# NEEDLE AND SYRINGE PROGRAMS IN NSW: OPPORTUNITIES FOR INNOVATION

Needle and Syringe Programs have been a highly successful component of NSW's blood-borne viruses prevention efforts. As our understanding of NSP participants' needs continue to evolve, renewed innovation in NSP service models is needed to end HIV transmission in all people who inject drugs and reduce other drug-related harms.

#### Introduction

Needle and Syringe Programs (NSPs) are a critical component of NSW's success in the ongoing prevention of HIV and other bloodborne viruses (BBVs) transmission.

NSPs are the single most important and costeffective strategy in reducing drug-related harms among people who inject drugs (PWID).<sup>1</sup> Their fundamental role has been recognised nationally.<sup>2</sup>

#### **The NSP Policy Context**

Australia is a world leader in NSP policy, the distribution of sterile equipment, and HIV and other BBV interventions, including Hepatitis C (HCV).<sup>3</sup>

NSPs have been a part of Australian BBV policy frameworks since they were first introduced to Australia in 1986. The Eighth National HIV Strategy, the Fifth National Hepatitis C Strategy, the National Drug Strategy, the NSW HIV Strategy 2021-2025, and the forthcoming NSW Hepatitis C Strategy all acknowledge the critical role of NSPs in BBV prevention and harm reduction and commit to prioritising service improvement.

In 2020, the NSW Special Commission of Inquiry into crystal methamphetamine and other amphetamine-type stimulants made a number of recommendations related to NSP services. <sup>8</sup> The NSW Government is yet to respond in full to this report.

NSPs have been incredibly effective for decades, however, funding commitments have stagnated, national spending on harm reduction

We pay our respects to the Traditional Owners of all the lands on which we work, and acknowledge their Elders, past, present and emerging.

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initiatives has decreased, and community needs are evolving.

In addition, funding from the NSW Government for programs and services for sexuality and gender diverse people has been minimal, ad-hoc and has in no way reflected the scale and disproportionate burden our communities face.

ACON firmly believes that alcohol and other drug use should be framed as a health and social issue, rather than a criminal one. Despite Australia's 'three pillar' approach to harm minimisation, <sup>10</sup> funding to each of these pillars is extremely imbalanced, with a substantial focus on law enforcement, followed by treatment, prevention, and harm reduction. <sup>11</sup>

A redirection of investment across the three pillars, to incorporate a greater focus on brief and early interventions as well as prevention and harm reduction efforts would improve health outcomes for people who use drugs.<sup>12</sup>

NSW currently lacks a whole of government policy approach to alcohol and other drugs, which is urgently needed to renew investment and provide long-term programmatic commitment to addressing alcohol and other drug use in NSW, including among priority populations that face a disproportionate burden, like LGBTQ people.<sup>13</sup>

NSW has the ambitious aim of eliminating HIV transmission. <sup>14</sup> The NSP is an essential component among a suite of approaches in NSW's Ending HIV efforts, and as such, a critical location for elimination efforts.

In 2020, ACON produced a <u>Drug Harm</u>

<u>Reduction and Treatment policy paper</u> outlining opportunities to improve outcomes for our communities.<sup>15</sup>

The present paper builds on the recommendations of the 2020 paper, calling for renewed funding commitments to capitalise on the success of NSPs, and recommends innovations that will increase the program's effectiveness in NSW, in line with NSW's Ending HIV goals.

#### The NSP success story

Receptive needle and syringe sharing is a major risk factor for the transmission of HIV, viral hepatitis and other BBVs among people who inject drugs.<sup>16</sup>

NSPs help to prevent transmission of HIV and other blood-borne viruses primarily by providing sterile injecting and ancillary equipment to people who inject drugs. <sup>17</sup> In NSW, NSPs are a mix of outlet types and service delivery models. These include primary NSPs, secondary NSPs, automatic dispensing machines (ADMs) and pharmacy outlets.

Some NSPs also work to reduce harms and prevent the transmission of BBVs by providing additional services such as harm reduction advice, brief interventions, referrals, links to HIV and BBV testing and treatment, equipment disposal, condoms and lubricant, and takehome naloxone. <sup>18</sup> These additional services, especially tailored brief interventions and advice mean that the NSP is a unique place to offer early interventions into an individual's drug use.

Harm reduction services beyond reducing the risk of BBV transmission, such as reducing risks of overdose, are an important function of NSPs, however, this paper is primarily focused on the role NSPs play in reducing the risk of BBV transmission. Importantly, there are many overlaps, and approaching any risk practice in a holistic manner will ultimately be more effective at reducing harms.

There is overwhelming evidence that NSPs are effective at reducing HIV prevalence among PWID. 19,20,21,22 Research has also found that NSPs are associated with increased treatment-seeking, and reductions in drug use risk behaviours. 23

As the number of NSP outlets and the distribution of units of injecting equipment increases, there has been a documented decrease in the number of people reporting receptive needle and syringe sharing.<sup>24</sup>

While there are broadly negative attitudes toward PWID, attitudes toward harm reduction initiatives such as NSPs remain positive in Australia, with the majority of Australians supporting such measures.<sup>25</sup> This support

increases when the public is genuinely informed about such measures, suggesting a place for media, policy makers and law enforcement to convey accurate information about harm reduction.<sup>26</sup>

Despite these established successes, some challenges remain. Receptive needle and syringe sharing has decreased but continues to be of concern, and sharing of ancillary equipment (such as tourniquets and spoons), which is of particular concern for HCV transmission, remains persistently high.<sup>27</sup>

The persistence of receptive syringe sharing and the sharing of ancillary equipment indicates the provision of sterile equipment via existing models and current funding allocations is not sufficient.

#### Key issues

Innovation is primarily needed to address the key issues that may prevent someone from accessing sterile equipment: stigma and discrimination, access, and equity.

These key issues are produced by the social determinants of health, that is, the structural factors that shape daily life and impact health outcomes.<sup>28</sup>

In this context, they include: class; gender; cultural background; government policies surrounding drug use; access to housing, healthcare and social services; education status; occupation and income.<sup>29</sup> All of these factors shape an individual's life circumstances and health outcomes, and often result in inequities among people who inject drugs.

In addition, particular attention must be paid to vulnerable populations, such as Aboriginal and Torres Strait Islander people, LGBTQ people, women, young people, people who are incarcerated, and especially people at the intersections of these populations.

NSPs have not been as successful at controlling HCV in Australia, especially prior to the introduction of direct acting antiviral (DAA) treatment in Australia in 2016.<sup>30</sup> While this paper primarily focuses on the role of NSPs in HIV transmission, as that is ACON's core purpose,

ACON recognises this as an ongoing and critical issue, and defers to the expertise of organisations such as Hepatitis NSW in this regard.

We also recognise that addressing many of the issues outlined here will have positive impacts on HCV transmission, as well as HIV transmission.

It is critical to the success of NSPs in eliminating HIV and reducing transmission of HCV that the social determinants that produce these issues are addressed in new and innovative ways.

HIV transmissions in People who Inject Drugs

In NSW, people who inject drugs represented 6.5% of all HIV notifications from 1981-2020. This is broken down by people who inject drugs (3.1%) and men who have sex with men who inject drugs (3.4%).<sup>31</sup>

The proportion of notifications among people who inject drugs has steadily decreased since 2010, and has increased among men who have sex with men who inject drugs. In 2020, people who inject drugs accounted for 1.5% of notifications, and men who have sex with men who inject drugs represented 9.7% of all new HIV notifications. 32

People who inject drugs therefore represent a sizeable proportion of new HIV notifications in NSW, especially among men who have sex with men who inject drugs.

While HCV notifications in NSW have been steadily declining (except in 2016, which saw a sharp increase to coincide with the introduction of DAA treatment in Australia), in 2020 there were 3,026 HCV notifications in NSW.<sup>33</sup> Increased efforts are needed to reach NSW's target of HCV elimination by 2028.<sup>34</sup> This means increasing the investment in NSPs, particularly innovative strategies aimed at PWID who are not currently accessing NSPs.

Stigma and discrimination

People who inject drugs consistently report high levels of stigma, particularly in healthcare settings. 35,36 86% of the general public, and 56%

of healthcare workers report negative attitudes towards PWID.<sup>37,38</sup>

These experiences are compounded for those who experience stigma in a multitude of ways, such as people living with HIV, Aboriginal and Torres Strait Islander people, LGBTQ people, sex workers, people who have been incarcerated, people experiencing mental distress, and people who experience homelessness. In fact, intersecting forms of stigma experienced by gay and bisexual men who inject drugs can discourage them from accessing support.<sup>39</sup>

Stigma exists in real, perceived, and internalised forms. 40 Legal frameworks and public perceptions of people who inject drugs as a 'problem', 41 or morally troubled 42 rather than people with agency, contribute to experiences of stigma that have far-reaching ramifications.

