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Crystal methamphetamine and use of commercial pipes amongst a sentinel sample of people who regularly use ecstasy and other illicit stimulants in Australia, 2021

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Key Findings

- In 2021, 16% of the national EDRS sample reported recent (i.e., past six month) use of crystal methamphetamine, with smoking being the most common route of administration (93% of those who had recently used crystal methamphetamine).
- Among those who had recently smoked crystal methamphetamine (n=111), the majority reported using a commercial pipe on at least one occasion in the preceding six months (86%; n=95).
- Almost one-fifth (19%; n=21) of participants who had recently used crystal methamphetamine and commented reported having trouble accessing a commercial pipe on any occasion in the past six months, with most of these participants (57%) reporting that this resulted in them using a homemade pipe instead. Very few participants (n≤5) reported that trouble accessing a pipe had resulted in them 'injecting instead', 'snorting instead', or 'waiting to obtain a commercial pipe', respectively.
- Just over two-fifths (47%; n=44) of those who had recently smoked crystal methamphetamine using a commercial pipe had experienced burns, sores, cuts or blisters on the mouth, lips, hands, face or other body part, a raw throat, coughing fits, coughing blood, or trouble breathing; 40% (n=6) of those who had not used a commercial pipe experienced the same harms.

Background

Methamphetamine has dominated the Australian amphetamine market since the late 1990s (1). There has been a shift over time in the primary form available, from the lower-purity powder ('speed') to the high purity crystalline form ('ice') (2), with the latter associated with greater risk of harm (3). One significant harm is the risk of human immunodeficiency virus (HIV) and other blood-borne virus (BBV) transmission (4). Crystal methamphetamine is typically smoked or injected, with smoking generally perceived as a more socially acceptable route of administration than injecting (5, 6). Whilst injecting conveys additional risk of BBV transmission, both routes can be associated with significant personal and social harms (6, 7).

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Of concern, recent research shows that increased methamphetamine treatment episodes in Australia since 2003 are due mostly to smoking the drug, typically among a younger cohort than those reporting injecting the drug.

It is an offence in most parts of Australia to possess any implement for using methamphetamine, other than a needle and syringes (8). This may reduce access to a route of methamphetamine administration that conveys a lower risk of BBV transmission than injecting. Further, the failure to supply pipes could lead to the use of makeshift equipment to smoke crystal methamphetamine, which could cause cuts, burns, blisters or sores, providing an additional conduit for BBV transmission, including among non-injecting drug using populations (9, 10). However, the extent to which this potential health risk occurs amongst people who smoke methamphetamine, or whether it is related to the use of makeshift pipes, has not been documented.

The aims of this bulletin are to examine (i) recent (past six-month) use of crystal methamphetamine, coupled with recent use of commercial pipes to smoke crystal methamphetamine, (ii) difficulties accessing a commercial pipe and subsequent behaviours; and (iii) health problems associated with smoking crystal methamphetamine, among a sentinel sample of people who regularly use ecstasy and other illicit stimulants in Australia, in 2021.

Method

The Ecstasy and Related Drugs Reporting System (EDRS) is an illicit drug monitoring system that has been operating nationally since 2003. It includes annual cross-sectional interviews with people who regularly consume ecstasy and other illicit stimulants, recruited from capital cities in all states and territories of Australia. In 2021, 774 participants from all Australian capital cities were interviewed for the EDRS. Please refer to the EDRS Background and Methods document for further details.

In 2021, participants were asked whether they had used crystal methamphetamine in the past six months, and whether they had smoked the form in that period. Participants who had smoked crystal methamphetamine in the past six months were asked whether they had used a commercial pipe (i.e., a glass stem with a bowl attached) to smoke crystal methamphetamine in the last six months (yes/no), and whether they had experienced any of the following health problems from smoking crystal methamphetamine: “burns, sores, cuts or blisters in your mouth or on your lips”, “burns, sores, cuts or blisters on your hands, arms, face, or elsewhere”, “raw throat” or “coughing blood, coughing fits, or problems breathing”.

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All participants who had used crystal methamphetamine in the past six months, regardless of their route of administration, were asked if they had trouble accessing a commercial pipe when they had wanted to smoke crystal methamphetamine on any occasion in the last six months (yes/no), and if yes, what they did on those occasions when they were unable to access a commercial pipe to smoke crystal methamphetamine in the last six months ("waited until they could get one"; "used a homemade pipe"; "snorted instead"; "injected instead"; "other").

