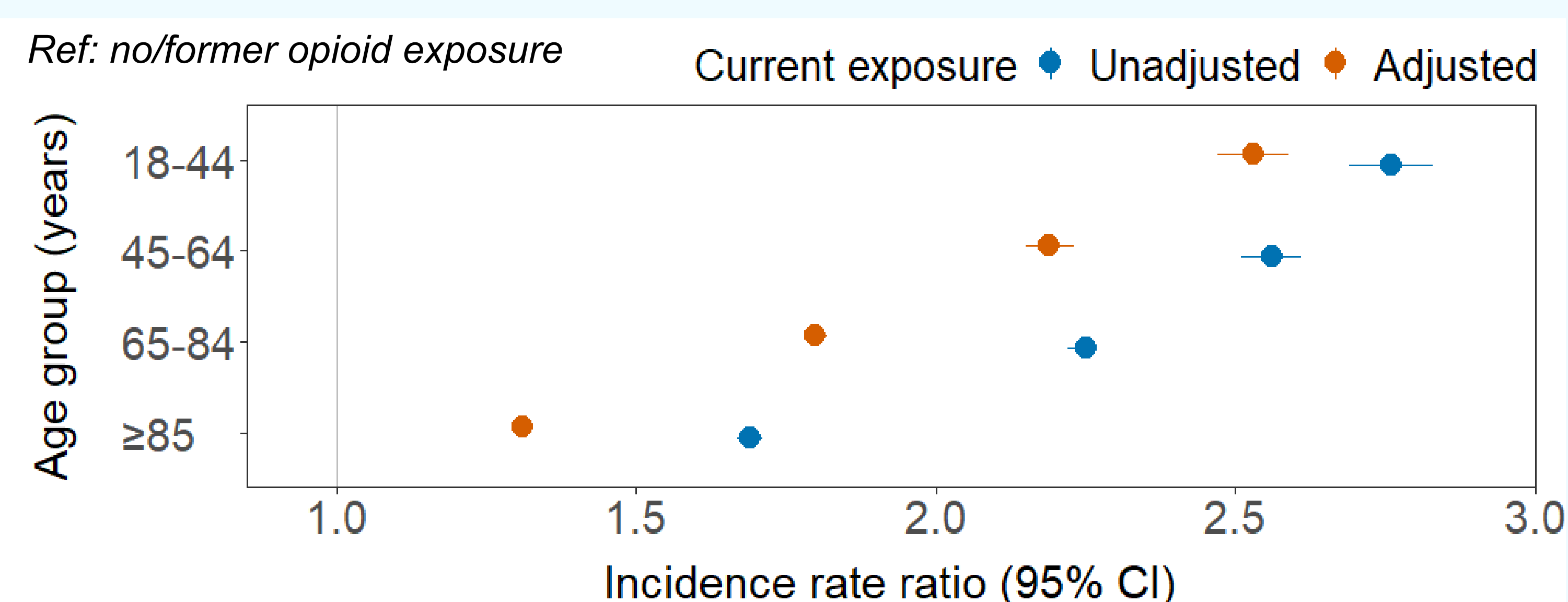
Results

1: Crude fall rates by age groups



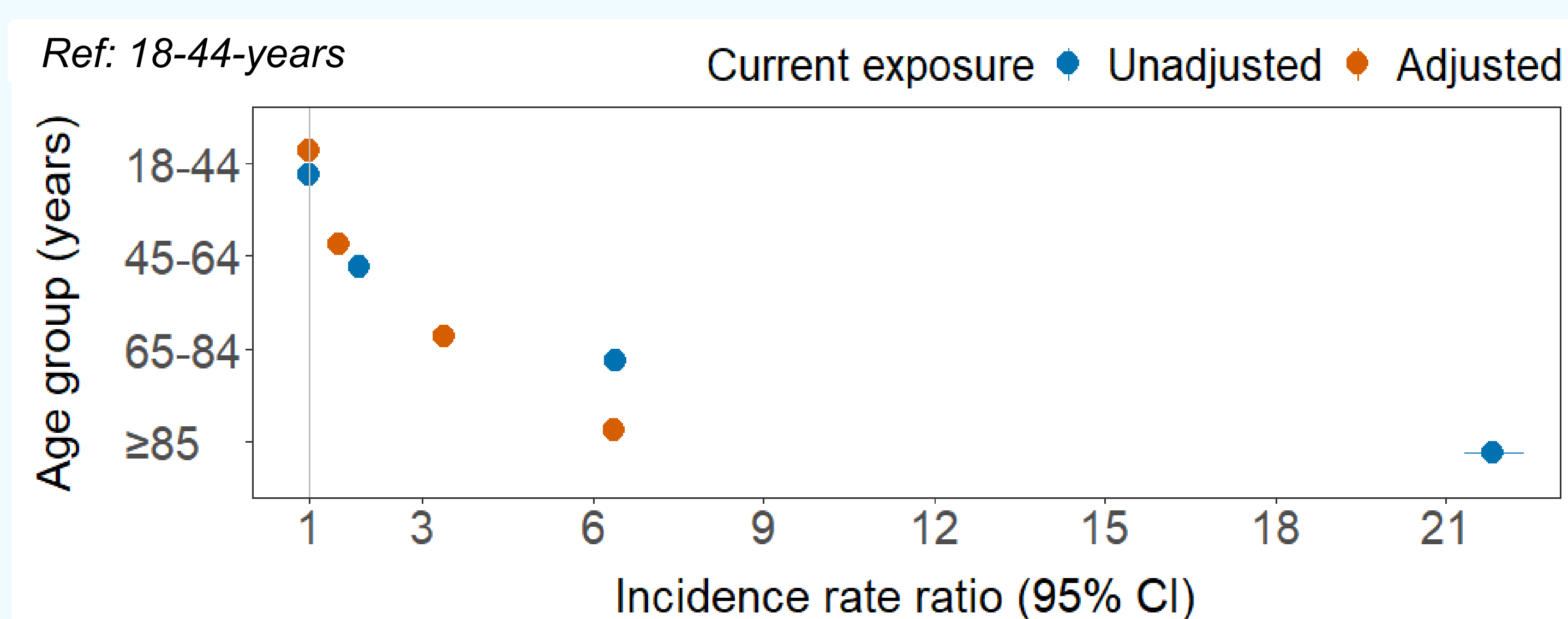
There were 506,573 fall events, with a crude falls rate of 299.85/10,000 person-years. Rates increased with age and during periods of current opioid exposure.

