

EDITORIAL

COVID-19 vaccination among people who inject drugs: Leaving no one behind

Timely rollout and widespread uptake of safe and effective vaccines will be necessary to reduce mortality, improve health outcomes, restore societal well-being and inspire economic recovery from the coronavirus disease (COVID-19) pandemic. Unprecedented efforts to accelerate vaccine development have resulted in the emergency or expedited approval of several COVID-19 vaccines [1]. The Australian Government has secured access to both the Pfizer and the University of Oxford/AstraZeneca vaccines and plans to commence a national COVID-19 vaccine rollout in early 2021. Phase 1a of the program will immunise priority populations, including frontline health-care workers, quarantine and border staff and aged care and disability care residents and staff [2]. This will be followed by Phase 1b, delivering doses to people aged over 70 years, Aboriginal and Torres Strait Islander people aged over 55 years, younger adults with underlying medical conditions and critical and high-risk workers [3]. These priority populations are similar to those identified in international vaccination efforts [4].

The Australian Technical Advisory Group on Immunisation (ATAGI) has specified those with an increased risk of developing severe disease or dying from COVID-19, including people with pre-existing select medical conditions, as priority populations for immunisation [5]. The ATAGI also noted that communities of low socioeconomic status and those belonging to culturally and linguistically diverse backgrounds are at increased risk of adverse health outcomes from COVID-19 based on international data [5]. While the Commonwealth has provided in-principle agreement to prioritise people living with human immunodeficiency virus (HIV) for vaccination during Phases 1a and 1b, the Australian Society for HIV Medicine, along with relevant peak bodies, is also advocating to ensure the strategy appropriately prioritises people living with all blood-borne viral infections [6].

Although only one in four people infected with SARS Cov2, the virus that causes COVID-19, have comorbidities, 60–90% of those hospitalised have physical health comorbidities [7]. People reporting problematic use of alcohol and other drugs may represent a high-risk

population in this respect, given their high prevalence of comorbid health conditions [8]. In particular, people who inject drugs (PWID) may be at elevated risk of adverse outcomes from COVID-19 given their high prevalence of underlying medical conditions, including respiratory and pulmonary disease, chronic liver disease, cardiovascular disease, cerebrovascular disease, diabetes and compromised immunity [9,10]. Importantly, such conditions may be underdiagnosed in this population [11,12].

Early data also indicate that COVID-19 has had a significant impact on patterns of injection drug use and service uptake. Interviews with 884 PWID recruited from Australian capital cities in mid-2020 showed that 1 in 10 (12%) reported difficulties accessing sterile needles and syringes since COVID-19 restrictions were introduced [13]. Among 1324 PWID attending Australian needle and syringe programs (NSP) surveyed in late 2020, the same proportion (12%) reported that they had found it more difficult to access NSP. Of those who last injected an opioid ($n = 588$), 5% reported starting depot buprenorphine, 15% had started or increased the number of takeaway opioid agonist treatment doses, and 26% had accessed take-home naloxone since the start of the pandemic (Australian NSP Survey 2020, unpublished data).

However, compared to the general population, PWID have low rates of vaccine uptake and completion, including for hepatitis B [14]. A recent survey of 872 Australian PWID found that only 24% reported being vaccinated for the 2020 influenza season (i.e. since March 2020) [15]—significantly lower than the 49% of the general population who reported vaccination between January and May 2020 [16]. In relation to hypothetical acceptability of a COVID-19 vaccine, 57% of a sample of 100 PWID interviewed in Melbourne in December 2020 indicated that they would ‘definitely’ or ‘probably’ get vaccinated were a vaccine available [17]. However, 15% indicated that they would ‘definitely not’ get the vaccine and 20% were undecided. While the most frequently nominated concerns were related to vaccine safety, and anti-vaccination beliefs were rare, COVID vaccine acceptability was lower than the 77% observed in a recent

poll of the general population [18]. These data indicate the need for increased efforts to inform PWID about vaccine efficacy and safety to reduce hesitancy and uncertainty and increase acceptability.

