





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*

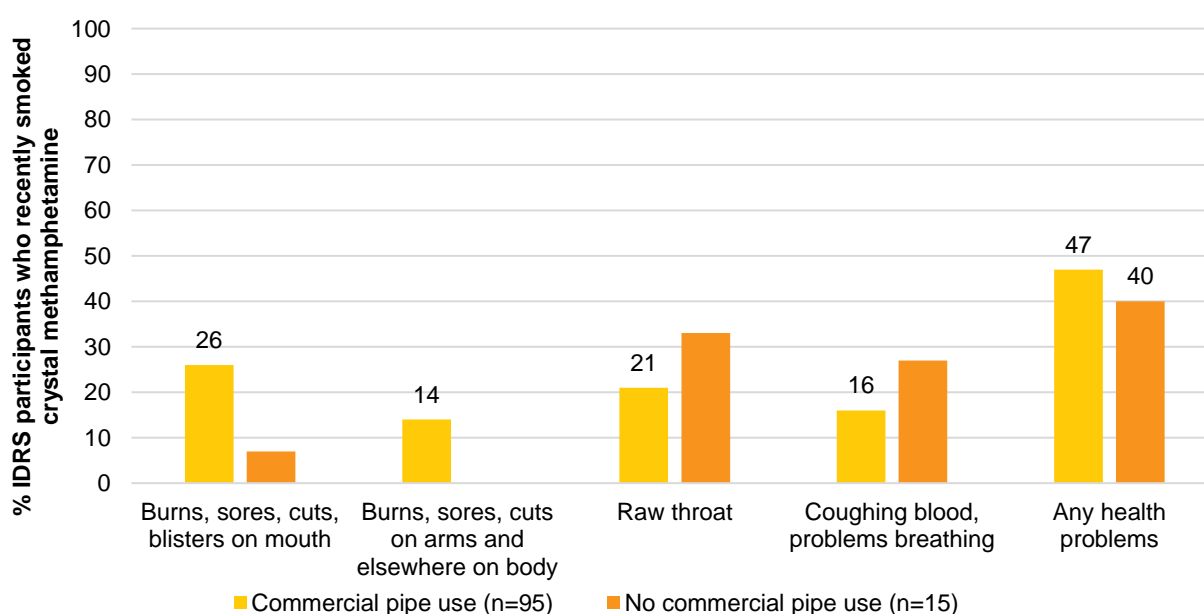
Among those who had smoked crystal methamphetamine in the six months prior to interview (n=111), 23% reported experiencing burns, sores, cuts or blisters in the mouth or on the lips and 12% reported experiencing burns, sores, cuts or blisters on the hands, arms, face or elsewhere. Furthermore, 23% reported 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.

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.  $n \leq 5$  but not 0).

## 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).

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.

## References

1. Hunter, C., Strike, C., Barnaby, L. et al. Reducing widespread pipe sharing and risky sex among crystal methamphetamine smokers in Toronto: do safer smoking kits have a potential role to play? *Harm Reduction Journal*. 9, 9 (2012).
2. McKetin, R., Voce, A. and Burns, R. (2017). Research into Methamphetamine Use in the Australian Capital Territory. National Drug Research Institute, Curtin University, Perth, Western Australia.
3. Prangnell, A., Dong, H., Daly, P., Milloy, M. J., Kerr, T., & Hayashi, K. (2017). Declining rates of health problems associated with crack smoking during the expansion of crack pipe distribution in Vancouver, Canada. *BMC Public Health*, 17, 163.
4. Degenhardt, L., Sara, G., McKetin, R., Roxburgh, A., Dobbins, T., Farrell, M., Burns, L., & Hall, WD. (2017). Crystalline methamphetamine use and methamphetamine-related harms in Australia. *Drug and Alcohol Review*; 36(2):160-170.
5. Helschober, B., Miller, MA. Methamphetamine abuse in California. NIDA research monograph. 1991; 115:60-71.
6. Matsumoto, T., Kamijo, A., Miyakawa, T., Endo, K., Yabana, T., Kishimoto, H, et al. Methamphetamine in Japan: the consequences of methamphetamine abuse as a function of route of administration. *Addiction* (Abingdon, England). 2002; 97(7):809-17.
7. McKetin, R., et al. (2008). Characteristics and harms associated with injecting versus smoking methamphetamine among methamphetamine entrants. *Drug and Alcohol Review*, 27, 277-85.
8. Hughes, C. (2014). *Drugs and the law: What you need to know*. Sydney: National Drug and Alcohol Research Centre: UNSW.
9. Strike, C., & Watson, T.M. (2017). Education and equipment for people who smoke crack cocaine in Canada. *Harm Reduction Journal*, 14, 17.
10. Malchy LA, Bungay V, Johnson JL, Buxton J. Do Crack Smoking Practices Change With the Introduction of Safer Crack Kits? *Canadian Journal of Public Health*. 2011;102(3):188–92.
11. Karlsson, A., & Peacock, A. (2019). Crystal methamphetamine use, routes of administration and use of commercial ball pipes among people who inject drugs in Australia. *Drug Trends Bulletin Series*. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
12. Australian Injecting & Illicit Drug Users League (AIVL). Hidden Harms. Methamphetamine use and routes of transmission of blood born viruses and sexually transmissible infections. July 2019.
13. International Drug Policy Consortium. Report by the Special Commission of Inquiry into crystal-methamphetamine and other amphetamine-type stimulants. Volume 2, January 2020.
14. Small, D., Drucker, E. Return to Galileo? The Inquisition of the International Narcotic Control Board. *Harm Reduction Journal*. 5, 16 (2008).

## Participating Researchers and Research Centres

- ❖ Dr Rachel Sutherland, Antonia Karlsson, Julia Uporova, Daisy Gibbs, Rosie Swanton, Olivia Price, Udesha Chandrasena, Professor Louisa Degenhardt, Professor Michael Farrell and Associate Professor Amy Peacock, National Drug and Alcohol Research Centre, University of New South Wales, New South Wales;
- ❖ Cristal Hall, Sarah Eddy, Dr Campbell Aitken and Professor Paul Dietze, Burnet Institute Victoria;
- ❖ Yalei Wilson and Associate Professor Raimondo Bruno, School of Psychology, University of Tasmania, Tasmania;
- ❖ Dr Jodie Grigg and Professor Simon Lenton, National Drug Research Institute and EnAble Institute, Curtin University, Western Australia;
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