2: Risk within age groups



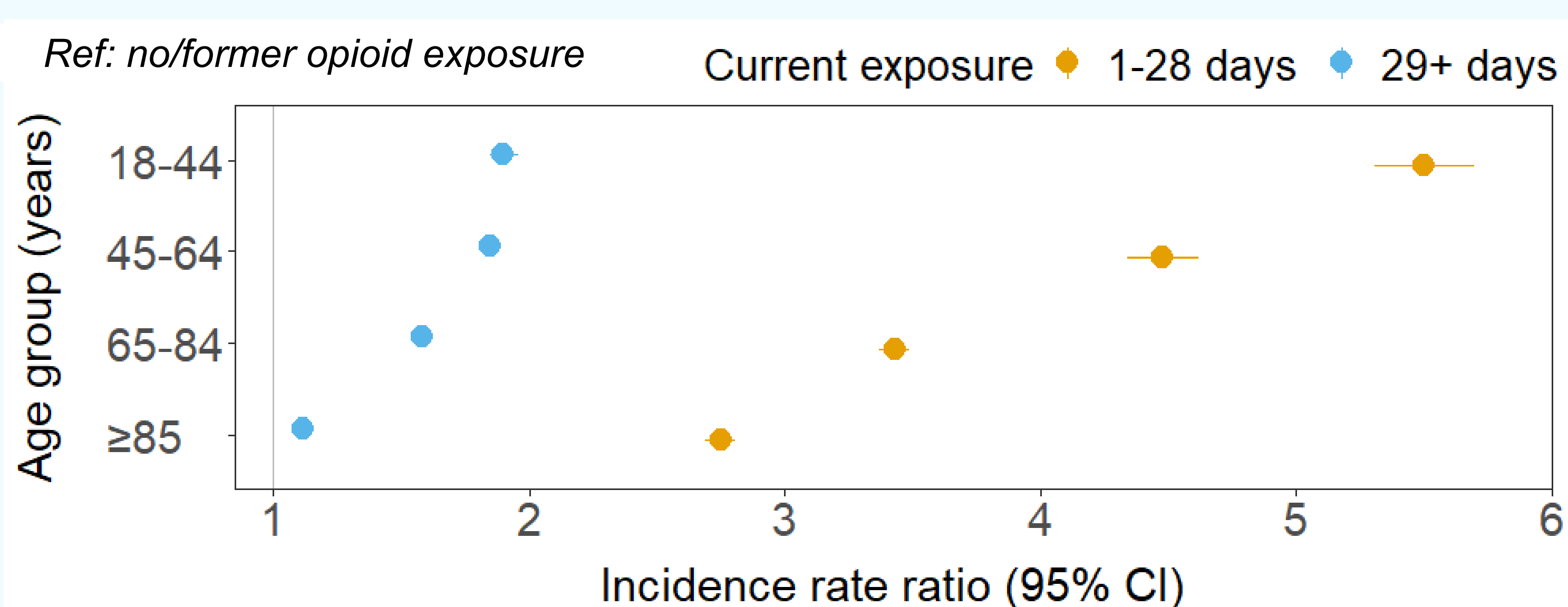
Within all age groups, risk was higher during periods of current opioid exposure, compared to no/former exposure.

3: Risk between age groups



Between age groups, risk increased with age and was highest for those ≥85-yrs-old, relative to 18-44-year-olds.

4: Risk by time from initiation



Within all age groups, risk was highest in days 1-28 of therapy, compared to the remainder of exposed time (29+ days).

Key takeaways

Exposure to prescribed opioids is associated with risk of falls among adults of all ages, with older individuals at greatest risk.

Falls risk should be considered when prescribing opioids, particularly for people with other risk factors.

Targeted fall prevention may be most effective in the first month of opioid treatment.

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Paper

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