When people who inject drugs experience stigma in healthcare settings and in NSPs, they are less likely to seek help for future health concerns, or access NSPs in future. 43,44

PWID typically report more stigma at NSPs based in pharmacies and hospitals, while primary NSPs tend to be friendlier and less judgemental. 45 Primary NSPs are much more likely to be staffed by peers, who are able to form trusting relationships with PWID. 46

Experiences of stigma are also associated with poorer mental health outcomes, higher rates of psychological distress, <sup>47</sup> less frequent visits to healthcare providers, restricted disclosure of health conditions, and a decreased adherence to treatments and other health regiments. <sup>48</sup>

Research also finds that people who report greater levels of perceived stigma and discrimination were significantly more likely to engage in risky injecting practices, such as reusing a needle or syringe after someone else.<sup>49</sup>

It is therefore critical that measures to address stigma are introduced, because simply increasing distribution of equipment will not adequately address the way that stigma and other social factors interact with injecting behaviours. <sup>50</sup> Areas of opportunity to address stigma are outlined later in this paper.

Accessing NSPs

While stigma presents a barrier for NSP access, there are other issues which limit access to NSPs, especially for certain populations.

Other access issues include a lack of awareness, inconvenient locations, transport issues, limited opening hours, fear of police harassment or excessive surveillance. <sup>51</sup> NSPs tend to be more available in urban centres, limiting options for those in rural or regional areas. <sup>52,53</sup>

Generally, NSPs aim to reach more of the population by offering services via different points of access, such as primary and secondary NSPs, pharmacies, and ADMs.<sup>54</sup>

Participants in one study reported that ADMs are often broken, out of stock in particular equipment, or in areas of excessive surveillance, rendering them functionally inaccessible for many.<sup>55</sup>

The limited suite of stocked equipment is also a challenging factor, particularly at ADMs and pharmacy outlets.<sup>56</sup>

While more than half of NSP users access both pharmacies and primary NSPs, many have a preference. <sup>57</sup> Those who mostly access primary NSPs tend to access pharmacies more reluctantly when primary NSPs are closed – on evenings, weekends, and public holidays. <sup>58</sup>

Those who access pharmacy NSPs exclusively are less likely to have received treatment for their drug use, or undergone a HCV test, suggesting they may be more disengaged with health services. 59

Barriers to accessing NSPs are concerning not only because a lack of access to sterile equipment increases the risk of receptive syringe sharing and BBV transmission, but also because NSPs are often a first point of contact with the health system and provide crucial information and intervention services to these highly stigmatised and at-risk populations.

The unique needs of LGBTQ clients

In addition to experiences of stigma, LGBTQ clients face particular issues at NSPs as a result of some of the unique needs of this population.

Gay and bisexual men with HIV are considerably more likely than HIV negative gay and bisexual men to report injecting drug use (22.4% vs 2.3%),<sup>60</sup> and to engage in sexualised drug use, though rates of sexualised drug use among HIV-negative gay and bisexual men have been increasing.<sup>61</sup>

Research regarding sexualised drug use among men who have sex with men tends to present a strong link between methamphetamine use, risky sexual behaviours (including unprotected sex and injecting drug use), and poor health outcomes, without necessarily seeking to understand how these practices are linked, framing drug use as the primary concern.<sup>62</sup>

This over-problematising of drug use further stigmatises the men who engage in these practices, discouraging them from seeking help, and discounting their agency. NSPs therefore need to have particular understandings of sexualised drug use, and meaningful inclusion of people living with HIV, and provide for their clients accordingly.

In recent years, the number of PWID using performance and image enhancing drugs (PIEDs) has substantially increased. In NSW, 16% of PWID reported PIEDs as the drug they last injected in 2020,63 up from 4% in 2009.64 51% of users under 25 reported last using PIEDs, and 59% of new initiates reported most commonly using PIEDs.65

Gay and bisexual men tend to be over-represented in studies of PIEDs users, with one study indicating that 42% of participants were gay and bisexual men.<sup>66</sup> While gay and bisexual men are more likely to engage in regular HIV testing practices, the availability of equipment suited to PIEDs users at NSPs poses some risks of BBV transmission, especially because this population tends to be under-informed about the particular risks associated with their injecting practices, and less likely to test for HCV than other PWID.<sup>67,68,69,70</sup>

While there is very little data on trans people using NSPs to access sterile equipment for gender affirmation practices, there is some evidence to indicate that a lack of medically prescribed gender affirming care leads some people to using hormones obtained outside of formal health structures.<sup>71,72</sup> Of the limited data

available, studies outside of Australia indicate that 20% of trans people who inject their hormones access equipment via NSPs.<sup>73</sup>

Globally, trans people are significantly more likely to have HIV. The As HIV notifications data in NSW does not adequately record trans people, it is not known if this global trend is mirrored in Australia. It is therefore important that, as well as better data collection and trans-specific HIV campaigns, NSP services are able to adapt and accommodate the needs of trans clients, including culturally safe services for Sistergirls and Brotherboys.

Population-based barriers to NSP access

As well as LGBTQ people, other priority populations face barriers to accessing NSPs.

The client base of NSPs is predominantly older, Anglo and male, <sup>76</sup> with evidence indicating that young people and women are more likely to access sterile equipment outside of the NSP setting, and therefore miss out on benefits such as harm reduction information, brief interventions, and referrals.<sup>77,78,79</sup>

Much of the data collected about NSPs relates specifically to this client base, indicating large information gaps about people from culturally, ethnically, and linguistically diverse, migrant and refugee backgrounds, as well as women and young people.<sup>80</sup>

Aboriginal and Torres Strait islander also face particular challenges discussed in a subsequent section. The compounding structural factors impacting these populations produce additional barriers to healthcare, including NSPs.

The data that we do have about women who inject drugs indicates that they tend to experience increased stigma and discrimination, including from people who use drugs, because of gendered social norms that perceive women as care givers.<sup>81</sup>

These gendered norms also tend to dictate that in heterosexual partnerships, men are the ones who control the purchase, preparation and administration of drugs, meaning women are less likely to attend NSPs.<sup>82</sup>

Needle sharing commonly occurs between sexual partners who inject drugs, with women more likely to be injected after their partner, increasing their risk of BBV transmission.<sup>83,84</sup>

Women also experience violence and threats of violence that undermine their ability to practice safer sex and drug use, both in contexts with intimate partners, and during sex work. 85 It is well established that intimate partner violence is associated with poorer sexual health outcomes. 86

Young people, as well as new initiates and infrequent users are also less likely to identify as people who inject drugs because of the stigma attached to this label, and as a result, they tend to not see NSPs as a service relevant to them,<sup>87</sup> and are less engaged with health services.<sup>88</sup>

Younger people, new initiates, and infrequent users tend to be at higher risk of HIV and other BBV transmission because they are less informed about the risks involved, and their lack of contact with NSPs and other health services mean there are few formal opportunities to rectify this.<sup>89</sup>

#### NSP access in custodial settings

A further population where access is critically limited is among currently incarcerated people. There are no NSPs in Australian prisons, and great resistance at a governmental level to change this, 90 despite recommendations from researchers and policymakers alike, including within the Fifth National Hepatitis C Strategy, 91,92,93,94

Prevalence of HCV in particular is high among the prison population, with studies suggesting between 22%<sup>95</sup> to one third<sup>96</sup> of inmates have tested positive to HCV.

Sterile equipment in prisons, which is freely available at NSPs outside of custodial settings, is reported to be between \$50-350 for a single needle/syringe, with \$100-150 most commonly reported. Used needle/syringes have a reported cost of \$40, and can sometimes remain in circulation for two or three years. Almost all people discharged from prison who reported injecting drugs in prison said they had shared injecting equipment. 8

The use of used equipment is therefore done largely out of necessity in these settings, where other options are severely limited. Indeed, prisoners report other risk-mitigation strategies, such as allowing HCV-negative inmates to inject before HCV-positive people.<sup>99</sup>

HIV in Aboriginal and Torres Strait Islander communities

Between 2010-2018, HIV notifications decreased for Australian-born non-Indigenous people, but simultaneously increased among Aboriginal and Torres Strait Islander people. 100,101 In 2020, four HIV notifications occurred in this population. 102

In the goal to eliminate HIV transmission, particular consideration is therefore required to ensure that services, practices and systems are culturally safe and empowering for Aboriginal and Torres Strait Islander communities.

