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# DPMP Evidence Hub: Evidence Brief for harm reduction initiatives

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Australia has an overarching framework for drug policy: harm minimisation. Harm minimisation involves policies and practices in three areas: supply reduction (reducing the supply of drugs through border control and policing), demand reduction (reducing the demand for drugs through prevention, early intervention and treatment) and harm reduction (reducing the harms associated with drug use without a precondition of ceasing or reducing use). All three areas are needed to successfully respond to drug use and drug-related harm. According to the latest Australian drug budget report, drug expenditure in 2021/22 showed two-thirds (64%) was allocated to law enforcement, followed by 34% for treatment and prevention, and only 1.6% allocated to harm reduction (Ritter et al., 2024).

In this Evidence Brief we summarize the evidence supporting key harm reduction interventions.

## Supervised injecting facilities

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Supervised injecting facilities (SIFs; also referred to as overdose prevention sites or drug consumption rooms) are designed to reduce drug-related harms by providing a secure environment in which clients can use drugs that they obtain elsewhere. They are designed to provide for a speedy emergency response to overdose and connect clients to health and social services.

- Global evidence suggests that SIFs can play a significant role in preventing drug-related deaths and associated harm (Levengood et al., 2021).
- Evidence from Vancouver shows a 26% reduction in overdose deaths in areas located nearby the SIF (Marshall et al., 2011), with SIF use associated with a 54% reduction in risk of all-cause mortality (Kennedy et al., 2019).
- In Sydney following the opening of the SIF, monthly ambulance attendances declined by 68% (Salmon et al., 2010), in Melbourne, frequent SIF use was directly related to a 60% reduction in the incidence of non-fatal overdoses attended by ambulance (Medically Supervised Injecting Room Review Panel, 2020).
- People using SIFs were found to have higher uptake of drug treatment services in Vancouver (Wood et al., 2007) and Sydney (Kimber et al., 2008), and higher primary healthcare attendance (Folch et al., 2018).
- In the first 18 months of operation, the Melbourne SIF provided >10,000 health and social referrals to clients (Medically Supervised Injecting Room Review Panel, 2020).
- Using SIFs is associated with a 70% reduction in syringe sharing (Folch et al., 2018; Kerr et al., 2005), with modelling evidence demonstrating the Vancouver SIF prevents 5 – 6 newly acquired HIV infections, annually (Pinkerton, 2011).
- Clients using SIFs have been found to have higher uptake for treatment for injecting-related injuries (Lloyd-Smith et al., 2010), which have significant healthcare costs, and reported lower rates of reusing syringes and public injecting (Stoltz et al., 2007).

- Clients attending SIFs are significantly more likely to report safely disposing injecting equipment (Folch et al., 2018; Stoltz et al., 2007). Following the opening of the Sydney and Vancouver SIF sites, there was an observed reduction in public injecting and inappropriately discarded injecting equipment (Wood et al., 2004; Salmon et al., 2007).
- In Melbourne, clients found to be using the Melbourne SIF were more likely to report homelessness, risky drug-taking behaviours, and poor health outcomes (van den Boom et al., 2021), meaning those most marginalised are now linked with a service that can offer health and social support.

## Needle and syringe programs

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Needle and syringe programs (NSPs) involve the provision of sterile injecting equipment to people who inject drugs to prevent blood borne viral infections such as hepatitis C that are often acquired through sharing of contaminated injecting equipment.

- Evidence shows NSPs have been found to reduce HIV and hepatitis C transmission and high-risk injecting practices (Aspinall et al., 2014; Fernandes et al., 2017; Palmateer et al., 2022).
- Evidence from the Netherlands, Canada and Melbourne suggest that the effects of NSPs are greatest when coverage is high and the intervention is combined with high coverage OAT (van Santen et al., 2023).
- An Australian study measuring the cost effectiveness of NSPs estimated that NSPs reduced HIV incidence by 34 – 70% (192 – 873 cases) and hepatitis C by 15 – 43% (19,000 – 77,000 cases) during 2000 – 2019, with an estimated AUD\$70 – 220 million saved in healthcare costs during this time period (Kwon J et al., 2012).
- A recent study in Canada estimated the cost effectiveness of NSPs in relation to skin and soft tissue, and vascular infections (SSTVI) among people who inject drugs. The study estimated that NSP implementation led to 788 fewer deaths from SSTVI over the five-year period compared to not having NSPs, which corresponded to a 24% lower relative hazard of SSTVI-related mortality. Further, NSPs were associated with fewer healthcare system contacts and lower hazards of recurrent outpatient visits and ED visits to treat SSTVIs (Lim J et al., 2024).
- Cost effectiveness estimates for scaling up prison NSPs across all Australian prisons shows that every dollar invested in prison NSPs could save more than two dollars in treatment costs for hepatitis C and injecting-related infections (Houdroge F et al., 2025).

## Drug checking services

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Drug checking services (sometimes called pill testing) aim to provide information about the contents of drugs so that consumers can make a more informed choice prior to consumption. They also offer connection to a health worker for groups of people less likely to seek information from healthcare providers. Drug checking can be provided as a mobile service at music festivals or other events associated with young people and drug consumption or can be offered as a fixed site service.

