

Commentary on Pardo et al. (2020): Addressing fentanyl-related harms: maximising the efficiency of innovative interventions.

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Abstract:

As fentanyl expands into new markets, innovative interventions are needed to reduce further harms. In this context, public health responses that combine the knowledge and expertise of people who use drugs with interventions attending to the social-structural production of fentanyl-related harm should be pursued.

Pardo and colleagues highlight the need for innovative interventions in a ‘new synthetic opioid era’ (1). This is a timely and welcome piece given the increase in fatal opioid overdoses linked to fentanyl and analogues in North America and the ‘emerging’ threat they pose to people who use drugs (PWUD) in the UK (2). In this paper, we expand on this debate and discuss two further options that might assist with the innovation and development of future interventions.

Although we recognise a need to act with urgency to prevent further harm, we also underline the importance of combining policy or technological innovations with the knowledge and expertise of PWUD themselves (3, 4). Indeed, as fentanyl expands into and becomes a feature of new drug markets (5), it is important to consider how this is likely to shape the responses of PWUD to its presence, and impact on their acceptability and use of interventions designed to reduce harm. In communities where fentanyl-adulterated heroin is endemic there is evidence that some PWUD are accepting of fentanyl through lack of alternatives, and in some cases have even developed a preference for it (4, 6). Whilst testing and public health messaging may therefore have utility at a stage where individuals are concerned about fentanyl exposure, they are unlikely to discourage PWUD if traditional opioids have become displaced from the market, or deter those who are actively seeking fentanyl (3, 7). Our point here is not that these existing measures have little value, but rather, to illustrate the importance of understanding the situated and pragmatic responses of PWUD to fentanyl and associated interventions (3). In this context, we suggest any innovation or development of future measures should be considered alongside the lived contexts of fentanyl use if they are to be acceptable and ultimately effective (3).

We agree with Pardo and colleagues that ‘innovation can begin at the margins’ and consider this a useful setting for the invention of novel approaches. There is evidence that some PWUD initiate their own protective strategies in response to fentanyl or adulterated-heroin, including switching from injecting to smoking, incremental dosing, or seeking to identify the presence of fentanyl through visual appearance or taste (3, 4, 8). Understanding these ‘indigenous responses’ can enable the insertion of pragmatic solutions into future interventions that attend to the immediate needs and priorities of some PWUD (8). Many harm reduction programmes evolved out of peer-led efforts in response to the HIV epidemic of the 1980s and are now evidenced public health interventions (e.g. needle syringe programmes) (3). The emergence of fentanyl provides a similar context where we can harness the expertise of PWUD to develop innovative and effective responses.

Secondly, it is reasonable to assume that pre-existing social-structural factors will continue to limit the risk-reducing capacities of future interventions, regardless of any innovation. Whilst fentanyl-related deaths in North America are elevated in socio-economically disadvantaged regions (9) and urban areas with large homeless and street-injecting scenes (10), substantial increases have recently occurred among demographics with traditionally lower levels of opioid use, including women (11) and those from rural communities (12). Regardless of location, these are populations disproportionately impacted by social, political and economic systems of disadvantage (e.g. stigma, gendered inequities, homelessness, socio-economic deprivation), all of which shape susceptibility to drug-related harms (13).

Recognising this, future interventions might benefit from orientating toward an approach that responds to these multiple vulnerabilities. This would involve moving beyond individual-level approaches seeking to modify behaviour to one attuned to the environment(s) – whether social, political, economic or physical – in which harms occur (13). Previous work has documented how Safe Injecting Facilities (SIFs) and low-threshold, integrated services (‘one-stop-shop’ models) - whereby multiple services addressing complex health and social care issues are co-located within one facility – can mediate the contextual factors producing drug-related harms (e.g. poverty, housing instability, gendered risk) through the provision of broader environmental and social support (14-16). This includes facilitating access to medical care, food and shelter and social welfare support (14, 15). Whilst such interventions can lead to the creation of enabling environments that align with the diverse and intersecting needs of affected populations, we recognise that their implementation often involves difficulty. Here, community and drug-user activism have been instrumental in altering legal and bureaucratic processes opposed to the operation of SIFs, for example, (17), and similar advocacy can be effective in establishing innovative interventions in locations where social, legal and political barriers limit implementation (18). Pursuing broader social-structural reforms might be challenging, but, in tandem with the inclusion of PWUD in key policy and public health dialogues, can lead to opportunities for the creation of truly innovative interventions in the synthetic opioid era (4, 19).