While the majority of new HIV notifications in Aboriginal and Torres Strait Islander populations occurs in men who have sex with men, there is a larger proportion of HIV notifications attributed to injecting drug use than in the Australian-born non-Indigenous population.<sup>103</sup>

Research also indicates that Aboriginal and Torres Strait Islander people require more information about BBV transmission and treatment, and more equipment to minimise ancillary equipment sharing.<sup>104</sup>

Aboriginal and Torres Strait Islander people are also over-incarcerated, 105 and experience extreme levels of racism which has an added health burden. 106,107,108,109

Much of the evidence surrounding the health disparities of Aboriginal and Torres Strait Islander people tend to focus overly on the deficits and problems, without acknowledging strengths and capabilities, thereby continuing to produce disparities in unhelpful ways.<sup>110</sup>

The NSP is an important site to reduce HIV transmissions and drug-related harm, in ways that are empowering and destigmatising.

Therefore, it is necessary to consider how the NSP service model is culturally safe for Aboriginal and Torres Strait Islander clients.

#### COVID-19

The challenges presented by the impacts of the COVID-19 pandemic will continue to make themselves felt in the years to come.

So far, nationwide NSP data indicates that following a short, sharp increase in occasions of service and equipment dispensed at the beginning of the pandemic, 2020/21 saw a 30% decline in occasions of service over the last five years, and a 14% decline in per capita syringe coverage from 2019/20.<sup>111</sup>

The increase is most likely attributed to clients being recommended to take more equipment, in order to minimise unnecessary movement during lockdowns and limit the spread of COVID-19. The subsequent decrease then reflects the reduced access as a result of the pandemic and associated restrictions.<sup>112</sup>

Interview and survey research also indicate that around 12% of PWID reported greater difficulties accessing equipment since the introduction of measures related to COVID-19.<sup>113</sup>

The pandemic has also created other issues for PWID that may impact NSP services, including decreased supply, over policing relating to restrictions, and fewer treatment facilities or opportunities for interventions.<sup>114,115,116</sup> There has also been a documented decrease in sexualised drug use among gay and bisexual men in Australia during periods of restriction, and a subsequent documented increase as restrictions eased.<sup>117</sup>

COVID-19 has presented challenges for many community health service models, including NSPs, and it is important to review data as we move out of the critical phases of the pandemic to ensure these challenges are not enduring.

#### **Areas of opportunity**

There are several areas of opportunity that, with renewed investment and interest in rights-based strategies, could further the success of NSPs and minimise the inequities produced by the social determinants of health.<sup>118</sup>

Investigate new models for accessibility

Access and equity are key challenges for the distribution of sterile equipment to people who inject drugs via NSPs.

Many of the recommendations in this paper are designed to address stigma, accessibility, and equity of access for people who inject drugs and specific populations within this cohort, including LGBTQ people, Aboriginal and Torres Strait Islander people, and people who are incarcerated.

Improving the provision of sterile equipment can also be addressed by investigating options that expand the geographic reach of NSPs and their hours of operation.

This could be through funding for extended opening hours for primary NSPs, increasing availability of functioning automatic dispensing machines, and ensuring NSP services are wheelchair accessible.

ACON's Hunter branch operates an extremely effective outreach service at its NSP, allowing for clients who may be unable to travel to access equipment, and expanding the geographic reach of the service so that more clients in rural areas are able to access equipment. More detail on this service is provided in the Appendix.

Outreach models present a great opportunity to improve access, especially to clients in regional and rural areas and Aboriginal and Torres Strait Islander clients.<sup>119</sup>

It may also be worthwhile investigating the possibility of increasing primary NSP outlet coverage in areas where BBV notifications are highest or increasing. HCV notifications are highest in Murrumbidgee, Western NSW and Far West NSW LHDs, three of only four LHDs in NSW that are not serviced by any primary NSPs. 120

It's also important that information provided at NSPs is accessible – whether that means it is available in easy-read, other languages, or culturally safe formats.

Finally, it's necessary to understand who is accessing NSP services in order to understand where the service gaps are. Improving collection of data, while maintaining client anonymity and responding sensitively to privacy concerns, is

therefore critical to understand who uses the NSP, and more importantly, who does not, and why.<sup>121</sup>

#### Changes to the equipment offered

Questions of access are not solely limited to the ability to access the NSP, but also the availability of certain equipment offered by the service itself.

Investigating options related to the provision of equipment provides opportunities for harm reduction and the provision of sterile equipment to those who need it.

In Canada, a trial of NSPs to provide sterile smoking equipment, such as pipes, lead to a decrease in injecting drug use and receptive needle and syringe sharing among the sample. 122 Investigating options such as this could have similar effects in Australia.

As the Eighth National HIV Strategy outlines, there are broader issues relating to noninjecting drug use and HIV prevention, including sexualised drug use among gay, bisexual and queer men (cis and trans), trans women, and non-binary people. 123 Such practices have historically been associated with higher rates of HIV and other STIs, though the cause or reasons for this are not clearly established and require further investigation.<sup>124</sup> There are opportunities for further harm reduction efforts in this regard, however, it is largely beyond the scope of this paper. ACON's M3THOD service, detailed in the Appendix, works to address harms experienced by people in our communities engaged in sexualised drug use, both injecting and other forms of use.

The increase of people using performance and image enhancing drugs (PIEDs), and the particular amounts and types of equipment required for cycles of these substances means that tailored harm reduction initiatives, the provision of sufficient amounts of equipment, and training for NSP staff around PIEDs use is needed to ensure safer injecting practices among these populations. <sup>125</sup>

While it may appear that PIEDs users require large volumes of equipment, causing some NSPs to put restrictions in place, studies demonstrate

that state-wide spending on this equipment is less than 1% of the total budget, meaning that the provision of enough sterile equipment does not necessarily have to come at a high cost. 126

It is critical for PIEDs users, and trans people accessing NSPs for hormone therapy, that NSPs are able to provide equipment suitable for intramuscular injection. Syringes of an appropriate size for these practices have historically been removed from NSPs to discourage methadone injection, however, this practice tends to leave populations underserviced, rather than discouraged, and has flow on effects for people using these syringes for other purposes.

Finally, substantial budget increases are necessary to provide sufficient ancillary equipment to all NSP clients. Sharing of ancillary equipment remains consistently high, and is a risk factor for BBV transmission, and in particular the transmission of HCV.<sup>129</sup>

Ancillary equipment is not typically provided free of charge at pharmacy NSPs, and many NSPs face budget limitations in the provision of this equipment. <sup>130</sup> It is therefore critical that budget constraints and preferred suppliers are reviewed so that there is adequate and cost-effective provision of free, sterile ancillary equipment across NSW. Without this, the risk of BBV transmission among people who inject drugs will persist.

Recommendation 1: That the NSW Government increase NSP funding as a matter of priority to improve service accessibility and availability of equipment.

#### Expand the role of peers

Peer-based services have enjoyed considerable success in a range of health service models, especially in mental health<sup>131</sup> and HIV interventions.<sup>132</sup>

The HIV sector has long operated from the fundamental guiding principle of greater and more meaningful involvement of people living with HIV (GIPA/MIPA). 133 This principle means

that HIV responses in NSW are founded from a place of care, intrinsic understanding, and adaptability.

NSPs that are staffed by peers are best placed to work with their populations, provide education and support, and build trusting relationships with people who inject drugs, a group that is typically stigmatised and therefore disenfranchised from accessing or engaging with health services.<sup>134</sup>

Peer oriented programs that build the capacity of the peer workforce to conduct early interventions and health service navigation should be considered.

Peers are best placed to understand the particular experiences and practices of people who inject drugs, and are therefore able to connect and reach populations who may be otherwise disengaged with such services, including Aboriginal and Torres Strait Islander people, women, young people, culturally, ethnically and linguistically diverse people, LGBTQ people, people who engage in sexualised drug use, or people who use PIEDs or other hormone injections. <sup>135</sup>

Peers from diverse cultural backgrounds, including Aboriginal and Torres Strait Islander peers, ensure that services are culturally safe and informed.