- CanTEST, a fixed site drug checking service in Canberra, has been evaluated showing that in its first six-months of operation, only half of the drug samples tested (53%, n=323) detected the expected drug. When the substance was not as expected, clients were 4 times more likely to report that they would 'definitely not' use the substance, with 10% of samples tested being discarded at the service. CanTEST released monthly reports and two community notices about harmful substances, and provided 1006 alcohol and other drug and/or healthcare interventions to service users (Olsen A et al., 2023).
- In Australia, the independent evaluation of Canberra's festival-based drug checking pilot found that 35% of festivalgoers who had their drug tested indicated that they would change their behaviour as a result (18% said they would not consume the drug, and 12% said they would consume less; Makkai et al., 2018).
- Drug checking has been found to indirectly impact drug market supply, with evidence from the Netherlands suggesting that identified dangerous products were found to leave the drug market following pill testing and public warning campaigns (Spruit, 2001).
- In the UK, two-thirds of festivalgoers who attended a drug checking service and were told that their drug samples did not match their intended purchase chose to discard their drugs (Measham, 2019).

## Drug decriminalisation

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Aside from the health harms associated with drug use, harms can also arise from our responses to drugs, in this case, harms from engagement with the criminal justice system. Decriminalisation, the removal of criminal penalties for drug use/possession for personal use, is a harm reduction intervention because it replaces a criminal justice response with a health response. Criminal penalties are retained for drug supply.

- Evidence suggests that individuals who avoid a criminal record have improved social, educational and employment outcomes, which reduces costs to both individuals and the wider community (Hughes et al., 2016).
- Decriminalisation leads to reduced need for and use of police, court and prison resources. In California, total law enforcement costs were substantially reduced (from \$17 million in the first half of 1975 to \$4.4 million in the first half of 1976) after decriminalisation in 1975 (Single, Christie, & Ali, 2000).
- Portugal introduced decriminalisation of all drugs in 2001, which led to reduced individual and societal level costs associated with drugs, including reduced burden and costs to the criminal justice system (reduced pressure on prisons and the need to build new ones), reduced incidence of new blood-borne viral infections, fewer drug-related deaths and no or very small effects on the rates of drug use (Goncalves, Lourenco, & Silva, 2015; Hughes & Stevens, 2010).
- Portugal's drug law reform did not result in major increases in cannabis use, particularly in comparison to Spain which did not introduce decriminalisation but saw substantial increases in reported cannabis use (Hughes & Stevens, 2010). Further, documented reductions were found in problematic drug use, drug-related harms and criminal justice overcrowding.

Additionally, drug offences decreased while uptake of drug treatment increased (Hughes, & Stevens, 2010).

- Evidence from British Columbia suggests that decriminalization of use/possession of illegal drugs resulted in an expected dramatic drop in arrests with no impact on trends in drug related deaths (Ministry of Mental Health and Addiction, 2024).

## Opioid agonist therapy

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Opioid agonist therapy (OAT) is both a demand reduction (drug treatment) and harm reduction intervention. In the context of drug treatment, it aims to reduce illicit drug use; in the context of harm reduction it aims to reduce the significant harms associated with opioid use, particularly injecting these drugs, such as overdose and HIV, Hepatitis C and other injecting related harms. OAT in Australia currently involves providing clients with a prescribed opioid medication (methadone or buprenorphine).

- People receiving OAT have a reduced risk of blood borne virus acquisition and obtaining injecting-related injury or infections (Platt et al., 2018; MacArthur et al., 2014; Colledge-Frisby et al., 2022).
- Retention in OAT is associated with reduced illicit opioid consumption compared to non-medicinal treatments (e.g., drug counselling; Mattick et al., 2009).
- Studies have demonstrated that OAT is associated with a reduction in criminal activity (Oliver et al., 2010; Bukten et al., 2012; Russolillo et al., 2019).
- The most recent authoritative international review found OAT is associated with a reduction in opioid-related and all-cause mortality (Santo et al., 2021), and recent evidence from New South Wales shows that being on OAT reduces fatal and non-fatal drug overdose compared to periods of no-treatment (Jones et al., 2022), including among those with physical comorbidities (Larney et al, 2023).
- OAT reduces deaths among opioid dependent people who are released from prison and at greater risk of overdose. Crude mortality rates among opioid dependent people who were released from prison in New South Wales found the lowest mortality rate among people who received continuous retention in OAT following prison release (6.4 per 1000 person years), with the highest mortality rate among people with no OAT (36.7 per 1000 person years; Degenhardt et al., 2014).
- Retention in OAT has also been associated with lower rates of ambulance attendance in the first 3-months after prison release among men who inject drugs in Victoria (Curtis et al., 2023).
- Alternative OAT drugs such as hydromorphone and diacetylmorphine have been shown to be effective treatment options overseas (e.g., McNair et al., 2023) but have not been made widely available in Australia.

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