

The effect of sex on the incidence of ambulance attendances among people who inject drugs in Victoria, Australia

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Introduction: People who inject drugs are frequently attended by paramedics, but data on these episodes are rarely stratified by sex. We estimated incidence of ambulance attendances by sex in a cohort of people who inject drugs in Victoria.

Methods: SuperMIX survey data were linked to statewide ambulance attendances, Jan 2008–Aug 2019. We selected participants with at least one ambulance attendance during this period. Person-years (PY) began from the start of linkage (for those initiating injecting ≤ 2008) or the year participants reported initiating injecting (for those initiating > 2008). Follow-up ended at death or Aug 31, 2019. Incidence rate (IR) was the number of attendances per 100PY with 95% confidence intervals (CI), by calendar year and participant sex. To assess differences by sex, IR ratio (IRR) and 95% CIs were calculated.

Results: A total of 1035 (82%) participants had at least one ambulance attendance over the study (median=7, SD=13.5). One-third (33%) were female, 66% were born 1970–1984, and 68% reported heroin as their preferred drug. Participants contributed 13,577 PYs and 9045 ambulance attendances, 2008–2019, and 35% were among females. The overall IR was 65.3/100 PY (95%CI, 63.9–66.6), ranging 50.1/100 PY (95%CI, 46.0–54.2) in 2008 to 91.1/100 PY (95%CI, 85.7–96.5) in 2018. The overall IR for females was 71.3/100 PY (95%CI, 68.8–73.7) and 62.4/100 PY (95%CI, 60.8–64.0) for males (IRR=1.1; 95%CI, 1.1–1.2).

Conclusion: Ambulance attendance rates among SuperMIX participants almost doubled, 2008–2019; females had a higher rate (vs males). Understanding drivers of sex differences requires more research given evidence suggesting women and men who inject drugs have heterogeneous harms.

Implications: High ambulance usage among people who inject drugs could reflect gaps in access to primary healthcare. Higher attendance among women may signal sex-specific barriers to accessing mainstream healthcare including caregiving burdens or socioeconomic constraints.

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