Research indicates that community attachment and belonging is significantly associated with reduced internalised stigma, especially among networks of PWID who do not share equipment. 136 Communities of PWID are therefore places where harm reduction can be promoted, and stigma can be reduced through social connection. 137

Risk-reduction is strongest when it harnesses the language and strategies of the populations engaging in these behaviours. <sup>138</sup> Programs and interventions have more success when they acknowledge the agency of PWID, the communities of care they operate within, and the unique circumstances of a community's patterns of drug use. <sup>139</sup>

Peers have played a critical role in informal knowledge sharing surrounding HIV prevention.<sup>140</sup> Through status sharing, techniques such as talk, test, trust, <sup>141</sup> U=U, <sup>142</sup>

and linkage to testing and treatment, peers continue to keep each other safe and prevent HIV transmission via knowledge and information sharing.

Peer information sharing is therefore important, and especially so for new initiates. People who are new to injecting need information to prevent transmission of BBVs but are much less likely to be connected to services such as NSPs that can provide this information. 143 There is evidence to suggest that new initiates receive the majority of their injecting information from their peers, however, this information isn't always accurate. 144

There is also strong evidence of peer information sharing and cultural competency among gay and bisexual men who engage in sexualised drug use. 145,146 Programs that look to train peer leaders should be considered. Funding community organisations to implement programs that empower peers to share harm reduction strategies would strengthen peer networks and increase the reach and impact of this information.

ACON has long advocated for low threshold (pre)treatment programs that are peer-based. NSPs offer a potential site for such services, and opportunities to build health literacy. It is critical these services include LGBTQ peers, because there are specific barriers for our communities in accessing other forms of treatment. 147

ACON offers several peer-based models of early intervention within our AOD services that could be upscaled and trialled in other settings. These are outlined in the Appendix.

NSPs would therefore greatly benefit from mobilising established peer networks in formal and informal ways to build upon the existing culture of information sharing by providing training to ensure harm reduction is practiced in these communities, and interventions are low threshold, non-judgemental, and understanding of community contexts.

Expanding, upskilling and professionalising the peer workforce is therefore a critical way to reduce experiences of stigma among PWID at NSPs, build trust in order to reach vulnerable

populations, and empower PWID to reduce the risks of BBV transmission. 148

Recommendation 2: That NSPs be adequately funded and supported to expand and upskill their peer workforce.

Allow the secondary distribution of sterile equipment

Legislative frameworks in NSW require modernisation to reflect advances in public health evidence and align with national policy frameworks and best practice in other Australian jurisdictions.

A critical way to expand the peer workforce, thereby reducing stigma and improving access to hard-to-reach populations, is to amend legislation to allow for secondary distribution of sterile equipment, also known as peer distribution.

In NSW, peer distribution was criminalised before HCV was named in Australia – meaning that the legislation does not account for contemporary contexts of the risks of BBV transmission in Australia. 149

These laws undermine our capacity to reduce new BBV infections, and furthermore, propagate stigma by continuing to frame PWID as a problem, rather than people accessing and sharing sterile equipment and information to take control of their health and the health of their community. <sup>150</sup>

Internationally, peer distribution has been found to achieve greater distribution of sterile equipment, reach wider populations, overcome stigma, and provide harm reduction information to critical populations. <sup>151,162</sup>

In NSW, peer distribution tends to happen informally and altruistically, <sup>153</sup> and has been documented as a way to particularly reach young people, women, and people in regional and remote areas. <sup>154</sup> As equipment is distributed through these networks, so too is information about drug treatment services, BBV prevention and treatment, and information about ancillary equipment. <sup>155,156</sup>

Currently, PWID in NSW are reticent to engage in peer distribution for fear of becoming targets of police searches and surveillance.<sup>157</sup>

Removing punitive legislation criminalising peer distribution will sanction this altruistic practice that is critical for providing equipment and information to populations that don't access NSPs. It will also help to reduce stigma by recognising the agency of PWID to care for each other and prevent BBV transmission.

The *Eighth National HIV Strategy* advocates for the removal of barriers surrounding peer distribution. <sup>158</sup> NSW must amend legislation surrounding secondary distribution if we are to align with national policy goals.

Recommendation 3: That the NSW
Government remove all barriers to peer
distribution of sterile injecting
equipment and communicate this action
to support health goals around blood
borne viruses.

Special Commission of Inquiry into crystal methamphetamine and other amphetamine-type stimulants

The NSW government is yet to fully respond to the report of Special Commission of Inquiry into crystal methamphetamine and other amphetamine-type stimulants. This report provides a clear direction for policy makers, supporting harm reduction, community engagement and effective treatment options that are responsive to the needs of communities.

The NSW government should commit to reviewing and implementing these recommendations as they provide critical opportunities to address some of the issues outlined in this paper.

In particular, a whole-of-government alcohol and other drugs strategy that recognises that the use of drugs is a health issue, acknowledges the social determinants of health and drug use, and is responsive to the needs of priority populations, including LGBTQ people is urgently needed.

This strategy must be supported by a Ministerial advisory group that has representation from:

- the academic, research, justice, health, treatment provision and drug education sectors
- Aboriginal organisations or community groups
- people with lived experience of drug use and their communities
- each of the priority populations identified in the NSW AOD policy, including LGBTQ people.<sup>159</sup>

This expertise will ensure the Strategy will provide NSW with a roadmap to effective change and renew commitments to improving health outcomes, harm reduction, and reducing BBV transmission. In its interim response to the report, the NSW government indicated its opposition to trialling an NSP in custodial settings. However, as outlined, people who inject drugs while in prison overwhelmingly report receptive syringe sharing and are therefore at risk of BBV transmission.

There is a fear that providing sterile equipment in prisons will threaten the safety of prison staff, however, there is no evidence to support this. 161

Evaluations of prison NSPs demonstrate increased institutional safety, a reduction in risk behaviour, no increase in drug consumption, <sup>162</sup> fewer drug-use related abscesses, improved infectious disease knowledge among inmates, and almost no drug overdoses. <sup>163</sup> These benefits are compromised when anonymity is not guaranteed. <sup>164</sup>

NSW must amend legislation around the provision of sterile injecting equipment to ensure the legislation is evidence-based, not based in misguided fear, and in line with the national policy frameworks outlined in the Eighth National HIV Strategy, and the Fifth National Hepatitis C Strategy.

It is critical that NSPs have positive working relationships with local police. PWID are often reticent to access NSPs because it makes them a target of police attention, despite police guidelines expressly prohibiting police activity near NSPs.<sup>165</sup>

Police must be made aware of the guidelines in place, and partnerships with NSPs – that exist to

ensure police are aware of harm reduction services and information, and not dissuading people from accessing these services – are carried through at all levels of police operation, including at the street level.

An escalation of law enforcement activity around NSPs is completely contrary to public health goals. Firm commitments are needed to reinforce good practice to ensure NSPs remain effective.

Finally, as earlier outlined, it is critical that stigma around PWID is addressed at a broad level in order to reduce its impact on health-seeking behaviours and overall wellbeing. 166 This is a long-term goal that must be progressively addressed.

Resources must be directed toward changing wider societal attitudes toward PWID, and this necessarily involves partnerships across government, health systems, community organisations, and peers to engage large-scale information campaigns to combat these beliefs and overall reduce health inequities among

Recommendation 4: That the NSW government implement the recommendations of the Report of the Special Commission of Inquiry into crystal methamphetamine and other amphetamine-type stimulants, including:

- The implementation of a whole-ofgovernment alcohol and other drugs strategy.
- b. That a Ministerial Advisory Group be established to support the minister responsible for leading the development and implementation of the NSW AOD policy and Drug Action Plan.
- That the NSW Government pilot, and have independently evaluated, a needle and syringe program in one or more custodial facilities in NSW.
- d. That NSW Health develop and implement a project to reduce stigma.

Recommendation 5: That in responding to the Ice Inquiry, the NSW Government carefully review recommendations and take steps to reduce harm relating to police practice around NSPs.

Invest in innovation and partnerships

While the core function of NSPs is the provision of sterile equipment, and this cannot be compromised, it's important to consider other possibilities within the NSP service model to continue its success, including investment in innovation and partnerships.

There is an opportunity to build partnerships that expand the services NSPs can provide to meet the needs of clients. For many PWID, NSPs are a first point of contact with the health system, and so offer an opportunity to provide services to an otherwise excluded population.<sup>167</sup>

NSPs offer the opportunity to 'lower the threshold' for help-seeking, and are therefore critical sites of early intervention and pre-

treatment. NSPs are best placed to do this because they are non-judgemental and build trust with clients, and they are more able to do this when they are backed by a peer workforce.