1. PARDO B., TAYLOR J., CAULKINS J., REUTER P., KILMER B. The dawn of a new synthetic opioid era: the need for innovative interventions, *Addiction* 2020: n/a.
2. ADVISORY COUNCIL ON THE MISUSE OF DRUGS. Misuse of fentanyl and fentanyl analogues London: ACMD; 2020.
3. MCGOWAN C. R., HARRIS M., PLATT L., HOPE V., RHODES T. Fentanyl self-testing outside supervised injection settings to prevent opioid overdose: Do we know enough to promote it?, *International Journal of Drug Policy* 2018: 58: 31-36.
4. CICCARONE D., ONDOCSIN J., MARS S. G. Heroin uncertainties: Exploring users' perceptions of fentanyl-adulterated and -substituted 'heroin', *International Journal of Drug Policy* 2017: 46: 146-155.
5. SHOVER C. L., FALASINNU T. O., DWYER C. L., SANTOS N. B., CUNNINGHAM N. J., FREEDMAN R. B. et al. Steep increases in fentanyl-related mortality west of the Mississippi River: Recent evidence from county and state surveillance, *Drug and alcohol dependence* 2020: 216: 108314-108314.
6. CARROLL J. J., MARSHALL B. D. L., RICH J. D., GREEN T. C. Exposure to fentanyl-contaminated heroin and overdose risk among illicit opioid users in Rhode Island: A mixed methods study, *International Journal of Drug Policy* 2017: 46: 136-145.
7. KARAMOUZIAN M., DOHOO C., FORSTING S., MCNEIL R., KERR T., LYSYSHYN M. Evaluation of a fentanyl drug checking service for clients of a supervised injection facility, Vancouver, Canada, *Harm Reduction Journal* 2018: 15: 46.
8. HARRIS M., FORSETH K., RHODES T. "It's Russian roulette": Adulteration, adverse effects and drug use transitions during the 2010/2011 United Kingdom heroin shortage, *International Journal of Drug Policy* 2015: 26: 51-58.
9. MCLEAN K. "There's nothing here": Deindustrialization as risk environment for overdose, *International Journal of Drug Policy* 2016: 29: 19-26.
10. BC CORONERS SERVICE. Illicit Drug Toxicity Deaths in BC, January 1, 2010 – August 31, 2020 Victoria BC: Ministry of Public Safety & Solicitor General; 2020.
11. COLLINS A. B., BARDWELL G., MCNEIL R., BOYD J. Gender and the overdose crisis in North America: Moving past gender-neutral approaches in the public health response, *International Journal of Drug Policy* 2019: 69: 43-45.
12. FADANELLI M., CLOUD D. H., IBRAGIMOV U., BALLARD A. M., PROOD N., YOUNG A. M. et al. People, places, and stigma: A qualitative study exploring the overdose risk environment in rural Kentucky, *International Journal of Drug Policy* 2019: 102588.
13. RHODES T. Risk environments and drug harms: A social science for harm reduction approach, *International Journal of Drug Policy* 2009: 20: 193-201.
14. COLLINS A. B., PARASHAR S., HOGG R. S., FERNANDO S., WORTHINGTON C., MCDUGALL P. et al. Integrated HIV care and service engagement among people living with HIV who use drugs in a setting with a community-wide treatment as prevention initiative: a qualitative study in Vancouver, Canada, *Journal of the International AIDS Society* 2017: 20: 21407.
15. MCNEIL R., SMALL W. 'Safer environment interventions': a qualitative synthesis of the experiences and perceptions of people who inject drugs, *Social Science & Medicine* 2014: 106: 151-158.

16. FAIRBAIRN N., SMALL W., SHANNON K., WOOD E., KERR T. Seeking refuge from violence in street-based drug scenes: women's experiences in North America's first supervised injection facility, *Social Science & Medicine* 2008: 67: 817-823.
17. KERR T., MITRA S., KENNEDY M. C., MCNEIL R. Supervised injection facilities in Canada: past, present, and future, *Harm Reduction Journal* 2017: 14: 28.
18. BLANKENSHIP K. M., FRIEDMAN S. R., DWORKIN S., MANTELL J. E. Structural interventions: concepts, challenges and opportunities for research, *Journal of Urban Health* 2006: 83: 59-72.
19. BELETSKY L., DAVIS C. S. Today's fentanyl crisis: Prohibition's Iron Law, revisited, *International Journal of Drug Policy* 2017: 46: 156-159.