20-year trends in methamphetamine-related deaths in Australia

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Introduction: Australia has the highest global rates of methamphetamine dependence. Over the past two decades, methamphetamine-related deaths in Australia have quadrupled, mainly due to drug toxicity and suicide. Previous analyses of methamphetamine-related deaths covered limited timeframes, and largely focused on drug-toxicity deaths. This paper provides comprehensive insights across 20 years of evolving patterns in methamphetamine-related deaths in Australia.

Method: Analysis of Australian deaths from the National Coronial Information System, a database of deaths reported to the coroner in Australia and New Zealand (2002-2021).

Results: Methamphetamine-related deaths were primarily due to unintentional drug toxicity (51.6%), intentional self-harm (24.6%), unintentional injury (16.5%), natural causes (10%), and assaults (2%). Preliminary examination suggests an increasing trend over time that appeared particularly pronounced between 2009-2016, followed by stabilisation. This increase was driven by mixed-drug toxicity and intentional self-harm, consistent with previous research. Methamphetamine-related unintentional injury rates increased ninefold between 2002 and 2016, mainly due to fatal motor vehicle collisions (n=929), which accounted for 12.7% of all Australian fatal motor vehicle collisions from 2002 to 2021. Concerningly, natural cause mortality rates have risen eightfold, primarily among males in their 40s with circulatory system diseases. Despite a peak in 2019, a slight dip in natural cause deaths in 2020 hides a persistent upward trend among females. Notably, half of all cases involved opioids and/or benzodiazepines, complicating the attribution of cause to methamphetamine toxicity and emphasising high levels of poly-drug use in this group.

Discussions and Conclusions: Australian methamphetamine mortality rates have quadrupled in the past 20 years. While rates have stabilised for drug toxicity and declined for intentional self-harm and unintentional injury, the increase in deaths from natural causes highlight a growing public health problem linked to regular methamphetamine use.

Implications: Our findings highlight the need for early circulatory disease screening and improved access to medical and mental health care beyond drug treatment for people who use methamphetamine.

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