The logistics of reaching and vaccinating PWID are not insignificant. While the Australian government is responsible for selecting, purchasing and transporting vaccines and specifying priority populations, state and territory governments are responsible for providing the vaccine delivery workforce and identifying specific vaccination sites. Vaccination locations that have been identified include general practice (GP), GP respiratory clinics, dedicated vaccination clinics, workplace clinics, locations identified by the Aboriginal and Torres Strait Islander Community Controlled Health sector, pharmacies and in-reach vaccination for aged care facilities and 'other vulnerable people or targeted populations who cannot access another location' [5].

It will be important to have a range of effective methods of vaccine rollout targeting PWID and other vulnerable groups, including incarcerated populations. Despite being at higher risk of a wide range of physical and mental health disorders [19], PWID are under-served in relation to primary health care and are more likely to present late, increasing the risk of significant mortality and morbidity [20,21]. PWID are also over-represented among emergency department presentations [22,23]. A study of 2395 Australian PWID found that emergency departments were the health provider most recently accessed by 14% of respondents [24]. A pilot project that placed a nurse-led mobile immunisation service at locations accessed by vulnerable populations in Australia, including homeless shelters and an NSP, successfully increased the uptake of influenza vaccine [25]. Along with emergency departments, NSP, homeless shelters/temporary accommodation and prisons provide important access points to PWID; with an appropriately trained and qualified immunisation workforce and resources, including access to anaphylaxis management, these services could potentially be tasked to access and provide opportunistic vaccination to this population.

With an estimated 1280 publicly funded alcohol and other drug (AOD) treatment services [26] and 2950 opioid agonist treatment (methadone and buprenorphine) dosing points [27] in Australia, AOD treatment services and dosing points also provide an important touchpoint for COVID-19 immunisation rollout to vulnerable populations, ideally as sites for vaccination and, at minimum, as settings for education and referral. A recent study found that PWID who reported being vaccinated for influenza in the past year were more likely to be enrolled in opioid agonist treatment [15]. Contact with the health system through AOD treatment is also an important way to

communicate health messages designed to increase vaccine confidence. AOD treatment providers, especially those with specialist peer workers, have the infrastructure and experience with low literacy health communications to work with clients to encourage cooperation with public health messages and recommendations, reduce misunderstanding and improve knowledge.

Consideration of other evidence-based strategies, such as conditional cash transfers or contingency management, may also be necessary to ensure that COVID-19 vaccines reach PWID in a timely manner, especially because effective immunisation will require two doses within a specified time frame. Our randomised trial of per-dose incentives for hepatitis B vaccine completion found that PWID randomised to the incentive condition were more than three times more likely to complete the series than those randomised to the control condition [28]. The use of incentives to encourage vaccine uptake and completion by PWID has also been adopted by the World Health Organization [29]. People with lived experience of injecting drug use have an essential role to play in informing and driving strategies to maximise vaccination uptake; community-led networks must be key partners in developing and delivering vaccination systems and strategies [30]. While the strong engagement with scientific research and a commitment to best practice helps to ensure that Australia's services are well placed to interact with the drug-using community, bolstering community infrastructure and resources to disseminate information and build trust and confidence will be crucial to this engagement.

For many vulnerable communities, including PWID, COVID-19 represents a pandemic on top of one or more epidemics [31], and the constant need for vigilance and risk reduction on multiple fronts is challenging and exhausting. In times of crisis, these communities face challenges such as being unable to access health services or receiving the same quality of health care as others due to high rates of social and economic disadvantage, homelessness and criminalisation, as well as low health literacy and stigma and discrimination from health-care providers [10]. Consistent with the right to science, there is a need for public access to the knowledge and products of science in this pandemic [32]. Equity of access to interventions to prevent, diagnose and treat COVID-19 means ensuring that vaccines are accessible and available free of charge to everyone everywhere, especially those who are under-served and at increased risk of adverse health outcomes [33]. Given strong peer networks, high coverage of treatment and harm reduction interventions [34,35], and the availability of other access points, which could serve as settings for COVID-19 immunisation and/or points of

contact for vaccine education and referral, Australia is well positioned to ensure PWID are not left behind.

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