Opioids initiated for acute pain, particularly post-surgery, can be a precursor to long-term use, increasing the risk of

opioid-related harm. There is limited Australian evidence on opioid use following hospital or emergency department (ED) visit.

Design: Descriptive population-based cohort study

Real-world administrative data: All hospital and ED visits between 2014 2020 in NSW, linked to medicine dispensings, deaths and cancer registrations (Medicines Intelligence Data Platform)

Study population: Opioid-naïve adult

16.2 million admissions by 4.2 million opioid-naïve adults

High long-term use following **trauma** (2.3%, 95% CI 2.2 2.4) and **medical admissions via ED** (3.5%, 95% CI 3.3 3.6)

Decreases in both opioid **initiation** and **long-term use** over time

Acknowledgments: This research was completed using the Medicines Intelligence Research Program Data Platform. Data were provided by the Australian Institute of Health and Wealth (AIHW), NSW Ministry of Health and Cancer Institute NSW. Record linkage was conducted by the AIHW and Centre for Health Record Linkage (CHeReL). Secure data access was provided through the Sax Institute's Secure Unified Research Environment (SURE).