Results

Patterns of crystal methamphetamine consumption

In 2021, 16% (n=120) of EDRS participants reported recent (i.e., past six month) use of crystal methamphetamine. Among those who had used crystal methamphetamine and commented, 93% (n=111) reported smoking this form in the past six months. Over four-fifths (83%; n=93) reported only smoking and no other route of administration.

Among those who had smoked crystal methamphetamine in the past six months and commented (n=110), the majority reported using a commercial pipe (86%; n=95) to smoke crystal methamphetamine at some point within the preceding six months.

Difficulties accessing commercial pipes and subsequent behaviours

Almost one-fifth (19%; n=21) of participants who had recently used crystal methamphetamine (via any route of administration) reported having trouble accessing a commercial pipe on any occasion in the past six months. When asked what participants had done on those occasions when they were unable to access a commercial pipe to smoke crystal methamphetamine, participants most commonly reported using a homemade pipe (57%; n=12), with foil and lightbulbs being the most common material used. Few participants (n≤5) reported waiting until they could obtain a commercial pipe, or using other routes of administration, including snorting or injecting.

Health problems associated with smoking crystal methamphetamine

Among those who had smoked crystal methamphetamine in the six months prior to interview (n=111), 23% reported experiencing burns, sores, cuts or blisters in the mouth or on the lips and 12% reported experiencing burns, sores, cuts or blisters on the hands, arms, face or elsewhere. Furthermore, 23% reported experiencing a raw throat, and 17% reported coughing blood, coughing fits or problems breathing. Just over half (54%) of those who had recently smoked crystal methamphetamine reported none of the above problems.

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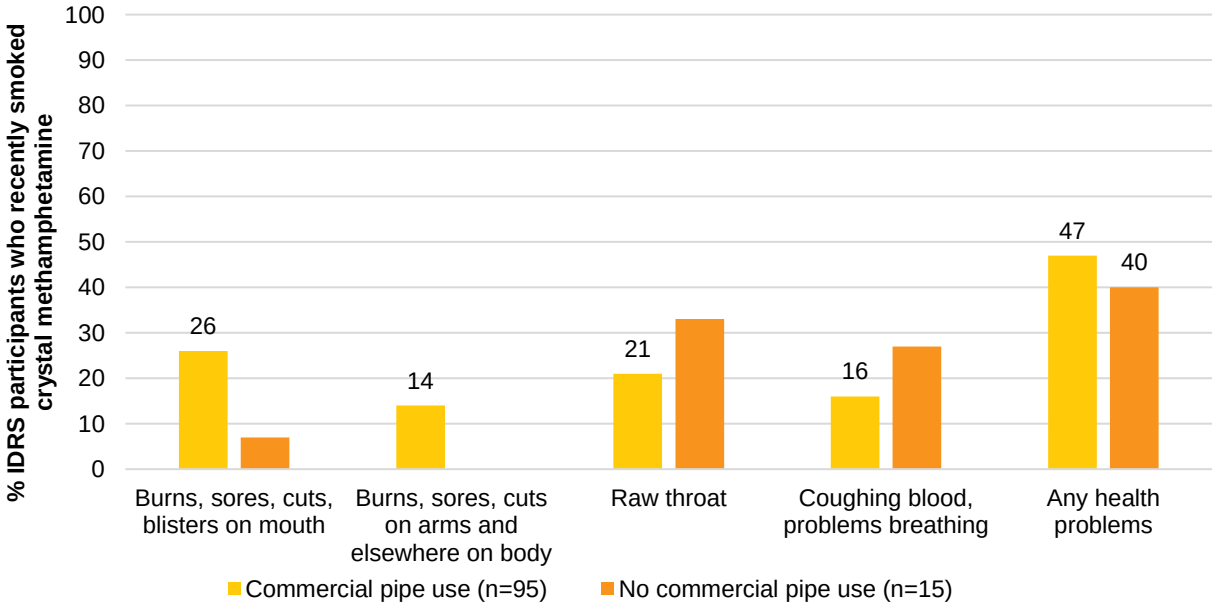
Figure 1 shows the breakdown of these health harms across those who had used a commercial pipe in the preceding six months (n=95) and those who had not (n=15). As can be seen, participants who had used a commercial pipe to smoke crystal methamphetamine experienced greater health problems in terms of burns, sores, cuts and blisters on the mouth (26%), as well as burns, sores and cuts on the arms and elsewhere on the body (14%), than those who had not used a commercial pipe. Participants who had not used a commercial pipe, however, experienced a raw throat and coughing blood, as well as problems breathing, more so than those who had used a commercial pipe. However, the overall experience of 'any' harm was comparable across the two groups.