It is critical that NSPs address the whole person and the structures that affect their lives.

Because factors such as stigma contribute to practices such as receptive syringe sharing, simply increasing distribution will not eliminate BBV transmission. Strategies that address stigma, including internalised stigma, must be engaged so that PWID feel more empowered and have agency over their healthcare.

NSPs urgently need to provide services that respond to clients' real-life priorities and circumstances in order to address the social determinants of health and overcome the inequities they produce. 168 Clients have requested services such as showers, information for parents and pregnant people, legal advice, housing services, mental health, services for sex workers, and other primary health care. 169

A long-term innovation fund would ensure that opportunities for innovative, holistic care within the NSP service model could be explored, funded, and evaluated, including opportunities to upscale pilot programs, including ACON's M3THOD, which is outlined in the Appendix.

Partnerships with Aboriginal Community
Controlled Health Services, youth services,
women's services including sexual and
reproductive health care, and LGBTQ health
services, including gender affirming care, also
provide opportunities to work closely with
particular at-risk populations in ways that are
tailored, holistic, appropriate and culturally
safe, thereby increasing access, reducing
stigma and improving overall health outcomes.

These organisations are also best placed to work with NSPs to provide inclusivity training for specific populations.

NSPs also present a great opportunity to offer innovative point-of-care testing, for HIV and HCV.

Research based in the US demonstrates a high willingness among PWID to use HIV self-testing kits, especially if they are made available through NSPs.<sup>170</sup>

In NSW, dried blood spot (DBS) testing is available both at NSPs and for take-home self-testing. These kinds of tests are most successful if they are able to effectively link people to further follow up support, <sup>171</sup> indicating that point-of-care testing may be more successful than at home options as they are able to provide referrals and linkages to further treatment. For populations such as people who inject drugs, simplified care cascades have the potential to treat the most people, but they must be rigorously evaluated to understand their efficacy. <sup>172</sup>

A recent feasibility study in NSW for point of care HCV testing in NSPs tested 174 people. Of those, 150 (86%) had a reactive result. 140 of those people (93%) underwent a point of care RNA test, and 76 (54%) tested positive. While few (5%) waited on site for their RNA results, 63% attended a follow up visit for treatment. 66% of participants in the study preferred point of care testing, and 90% supported NSP staff involvement in testing. 173

These studies demonstrate that testing at NSPs and providing self-testing kits is feasible, successful at reaching people at high risk of HIV and HCV transmission and was able to engage and retain a large proportion into treatment and care. Furthermore, other studies currently underway are investigating the feasibility of providing HCV treatment with peer support at NSPs.<sup>174</sup>

These studies demonstrate the capacity of NSPs to provide effective BBV testing and treatment on site, lowering the structural barriers to such care for PWID, provided these studies are evaluated, funded effectively and NSPs are provided the resources and training to conduct these interventions effectively.

Recommendation 6: That the NSW
Government create a long-term
Innovation Fund to ensure effective and
community driven models of service in
partnership with health, social services
and research institutions are explored,
funded and evaluated – and are
responsive to changing drug use
patterns, new technology and research.

Recommendation 7: That point of care testing and treatment initiatives be resourced, upscaled, rolled out and evaluated in NSPs across NSW.

#### Conclusion

The provision of sterile injecting equipment has been a critical component of Australia's response to HIV since the 1980s and is recognised as a priority across state and federal BBV and alcohol and other drugs strategies.

Relying on the strengths of NSPs in Australia, additional innovations are needed to end HIV transmission in people who inject drugs. This paper has outlined significant opportunities to improve service delivery, reduce stigma, and end HIV transmission for all.

#### **Recommendations:**

- 1. That the NSW Government increase NSP funding as a matter of priority to improve service accessibility and availability of equipment.
- 2. That NSPs be adequately funded and supported to expand and upskill their peer workforce.
- **3.** That the NSW Government remove all barriers to peer distribution of sterile injecting equipment and communicate this action to support health goals around blood borne viruses.
- **4.** That the NSW government implement the recommendations of the Report of the Special Commission of Inquiry into crystal methamphetamine and other amphetamine-type stimulants, including:
  - a. The implementation of a whole-of-government alcohol and other drugs strategy.
  - b. That a Ministerial Advisory Group be established to support the minister responsible for leading the development and implementation of the NSW AOD policy and Drug Action Plan.
  - c. That the NSW Government pilot, and have independently evaluated, a needle and syringe program in one or more custodial facilities in NSW.
  - d. That NSW Health develop and implement a project to reduce stigma.
- **5.** That in responding to the Ice Inquiry, the NSW Government carefully review recommendations and take steps to reduce harm relating to police practice around NSPs.
- **6.** That the NSW Government create a long-term Innovation Fund to ensure effective and community driven models of service in partnership with health, social services and research institutions are explored, funded and evaluated and are responsive to changing drug use patterns, new technology and research.
- **7.** That point of care testing and treatment initiatives be resourced, upscaled, rolled out and evaluated in NSPs across NSW.



# Appendix: ACON's peer-led prevention and early intervention work for people in our communities who inject drugs

#### **ACON's NSPs**

ACON operates three NSPs in Sydney, Lismore and Newcastle.

Throughout 2020-2021 and during the COVID-19 pandemic, ACON continued to provide sterile injecting equipment to people who inject drugs.

Across all our NSP sites, we distributed over 260,000 units of equipment as well as over 5,000 condoms. Throughout the pandemic, changes were implemented to ensure social distancing and the safety of clients and staff during service.

While we saw a drop in the number of clients due to public health orders and some limitations on the services we were able to provide, we recorded over 8,000 occasions of service and over 100 referrals across the three facilities.

The NSP program substantially contributes to efforts to reduce the transmission of blood borne viruses such as HIV and HCV among people who inject drugs in NSW.

ACON's NSPs have also been supporting the NSW Ministry of Health with the DBS study, but had to temporarily pause this support as a result of restrictions related to COVID-19.

In addition, in 2017-18, ACON ran Clinic 414 in partnership with Kirketon Road Centre, assisting 57 clients, including working with five clients with complex needs to complete hepatitis C treatment. Our NSPs continue to refer clients to the Kirketon Road Centre and other local health organisation for their health needs.

ACON's NSP sites in Sydney, Newcastle and Lismore have also been part of a pilot program to dispense Naloxone, a life-saving drug that can reverse the effects of an opioid overdose.

Spearheaded by the Australian Department of Health, ACON staff were fully trained and accredited in dispensing this vital medication.

#### **NSP Outreach**

ACON's NSPs also provide postal services to those unable to access our NSP sites in person.

In the Hunter region, we have implemented a new peer-led Needle and Syringe Outreach service. In 2020-21, this service delivered over 41,000 needles and syringes and other sterile injecting equipment to people in regional areas with limited or no access to existing NSP outlets.

#### **M3THOD**

Devised and led by peers with lived experiences of sexualised drug use, M3THOD is a free and confidential service for gay and bisexual men (cis and trans), trans women and non-binary people who use either crystal methamphetamine or GHB in combination with sex.

M3THOD was launched in March 2022, and is a low threshold, early intervention, peer-based service that aims to break down barriers to health services by providing timely and effective peer-led support.

People can attend a M3THOD appointment either in person or over telehealth and can easily book online. Appointments with peers usually go for about 45 minutes and provide people with an opportunity to explore their relationship with party and play, learn about how they can manage their drug use, and get support for those who want to reduce or change their use.

M3THOD was devised and is delivered in partnership with NSW based alcohol and other drug and sexual health services.

M3THOD is a person-centred service, and our peers can support people who might want to learn how to stay safe and support those who may wish to change to how frequently they are using. It aims to empower people to use more safely, to make informed decisions and stay in control of their health and wellbeing.

#### References

- <sup>1</sup> NSW Health Centre for Population Health (2017). *NSW Needle and Syringe Program Guidelines*. Sydney: NSW Health. Available at: https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2017\_024.pdf
- <sup>2</sup> Commonwealth Department of Health (2019) *National Framework for Alcohol, Tobacco and Other Drug Treatment 2019-2029.* Canberra: Commonwealth of Australia.
- <sup>3</sup> Treloar, C., Mao, L., & Wilson, H. (2016). Beyond equipment distribution in Needle and Syringe Programmes: an exploratory analysis of blood-borne virus risk and other measures of client need. *Harm reduction journal*, 13(1), 1-8.
- <sup>4</sup> Commonwealth Department of Health (2018a) *The Eighth National HIV Strategy*. Canberra: Commonwealth of Australia.
- <sup>5</sup> Commonwealth Department of Health (2018b) *The Fifth National Hepatitis C Strategy*. Canberra: Commonwealth of Australia
- <sup>6</sup> Commonwealth Department of Health (2017) *National Drug Strategy 2017-2026.* Canberra: Commonwealth of Australia
- NSW Ministry of Health (2021). NSW HIV Strategy 2021-2025. Sydney: NSW Ministry of Health.
- drug-ice/

  Australian National Council on Drugs (2013). ANCD position paper: needle and syringe programs. Canberra:
- Australian National Council on Drugs.

