Acute healthcare service utilization among people who use methamphetamine in Victoria: A linked cohort study

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Introduction: Methamphetamine use is a major public health concern, contributing to acute morbidity and substantial health service demand. People who use methamphetamine access acute care services more frequently and present with greater clinical severity than general population. However, longitudinal patterns of acute healthcare use are poorly understood in Australia. We aimed to describe longitudinal trends in acute healthcare service use in a cohort of people who use methamphetamine.

Methods: Data were drawn from VMAX, a prospective cohort of people who use methamphetamine primarily by non-injecting routes. Collected elf-reported survey data were linked to outcomes from ambulance attendances (VACIS), ED presentations (VEMD), and hospital admissions (VAED) datasets. Incidence proportion of these outcomes was estimated using linked datasets. International Classification of Diseases, 10th Revision (ICD-10) codes were used to identify diagnosis categories. Analyses were stratified by gender and location.

Results: Among 808 participants, incidence proportion of acute healthcare services increased until 2020, followed by a decline after the onset of COVID-19 pandemic. Average incidence proportion between 2016 and 2023 was 23.5%(95% CI: 20.7%–26.6%) for ambulance attendances, 41.8%(95% CI: 38.5%–45.3%) for ED presentations, and 26.6%(95% CI: 23.6%–29.7%) for hospital admissions. Drug-related and mental health-related diagnoses were common among ED presentations and hospital admissions. Females had higher incidence proportion across acute care services. Ambulance attendances were initially higher in metropolitan Melbourne but later increased in rural Victoria. Hospital admissions were higher in metropolitan Melbourne, while ED presentations were higher in rural Victoria.

Discussions and Conclusions: People who use methamphetamine had a high incidence of acute health service use for drug-related and mental health reasons. The post-pandemic decline warrants further investigation to determine whether it reflects changes in service access, healthcare-seeking behaviour, or methamphetamine use patterns. These findings highlight the need for harm reduction specific to methamphetamine use and improved pathways to community-based treatment and mental health support.

Implications on communities, practice, policy and/or First Nations communities: These findings highlight the need for targeted community-based alcohol and other drug treatment, mental health support, and harm reduction services to reduce reliance on acute healthcare settings among people who use methamphetamine.

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