In considering potential differences in harms experienced across the two groups, it is important to consider frequency of use. Namely, participants who report using crystal methamphetamine more often may be more likely to experience more harms in general, regardless of what type of pipe they had used. Participants who had used a commercial pipe reported consuming crystal methamphetamine on a median of 15 days (IQR=5-60) in the past six months, whereas those who had not used a commercial pipe reported using crystal on a median of 6 days (IQR=2-48) (p=0.335).

Due to the low numbers reporting no commercial pipe use (n=15) in the past six months, these results should be interpreted with caution.

Figure 1. Harms associated with smoking crystal methamphetamine among those who had used a commercial pipe in the past six months versus those who had not, nationally, 2021



Note. Data labels have been removed from figures with small cell size (i.e. n≤5 but not 0).

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Discussion and Conclusion

Sixteen per cent of the national EDRS sample reported recent crystal methamphetamine use in 2021, with the majority of these participants (86%) reporting that they had smoked crystal methamphetamine using a commercial pipe. However, almost one-fifth of participants who had recently used crystal methamphetamine reported difficulty accessing a commercial pipe on at least one occasion in the preceding six months, with most of these participants reporting that this resulted in them using a homemade pipe instead.

Despite limited research in this area, our findings are comparable with commercial pipe use among a sample of people who inject drugs (11). Specifically, a survey of 902 people who injected drugs in 2019 found that most participants who had recently smoked crystal methamphetamine had used a commercial pipe (90%) and one-in-five (19%) reported difficulties in obtaining a pipe. Two-fifths (44%) of those who reported trouble accessing a commercial pipe used a homemade pipe instead, similar to what we found among our sample of people who use ecstasy and other illicit stimulants (57%). These findings show that trouble accessing commercial pipes can cause people to engage in potentially more harmful methods of consumption.

We also found that two-fifths (46%) of those who had recently smoked crystal methamphetamine had subsequently experienced burns, sores, cuts or blisters on the mouth, lips, hands or other body parts, coughing fits/blood, or breathing problems, with these harms being fairly comparable among those who had used commercial pipes (47%) and those who had not used commercial pipes (40%). While other research has found that injuries including burns were linked to the use of improvised methamphetamine pipes, such as light bulbs (1), our findings indicate that these injuries occur among people using both commercial and improvised pipes. This suggests that harm reduction information regarding safer smoking practices should be distributed to all people who smoke methamphetamine, regardless of the type of pipe they use. This seems particularly important given that a survey of people who use methamphetamine in the ACT, Australia (2) found that 28% of participants who had shared a pipe to smoke crystal methamphetamine reported having lesions on their lips, most prominently burns, sores and cuts, which in turn presents a risk factor for BBV transmission.

Our findings suggest that making commercial pipes more readily available would reduce the use of homemade pipes and related BBV risk. Harm reduction information around safer smoking practices, including material on how to avoid and treat burns, as well as education about the risks associated with sharing pipes, would also be beneficial. Although the majority of our sample were able to access commercial pipes without any difficulties, there were a small number of participants who reported that trouble accessing commercial pipes resulted in them engaging in potentially more harmful methods of consumption (e.g., using improvised pipes).

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The legal distribution of commercial pipes via health services would not only reduce this risk but would also provide an opportunity to engage people who smoke methamphetamine. Indeed, research from countries where smoking paraphernalia has been distributed via needle and syringe programs, suggests that such strategies can result in decreased drug-related health problems, including burns, mouth sores, raw throat and coughing blood (3), and can serve as an opportunity to access other services, including linkage to care and treatment services. There has been repeated calls for a trial of safer smoking kits through community health services, such as needle syringe programs (12, 13). However, people who do not inject drugs may be reluctant to attend these services, and so alternative points of distribution may be warranted. A supervised inhalation facility could provide an opportunity for people who smoke, but do not inject, methamphetamine (such as those within the EDRS study) to become engaged in a healthcare setting, where they can have access to harm reduction, social services, preventative population-based health innovations and treatment (14), if needed.

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