  Ommonwealth Department of Health (2017)
- <sup>11</sup> ACON (2019). ACON Submission to NSW Special Commission of Inquiry into the Drug 'Ice'. Sydney: ACON.
- 12 ACON (2019)
- <sup>13</sup> ACON (2020a). Drug Harm Reduction and Treatment: Opportunities to improve outcomes for our communities: ACON Position Paper. Sydney: ACON
- <sup>14</sup> NSW Ministry of Health (2021).
- <sup>15</sup> ACON (2020a)
- <sup>16</sup> The Kirby Institute (2018). *HIV, viral hepatitis and sexually transmissible infections in Australia: annual surveillance report 2018.* Sydney: Kirby Institute, UNSW Sydney.
- <sup>17</sup> NSW Health Centre for Population Health (2017).
- <sup>18</sup> ACON (2020b). Needle and Syringe Program. Available at: <a href="https://www.acon.org.au/what-we-are-here-for/alcohol-drugs/#needle-syringe-program">https://www.acon.org.au/what-we-are-here-for/alcohol-drugs/#needle-syringe-program</a>
- <sup>19</sup> Australian National Council on Drugs (2013), p.10
- <sup>20</sup> Treloar, C., & Fraser, S. (2007). Public opinion on needle and syringe programmes: Avoiding assumptions for policy and practice. *Drug and Alcohol Review*, *26*(4), 355-361.
- <sup>21</sup> Kwon, J. A., Anderson, J., Kerr, C. C., Thein, H. H., Zhang, L., Iversen, J., ... & Wilson, D. P. (2012). Estimating the cost-effectiveness of needle-syringe programs in Australia. *AIDs*, 26(17), 2201-2210.
- <sup>22</sup> Fernandes, R. M., Cary, M., Duarte, G., Jesus, G., Alarcão, J., Torre, C., ... & Carneiro, A. V. (2017). Effectiveness of needle and syringe Programmes in people who inject drugs–An overview of systematic reviews. *BMC public health*, 1/11, 1-15.
- <sup>23</sup> Australian National Council on Drugs (2013)
- <sup>24</sup> Geddes, L., Iversen, J and Maher, L. (2020). *New South Wales Needle and Syringe Program Enhanced Data Collection Report 2016-2020*, The Kirby Institute, UNSW Sydney.
- <sup>25</sup> Treloar & Fraser (2007), p. 360
- <sup>26</sup> Treloar & Fraser (2007), p. 360
- <sup>27</sup> Brener, L., Broady, T., Cama, E., Hopwood, M., Byrne, J., & Treloar, C. (2021). Positive effects of community attachment on internalised stigma and wellbeing among people who inject drugs. *International Journal of Drug Policy, 97*, 103323.
- <sup>28</sup> Solar O, Irwin A. (2010) *A conceptual framework for action on the social determinants of health.* Social Determinants of Health Discussion Paper 2 (Policy and Practice).
- <sup>29</sup> Solar and Irwin (2010)
- <sup>30</sup> Kwon et al. (2012)
- <sup>31</sup> NSW Ministry of Health (2020a). *NSW HIV Strategy 2016-2020: Quarter 4 and Annual 2020 Data report.* Sydney: NSW Ministry of Health
- 32 NSW Ministry of Health (2020a)
- <sup>33</sup> NSW Ministry of Health (2020b). *NSW Hepatitis B and Hepatitis C Strategies 2014-2020 Data Report: 2020 Annual Data Report.* Sydney: NSW Ministry of Health.



- <sup>34</sup> NSW Ministry of Health (2020b).
- <sup>35</sup> Power, J., Amir, S., Brown, G., Rule, J., Johnson, J., Lyons, A., Bourne, A. and Carman, M., (2019). *HIV Futures 9: Quality of Life Among PLHIV in Australia, monograph series number 116*, The Australian Research Centre in Sex, Health and Society, La Trobe University, Melbourne, Australia. Available at https://www.latrobe.edu.au/\_\_data/assets/pdf\_file/0007/1058614/HIV-Futures-9.pdf
- <sup>36</sup> Treloar, C., Rance, J., Yates, K., & Mao, L. (2016). Trust and people who inject drugs: The perspectives of clients and staff of Needle Syringe Programs. *International Journal of Drug Policy, 27*, 138-145.
- <sup>37</sup> UNSW, (2020). *Stigma Indicators Monitoring Project Project Summary Phase 2.* Available at http://unsworks.unsw.edu.au/fapi/datastream/unsworks:67264/bin4ac1279b-124f-4839-a4e3-890939c11f43?view=true&xy=01
- <sup>38</sup> Delhomme, F., Mackie, B. (2020) *Ending HIV-related Stigma for All.* Sydney: ACON.
- <sup>39</sup> Schroeder, S. E., Bourne, A., Doyle, J., Štoove, M., Hellard, M., & Pedrana, A. (2022). "It's not just the hit itself": the social practice of injecting drug use among gay and bisexual men in Australia. *International Journal of Drug Policy, 103*, 103642.
- <sup>40</sup> Wilson, H., Brener, L., Mao, L., & Treloar, C. (2014). Perceived discrimination and injecting risk among people who inject drugs attending Needle and Syringe Programmes in Sydney, Australia. *Drug and Alcohol Dependence*, *144*, 274-278.
- <sup>41</sup> Lancaster, K., Seear, K., & Treloar, C. (2015). Laws prohibiting peer distribution of injecting equipment in Australia: A critical analysis of their effects. *International Journal of Drug Policy, 26*(12), 1198-1206.
- <sup>42</sup> Australian National Council on Drugs (2013), p. 5
- $^{43}$  Australian National Council on Drugs (2013), p. 14
- <sup>44</sup> Treloar, C., & Cao, W. (2005). Barriers to use of Needle and Syringe Programmes in a high drug use area of Sydney, New South Wales. *International Journal of Drug Policy*, *16*(5), 308-315.
- <sup>45</sup> Carruthers, S. (2018). N*eedle and Syringe Programs in Australia: Peer-led Best Practice.* Australian Injecting and Illicit Drug Users League: Canberra
- 46 Australian National Council on Drugs (2013), p. 8
- <sup>47</sup> Brener et al. (2021)
- <sup>48</sup> Wilson et al. (2014), p. 274
- <sup>49</sup> Wilson et al. (2014), p. 276
- <sup>50</sup> Treloar, C., Mao, L., & Wilson, H. (2016). Beyond equipment distribution in Needle and Syringe Programmes: an exploratory analysis of blood-borne virus risk and other measures of client need. *Harm reduction journal, 13*(1), 1-8. <sup>51</sup> Treloar & Cao (2005)
- <sup>52</sup> Brener, L, Bryant, J, Cama, E, Pepolin, L & Harrod, M.E. (2018) Patterns of Peer Distribution of Injecting Equipment at an Authorized Distribution Site in Sydney, Australia. *Substance Use & Misuse*, 53:14, 2405-2412, DOI: 10.1080/10826084.2018.1480039
- <sup>53</sup> Newland, J., Newman, C., & Treloar, C. (2016). "We get by with a little help from our friends": small-scale informal and large-scale formal peer distribution networks of sterile injecting equipment in Australia. *International Journal of Drug Policy*, 34, 65-71.
- <sup>54</sup> Bryant, J., Topp, L., Hopwood, M., Iversen, J., Treloar, C., & Maher, L. (2010). Is point of access to needles and syringes related to needle sharing? Comparing data collected from pharmacies and needle and syringe programs in south-east Sydney. *Drug and Alcohol Review*, *29*(4), 364-370.
- <sup>55</sup> Carruthers (2018)
- <sup>56</sup> Kwon, J. A., İversen, J., Maher, L., Law, M. G., & Wilson, D. P. (2009). The impact of needle and syringe programs on HIV and HCV transmissions in injecting drug users in Australia: a model-based analysis. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, *51*(4), 462-469.
- <sup>57</sup> Bryant et al. (2010)
- 58 Carruthers (2018)
- <sup>59</sup> Bryant et al. (2010), p. 367
- <sup>60</sup> Chan, C., Broady, T., Bavinton, B., Mao, L., Bear, B., Mackie, B., Power, C., Fraser, N., Prestage, G., & Holt, M. (2020). *Gay Community Periodic Survey: Sydney 2020.* Sydney: Centre for Social Research in Health, UNSW Sydney. http://doi.org/10.26190/5eec119ec82fc
- <sup>61</sup> Hegazi, A., Lee, M. J., Whittaker, W., Green, S., Simms, R., Cutts, R., ... & Pakianathan, M. R. (2017). Chemsex and the city: sexualised substance use in gay bisexual and other men who have sex with men attending sexual health clinics. *International journal of STD & AIDS*, 28(4), 362-366.
- <sup>62</sup> Bryant, J., Hopwood, M., Dowsett, G. W., Aggleton, P., Holt, M., Lea, T., ... & Treloar, C. (2018). The rush to risk when interrogating the relationship between methamphetamine use and sexual practice among gay and bisexual men. *International Journal of Drug Policy*, *55*, 242-248.
- <sup>63</sup> Geddes, Iversen and Mayer (2020), p. 13

```
<sup>64</sup> van Beek, I., & Chronister, K. J. (2015). Performance and image enhancing drug injectors' access to needle syringe programs: Responding to a public policy dilemma. International Journal of Drug Policy, 26(9), 868-874.
```

<sup>65</sup> Geddes, Iversen and Mayer (2020)

66 van Beek & Chronister (2015)

67 van Beek & Chronister (2015)

<sup>68</sup> Iversen, J., Hope, V. D., & McVeigh, J. (2016). Access to needle and syringe programs by people who inject image and performance enhancing drugs. *International Journal of Drug Policy*, *31*, 199-200.

<sup>69</sup> Larance, B., Degenhardt, L., Copeland, J., & Dillon, P. (2008). Injecting risk behaviour and related harm among men who use performance-and image-enhancing drugs. *Drug and alcohol review*, 27(6), 679-686.

<sup>70</sup> Van de Ven, K., Maher, L., Wand, H., Memedovic, S., Jackson, E., & Iversen, J. (2018). Health risk and health seeking behaviours among people who inject performance and image enhancing drugs who access needle syringe programs in Australia. *Drug and Alcohol Review*, *37*(7), 837-846.

<sup>71</sup> World Health Organisation (2015). *Policy brief: Transgender people and HIV.* Geneva: WHO.

<sup>72</sup> Rotondi, N. K., Bauer, G. R., Scanlon, K., Kaay, M., Travers, R., & Travers, A. (2013). Nonprescribed hormone use and self-performed surgeries: "do-it-yourself" transitions in transgender communities in Ontario, Canada. *American journal of public health*, 103(10), 1830-1836.

<sup>73</sup> Rotondi et al. (2013)

<sup>74</sup> Stutterheim SÈ, van Dijk M, Wang H, Jonas KJ (2021) The worldwide burden of HIV in transgender individuals: An updated systematic review and meta-analysis. *PLoS ONE* 16(12): e0260063. https://doi.org/10.1371/journal.pone.0260063

<sup>75</sup> Stardust, Z., Cook, T., Hopkins, L., Gray, J., Olsen, K., (2017). Effective and Meaningful Inclusion of Trans and Gender Diverse People in HIV Prevention. Sydney: ACON and PASH.tm.

<sup>76</sup> Newland, Newman & Treloar (2016), p. 66

<sup>77</sup> Geddes, Iversen and Mayer (2020)

<sup>78</sup> Iversen, J., Page, K., Madden, A. & Maher, L. (2015). HIV, HCV, and Health-Related Harms Among Women Who Inject Drugs. *JAIDS Journal of Acquired Immune Deficiency Syndromes, 69*, S176-S181. doi: 10.1097/QAI.0000000000000055.
 <sup>79</sup> Brener, L., Spooner, C., & Treloar, C. (2010). Preventing transitions to injecting amongst young people: What is the role of Needle and Syringe Programmes?. *International Journal of Drug Policy, 21*(3), 160-164.
 <sup>80</sup> Treloar & Cao (2005)

<sup>81</sup> Iversen, J., Page, K., Madden, A. & Maher, L. (2015). HIV, HCV, and Health-Related Harms Among Women Who Inject Drugs. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, *69*, S176-S181. doi: 10.1097/QAI.000000000000559.

82 Iverson et al. (2015), p. 177

<sup>83</sup> Bryant, J., Brener, L., Hull, P., & Treloar, C. (2010). Needle sharing in regular sexual relationships: an examination of serodiscordance, drug using practices, and the gendered character of injecting. *Drug and Alcohol Dependence*, 107(2-3), 182-187.

<sup>84</sup> Iverson et al. (2015), p. 177

<sup>85</sup> Iverson et al. (2015), p. 176

<sup>86</sup> Coker, A. L. (2007). Does physical intimate partner violence affect sexual health? A systematic review. *Trauma, Violence, & Abuse, 8*(2), 149-177.

<sup>87</sup> Brener, Spooner & Treloar (2010)

<sup>88</sup> Brener, Spooner & Treloar (2010)

<sup>89</sup> Brener, Spooner & Treloar (2010)

90 NSW Government (2020). Interim NSW Government response to the Special Commission of Inquiry into the Drug "Ice". Sydney: NSW Government. Available at: <a href="https://www.dpc.nsw.gov.au/assets/dpc-nsw-gov-au/publications/The-Drug-ice-1546/01-Interim-NSW-Government-response-to-the-Special-Commission-of-Inquiry-into-the-Drug-Ice.pdf">https://www.dpc.nsw.gov.au/assets/dpc-nsw-gov-au/publications/The-Drug-ice-1546/01-Interim-NSW-Government-response-to-the-Special-Commission-of-Inquiry-into-the-Drug-Ice.pdf</a>
191 Howard, (2020)

92 Australian National Council on Drugs (2013), p. 23

<sup>93</sup> Treloar C, McCredie L, Lloyd AR (2016) The Prison Economy of Needles and Syringes: What Opportunities Exist for Blood-bornee Virus Risk Reduction When Prices Are so High? *PLoS ONE* 11 (9): e0162399. doi:10.1371/journal.pone.0162399

<sup>94</sup> Commonwealth Department of Health (2018b), p. 23

95 Australian Institute of Health and Welfare. (2019). *The health of Australia's prisoners 2018*. Canberra: AIHW, p. 49

96 Treloar, McCredie & Lloyd (2016),

<sup>97</sup> Treloar, McCredie & Lloyd (2016), pp. 6-7

98 Australian Institute of Health and Welfare. (2019), p. 99

<sup>99</sup> Lafferty, L., Rance, J., & Treloar, C. (2018). Who goes first? Understanding hepatitis C risk among injecting networks in the prison setting. *Drug and alcohol dependence*, *183*, 96-101.

100 NSW Ministry of Health (2020a)

- <sup>101</sup> Delhomme, F., Baiocchi, M., Bradfield, L., Brown, K., Draper, A., Leha, J., Moffitt, T., Smith, J., Sparks, M., Wimbis, J., Ward, J. (2019) *HIV in the NSW Aboriginal and Torres Strait Islander population.* Sydney: ACON.
- 102 NSW Ministry of Health (2020a)
- <sup>103</sup> Delhomme et al. (2019) p. 10
- <sup>104</sup> Paquette, D., McEwan, M., & Bryant, J. (2013). Risk practices among Aboriginal people who inject drugs in New South Wales, Australia. AIDS and Behavior, 17(7), 2467-2473.
- <sup>105</sup> Australian Institute of Health and Welfare. (2019)
- <sup>106</sup> Awofeso, N. (2011). Racism: a major impediment to optimal Indigenous health and health care in Australia. *Australian Indigenous Health Bulletin*, 11(3), 1-8.
- <sup>107</sup> Gatwiri, K., Rotumah, D., & Rix, E. (2021). BlackLivesMatter in Healthcare: Racism and Implications for Health Inequity among Aboriginal and Torres Strait Islander Peoples in Australia. *International Journal of Environmental Research and Public Health*, *18*(9), 4399.
- <sup>108</sup> Larson, A., Gillies, M., Howard, P. J., & Coffin, J. (2007). It's enough to make you sick: the impact of racism on the health of Aboriginal Australians. *Australian and New Zealand journal of public health*, 31(4), 322-329.
- <sup>109</sup> Kairuz, C. A., Casanelia, L. M., Bennett-Brook, K., Coombes, J., & Yadav, U. N. (2021). Impact of racism and discrimination on physical and mental health among Aboriginal and Torres Strait islander peoples living in Australia: a systematic scoping review. *BMC public health*, 21(1), 1-16.
- <sup>110</sup> Fogarty, W., Bulloch, H., McDonnell, S. & Davis, M. (2018). *Deficit Discourse and Indigenous Health: How narrative framings of Aboriginal and Torres Strait Islander people are reproduced in policy.* The Lowitja Institute, Melbourne.
- Heard S, Iversen J, Geddes L, Kwon JA and Maher L (2021). *Needle Syringe Program National Minimum Data Collection: National Data Report 2021.* Sydney: Kirby Institute, UNSW Sydney.
- <sup>112</sup> Heard et al. (2021)
- <sup>113</sup> Iversen, J., Peacock, A., Price, O., Byrne, J., Dunlop, A., & Maher, L. (2021). COVID-19 vaccination among people who inject drugs: Leaving no one behind. *Drug and alcohol review*.
- <sup>114</sup> Dietze, P. M., & Peacock, A. (2020). Illicit drug use and harms in Australia in the context of COVID-19 and associated restrictions: Anticipated consequences and initial responses. *Drug and alcohol review, 39*(4), 297.
- <sup>115</sup> Iversen, J., Sabin, K., Chang, J., Morgan Thomas, R., Prestage, G., Strathdee, S. A., & Maher, L. (2020). COVID-19, HIV and key populations: cross-cutting issues and the need for population-specific responses. *Journal of the International AIDS Society, 23*(10), e25632.
- <sup>116</sup> Vasylyeva, T. I., Smyrnov, P., Strathdee, S., & Friedman, S. R. (2020). Challenges posed by COVID-19 to people who inject drugs and lessons from other outbreaks. *Journal of the International AIDS Society, 23*(7), e25583.
- <sup>117</sup> Hammoud, MA., Storer, D., Holt, M., Degenhardt, L., Jin, F., Maher, L., Bourne, A., Lea, T., Bavinton, B., Murphy, D., Prestage, G. (2020). Reductions in crystal methamphetamine and gamma-hydroxybutyrate use coincide with changes in sexual behaviour during COVID-19 physical distancing among gay and bisexual men in Australia: Conference Presentation.
- <sup>118</sup> UNAIDS (2011). *Getting to Zero Inequity: Building bridges between AIDS and the social determinants of health.*
- <sup>119</sup> Australian National Council on Drugs (2013), p. 20
- 120 NSW Ministry of Health (2020b)
- 121 Carruthers (2018)
- <sup>122</sup> Leonard, L., DeRubeis, E., Pelude, L., Medd, E., Birkett, N., & Seto, J. (2008). "I inject less as I have easier access to pipes" Injecting, and sharing of crack-smoking materials, decline as safer crack-smoking resources are distributed. *International Journal of Drug Policy*, 19, 255–264
- <sup>123</sup> Commonwealth Department of Health (2018a), p. 22
- 124 Race, K., T. Lea, D. Murphy, and K. Pienaar. (2017). 'The future of drugs: recreational drug use and sexual health among gay and other men who have sex with men.' *Sexual Health*, 14:42–50.
- <sup>125</sup> Larance et al. (2008)
- 126 Iversen, Hope & McVeigh (2016)
- <sup>127</sup> Rotondi et al. (2013)
- <sup>128</sup> Australian National Council on Drugs (2013), p. 18
- <sup>129</sup> Brener et al. (2021)
- <sup>130</sup> Bryant et al. (2010)
- <sup>131</sup> NSW Mental Health Commission (2014). Living Well: A Strategic Plan for Mental Health in NSW. Sydney, NSW Mental Health Commission.
- <sup>132</sup> Molyneux, A., Delhomme, F., Mackie, B. (2021) *It's Who We Are: Exploring the Role, Impact and Value of Peers*. Sydney: ACON.
- 133 Molyneux, Delhomme & Mackie (2021)
- <sup>134</sup> Australian National Council on Drugs (2013), p. 17
- <sup>135</sup> AIVL (2006) A Framework for Peer Education by drug user organisations. Canberra: AIVL
- 136 Brener et al. (2021), p. 5
- <sup>137</sup> Brener et al. (2021), p. 6

```
138 Drysdale, K., Bryant, J., Dowsett, G. W., Lea, T., Treloar, C., Aggleton, P., & Holt, M. (2021). Priorities and practices of
risk reduction among gay and bisexual men in Australia who use crystal methamphetamine for sex. International
Journal of Drug Policy, 93, 103163, p. 6
<sup>139</sup> Bryant et al. (2018) p. 246
<sup>140</sup> Molyneux, Delhomme & Mackie (2021)
141 Ending HIV (n.d.) Talk, test, test, trust guide. Available at: https://endinghiv.org.au/tribes/in-a-relationship/talk-test-
test-trust-guide/
<sup>142</sup> The Institute of Many (n.d.) U=U. Available at: <a href="https://theinstituteofmany.org/home/u-u/">https://theinstituteofmany.org/home/u-u/</a>
<sup>143</sup> Treloar, C., & Abelson, J. (2005). Information exchange among injecting drug users: A role for an expanded peer
education workforce. International Journal of Drug Policy, 16(1), 46-53.
144 Treloar & Abelson (2005)
<sup>145</sup> Schroeder et al. (2022)
146 ACON (2019)
<sup>147</sup> ACON (2020a)
148 AIVL (2006)
<sup>149</sup> Lancaster, Seear & Treloar (2015)
<sup>150</sup> Lancaster, Seear & Treloar (2015)
<sup>151</sup> Australian National Council on Drugs (2013)
<sup>152</sup> Brener, L et al. (2018)
<sup>153</sup> Brener et al. (2018)
<sup>154</sup> Newland, Newman & Treloar (2016)
<sup>155</sup> Brener et al. (2018)
<sup>156</sup> Newland, Newman & Treloar (2016)
<sup>157</sup> Lancaster, Seear & Treloar (2015)
<sup>158</sup> Commonwealth Department of Health (2018a), p. 31
<sup>159</sup> Howard, D. (2020).
<sup>160</sup> NSW Government (2020).
<sup>161</sup> Australian National Council on Drugs (2013), p. 23
<sup>162</sup> Treloar, McCredie, & Lloyd (2016), p. 12
163 Lazarus, J. V., Safreed-Harmon, K., Hetherington, K. L., Bromberg, D. J., Ocampo, D., Graf, N., ... & Wolff, H. (2018).
Health outcomes for clients of needle and syringe programs in prisons. Epidemiologic reviews, 40(1), 96-104.
<sup>164</sup> Treloar, McCredie, & Lloyd (2016), p. 12
<sup>165</sup> Australian National Council on Drugs (2013), p. 15
<sup>166</sup> Brener et al. (2021)
<sup>167</sup> Treloar et al. (2016)
<sup>168</sup> Treloar, Mao & Wilson (2016)
169 Carruthers (2018)
<sup>170</sup> Peiper, N. C., Shamblen, S., Gilbertson, A., Guest, G., Kopp, M., Guy, L., & Rose, M. R. (2022). Acceptability of a HIV
```

case-finding for people who inject drugs via dried blood spot testing in specialist addiction services and prisons. *BMJ open*, 3(8), e003153.

172 Bajis, S., Dore, G. J., Hajarizadeh, B., Cunningham, E. B., Maher, L., & Grebely, J. (2017). Interventions to enhance testing, linkage to care and treatment uptake for hepatitis C virus infection among people who inject drugs: a

171 Martin, N. K., Hickman, M., Miners, A., Hutchinson, S. J., Taylor, A., & Vickerman, P. (2013). Cost-effectiveness of HCV

self-testing program among people who use illicit drugs. International Journal of Drug Policy, 103, 103613.

- systematic review. International Journal of Drug Policy, 47, 34-46.

  173 Williams, B., Howell, J., Doyle, J., Thompson, A. J., Draper, B., Layton, C., ... & Pedrana, A. (2019). Point-of-care hepatitis C testing from needle and syringe programs: An Australian feasibility study. *International Journal of Drug Policy, 72*, 91-98.
- <sup>174</sup> Dore, G. J., & Hajarizadeh, B. (2018). Elimination of hepatitis C virus in Australia: laying the foundation. *Infectious Disease Clinics*, 32(2), 269-279.